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# 1 DOCUMENT-LEVEL TEMPLATES

**Table 1: Required and Optional Sections for Each Document Type**

Document Type	Required Sections	Optional Sections
<a href="#">Outpatient Procedure Component Denominator for Procedure Report (V6)</a> urn:hl7ii:2.16.840.1.113883.10.20.5.56:2025-05-01	<a href="#">Procedure Details Section in an OPC Denominator for Procedure</a> <a href="#">Infection Risk Factors Section in an OPC Denominator for Procedure</a>	<a href="#">NHSN Comment Section</a>
<a href="#">Antimicrobial Resistance Option (ARO) Summary Report (V3)</a> urn:hl7ii:2.16.840.1.113883.10.20.5.46:2019-04-01	<a href="#">Summary Data Section (ARO) (V3)</a>	<a href="#">Report No Events Section</a> <a href="#">NHSN Comment Section</a>
<a href="#">Antimicrobial Use (AUP) Summary Report (V2)</a> urn:hl7ii:2.16.840.1.113883.10.20.5.44:2015-04-01	<a href="#">Summary Data Section (AUP) (V2)</a>	N/A
<a href="#">HAI AUR Antimicrobial Resistance Option (ARO) Report (V10)</a> urn:hl7ii:2.16.840.1.113883.10.20.5.31:2025-05-01	<a href="#">Findings Section in an ARO Report (V5)</a>	N/A
<a href="#">HAI Bloodstream Infection Report (BSI) (V9)</a> urn:hl7ii:2.16.840.1.113883.10.20.5.32:2025-05-01	<a href="#">Infection Risk Factors Section in a BSI Report (V3)</a> <a href="#">Infection Details Section in a BSI Report</a> <a href="#">Findings Section in an Infection-Type Report</a> <a href="#">COVID-19 Section (V2)</a>	<a href="#">NHSN Comment Section</a>
<a href="#">HAI Central-Line Insertion Practice Numerator Report (V7)</a> urn:hl7ii:2.16.840.1.113883.10.20.5.36:2025-05-01	<a href="#">Infection Risk Factors Section in a CLIP Report (V2)</a> <a href="#">Procedure Details Section in a CLIP Report</a>	N/A
<a href="#">HAI Evidence of Infection (Dialysis) Report (V11)</a> urn:hl7ii:2.16.840.1.113883.10.20.5.37:2025-05-01	<a href="#">Risk Factors Section in an Evidence of Infection (Dialysis) Report (V5)</a> <a href="#">Details Section in an Evidence of Infection (Dialysis) Report (V6)</a>	<a href="#">Findings Section in an Infection-Type Report</a>
<a href="#">HAI Laboratory-Identified</a>	<a href="#">Findings Section in a LIO</a>	N/A

Document Type	Required Sections	Optional Sections
<a href="#">Organism (LIO) Report (V7)</a> urn:hl7ii:2.16.840.1.113883.10.20.5.38:2025-05-01	<a href="#">Report (V2)</a> <a href="#">Encounters Section in a LIO Report (V2)</a>	
<a href="#">HAI Population Summary Report Generic Constraints</a> urn:oid:2.16.840.1.113883.10.20.5.4.28	N/A	N/A
<a href="#">HAI Procedure Denominator Report (V7)</a> urn:hl7ii:2.16.840.1.113883.10.20.5.35.2:2025-05-01	<a href="#">Procedure Details Section in a Procedure Report (V2)</a> <a href="#">Infection Risk Factors Section in a Procedure Report</a>	N/A
<a href="#">HAI Single-Person Report Generic Constraints (V6)</a> urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01	<a href="#">NHSN Social History Section (V4)</a>	N/A
<a href="#">HAI Surgical Site Infection Report (SSI) (V8)</a> urn:hl7ii:2.16.840.1.113883.10.20.5.33.2:2025-05-01	<a href="#">Infection Details Section in an SSI Report (V2)</a> <a href="#">Findings Section in an Infection-Type Report</a> <a href="#">COVID-19 Section (V2)</a>	N/A
<a href="#">HAI Urinary Tract Infection Numerator Report (UTI) (V7)</a> urn:hl7ii:2.16.840.1.113883.10.20.5.34:2025-05-01	<a href="#">Infection Risk Factors Section in a UTI Report (V2)</a> <a href="#">Infection Details Section in a UTI Report</a> <a href="#">Findings Section in an Infection-Type Report</a> <a href="#">COVID-19 Section (V2)</a>	N/A
<a href="#">Healthcare Associated Infection Report</a> urn:oid:2.16.840.1.113883.10.20.5.4.25	N/A	N/A
<a href="#">Healthcare Personnel Influenza Vaccination (HP-FLU) Summary Report</a> urn:hl7ii:2.16.840.1.113883.10.20.5.50:2017-04-01	<a href="#">Summary Data Section (HP-FLU)</a>	<a href="#">NHSN Comment Section</a>
<a href="#">Hemovigilance (HV) Summary Report (V2)</a> urn:hl7ii:2.16.840.1.113883.10.20.5.49:2016-08-01	<a href="#">Summary Data Section (HV) (V2)</a>	N/A
<a href="#">Intensive Care Unit (ICU) Summary Report (V3)</a> urn:hl7ii:2.16.840.1.113883.10	<a href="#">Summary Data Section</a>	<a href="#">Report No Events Section</a>

Document Type	Required Sections	Optional Sections
.20.5.40:2018-04-01		
<a href="#">Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report (V6)</a> urn:hl7ii:2.16.840.1.113883.10 .20.5.58:2025-05-01	<a href="#">Risk Factors Section in a LOS/Men Denominator Encounters Section in a LOS/Men Denominator</a>	<a href="#">NHSN Comment Section</a>
<a href="#">Late Onset Sepsis/Meningitis Event (LOS) Report (V7)</a> urn:hl7ii:2.16.840.1.113883.10 .20.5.53:2025-05-01	<a href="#">Infection Details in Late Onset Sepsis Report</a> <a href="#">Risk Factors Section in a LOS/Men Event (V2)</a> <a href="#">NHSN Comment Section</a>	<a href="#">Findings Section in an Infection-Type Report</a>
<a href="#">Neonatal Intensive Care Unit (NICU) Summary Report (V3)</a> urn:hl7ii:2.16.840.1.113883.10 .20.5.41:2018-04-01	<a href="#">Summary Data Section (NICU) (V2)</a>	<a href="#">Report No Events Section</a>
<a href="#">Outpatient Procedure Component Denominator for Same Day Outcome Measures Report</a> urn:hl7ii:2.16.840.1.113883.10 .20.5.55:2019-04-01	<a href="#">Summary Data Section</a>	<a href="#">Report No Events Section</a> <a href="#">NHSN Comment Section</a>
<a href="#">Outpatient Procedure Component Same Day Outcome Measures Event Report (V6)</a> urn:hl7ii:2.16.840.1.113883.10 .20.5.54:2025-05-01	<a href="#">Same Day Outcome Measures Event Details Section</a>	<a href="#">NHSN Comment Section</a>
<a href="#">Outpatient Procedure Surgical Site Infection (SSI) Event Report (V6)</a> urn:hl7ii:2.16.840.1.113883.10 .20.5.57:2025-05-01	<a href="#">Infection Details Section in an OPC SSI Report</a> <a href="#">Findings Section in an OPC SSI Report</a>	<a href="#">NHSN Comment Section</a>
<a href="#">Prevention Process and Outcome Measures (POM) Summary Report (V4)</a> urn:hl7ii:2.16.840.1.113883.10 .20.5.43:2022-04-01	<a href="#">Summary Data Section (POM) (V3)</a>	<a href="#">Report No Events Section</a>
<a href="#">Specialty Care Area (SCA) Summary Report (V3)</a> urn:hl7ii:2.16.840.1.113883.10 .20.5.42:2018-04-01	<a href="#">Summary Data Section</a>	<a href="#">Report No Events Section</a>
<a href="#">Vascular Access Type Report (VAT) Summary Report (V3)</a>	<a href="#">Summary Data Section (VAT)</a>	<a href="#">Report No Events Section</a> <a href="#">NHSN Comment Section</a>

Document Type	Required Sections	Optional Sections
urn:hl7ii:2.16.840.1.113883.10.20.5.45:2018-04-01		
<a href="#">Ventilator Associated Event (VAE) Report (V7)</a> urn:hl7ii:2.16.840.1.113883.10.20.5.51:2025-05-01	<a href="#">Infection Details Section in a VAE Report</a> <a href="#">Findings Section in an Infection-Type Report</a> <a href="#">Risk Factors Section in a VAE Report</a> <a href="#">COVID-19 Section (V2)</a>	<a href="#">NHSN Comment Section</a>

## 1.1 Healthcare Associated Infection Report

[ClinicalDocument: identifier urn:oid:2.16.840.1.113883.10.20.5.4.25 (open)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
Release 1 - US Realm

This template records constraints on all NHSN Healthcare Associated Infection Reports (generic constraints). Further constraints are found in the specialization templates for single-patient and population summary reports, and in the templates for specific report types.

Annotations before some constraints provide additional information for the implementer.

Elements required by CDA that are not further constrained in this guide are not presented as HAI-specific constraints.

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

**Table 2: Healthcare Associated Infection Report Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.25)					
realmCode	1..1	SHALL		<a href="#">86-18431</a>	
@code	1..1	SHALL	CD	<a href="#">86-18432</a>	US
typeId	1..1	SHALL		<a href="#">86-18463</a>	
@root	1..1	SHALL		<a href="#">86-18464</a>	2.16.840.1.113883.1.3
@extension	1..1	SHALL		<a href="#">86-18465</a>	POCD_HD000040
templateId	1..1	SHALL		<a href="#">86-18460</a>	
@root	1..1	SHALL		<a href="#">86-18461</a>	2.16.840.1.113883.10.20.5.4.25
@extension	0..0	SHALL NOT		<a href="#">86-18462</a>	
id	1..1	SHALL		<a href="#">86-18466</a>	
@root	0..1	MAY		<a href="#">86-18467</a>	
@extension	0..1	MAY		<a href="#">86-18468</a>	
code	1..1	SHALL		<a href="#">86-18433</a>	
@code	1..1	SHALL		<a href="#">86-18434</a>	51897-7
@codeSystem	1..1	SHALL		<a href="#">86-27413</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC)
title	1..1	SHALL		<a href="#">86-18435</a>	
effectiveTime	1..1	SHALL		<a href="#">86-18436</a>	
confidentialityCode	1..1	SHALL		<a href="#">86-18437</a>	
@code	1..1	SHALL	CD	<a href="#">86-18438</a>	urn:oid:2.16.840.1.113883.5.25 (HL7Confidentiality) = N
languageCode	1..1	SHALL		<a href="#">86-18439</a>	
@code	1..1	SHALL		<a href="#">86-18440</a>	en-US
setId	1..1	SHALL		<a href="#">86-18441</a>	
versionNumber	1..1	SHALL		<a href="#">86-18442</a>	
recordTarget	1..*	SHALL		<a href="#">86-18472</a>	
author	1..*	SHALL		<a href="#">86-18473</a>	
custodian	1..1	SHALL		<a href="#">86-18443</a>	
assignedCustodian	1..1	SHALL		<a href="#">86-18444</a>	
representedCustodianOrganization	1..1	SHALL		<a href="#">86-18445</a>	
id	1..1	SHALL		<a href="#">86-18446</a>	
@root	1..1	SHALL		<a href="#">86-18447</a>	2.16.840.1.114222.4.3.2.11
legalAuthenticator	0..1	SHOULD		<a href="#">86-18474</a>	
relatedDocument	0..*	MAY		<a href="#">86-18469</a>	
@typeCode	1..1	SHALL		<a href="#">86-18470</a>	urn:oid:2.16.840.1.113883.5.1



XPath	Card.	Verb	Data Type	CONF#	Value
					002 (HL7ActRelationshipType) = RPLC
parentDocument	1..1	SHALL		<a href="#">86-28401</a>	
id	1..*	SHALL		<a href="#">86-28402</a>	
component	1..1	SHALL		<a href="#">86-18448</a>	
structuredBody	1..1	SHALL		<a href="#">86-18449</a>	
component	1..*	SHALL		<a href="#">86-18475</a>	

1. **SHALL** contain exactly one [1..1] **realmCode** (CONF:86-18431).
  - a. This realmCode **SHALL** contain exactly one [1..1] **@code="US"** (CONF:86-18432).
2. **SHALL** contain exactly one [1..1] **typeId** (CONF:86-18463).
  - a. This typeId **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.1.3"** (CONF:86-18464).
  - b. This typeId **SHALL** contain exactly one [1..1] **@extension="POCD\_HD000040"** (CONF:86-18465).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-18460) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.5.4.25"** (CONF:86-18461).
  - b. **SHALL NOT** contain [0..0] **@extension** (CONF:86-18462).

CDA requires a ClinicalDocument/id element representing a unique identifier for the document. The id may be represented by either @root or @root plus @extension, so long as the resulting id is globally unique.

CDA provides id, setId, versionNumber, and relatedDocument elements to support succession management (document versioning).

The id element identifies the CDA document instance (the electronic file). It is independent of the setId and versionNumber elements.

4. **SHALL** contain exactly one [1..1] **id** (CONF:86-18466).
  - a. This id **MAY** contain zero or one [0..1] **@root** (CONF:86-18467).
  - b. This id **MAY** contain zero or one [0..1] **@extension** (CONF:86-18468).
5. **SHALL** contain exactly one [1..1] **code** (CONF:86-18433).
  - a. This code **SHALL** contain exactly one [1..1] **@code="51897-7"** Healthcare Associated Infection Report (CONF:86-18434).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:86-27413).

The preferred title content for each report type is given with the constraints for each report type.

6. **SHALL** contain exactly one [1..1] **title** (CONF:86-18435).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:86-18436).

CDA requires a confidentiality code that indicates the sensitivity of the document. All HAI submissions carry the same value of "normal". Note that this designation does not affect local policy on safeguarding confidentiality of patient-identifiable personal health information.

8. **SHALL** contain exactly one [1..1] **confidentialityCode** (CONF:86-18437).
  - a. This confidentialityCode **SHALL** contain exactly one [1..1] @code="N" Normal (CodeSystem: HL7Confidentiality urn:oid:2.16.840.1.113883.5.25 **STATIC**) (CONF:86-18438).
9. **SHALL** contain exactly one [1..1] **languageCode** (CONF:86-18439).
  - a. This languageCode **SHALL** contain exactly one [1..1] @code="en-US" (CONF:86-18440).
10. **SHALL** contain exactly one [1..1] **setId** (CONF:86-18441).
11. **SHALL** contain exactly one [1..1] **versionNumber** (CONF:86-18442).

CDA requires a recordTarget element that must contain a patientRole element. This is represented differently in single-person and population summary reports. See the templates for generic single-person and population summary reports for details of how to represent the patient or group subject.

12. **SHALL** contain at least one [1..\*] **recordTarget** (CONF:86-18472).

In a single-person report, the author may be software or may be a person in the role of infection control professional (ICP). In a population summary report, the author will be the software forming the message. The effect of the CDA Release 2.0 requirements is:

An author element shall be present. The author element shall contain a time element that represents the time of authoring of the information, and an assignedAuthor element that represents the author of the information. The assignedAuthor element shall contain an id element.

When the report author is vendor software, it can record the Synthetic Data Set (SDS) Validation Id, or, if not participating in SDS, a software installation id. It can also record the vendor software name, the version and release of the software, and the vendor name. For further guidance, see the example at the end of this template.

13. **SHALL** contain at least one [1..\*] **author** (CONF:86-18473).

CDA requires that the document custodian be recorded. The NHSN is the custodian of NHSN HAI Reports.

14. **SHALL** contain exactly one [1..1] **custodian** (CONF:86-18443).
  - a. This custodian **SHALL** contain exactly one [1..1] **assignedCustodian** (CONF:86-18444).
    - i. This assignedCustodian **SHALL** contain exactly one [1..1] **representedCustodianOrganization** (CONF:86-18445).
      1. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **id** (CONF:86-18446).
        - a. This id **SHALL** contain exactly one [1..1] @root="2.16.840.1.114222.4.3.2.11" (CONF:86-18447).

CDA requires that a legalAuthenticator element be present if the document has been legally authenticated. Local policy may delegate the function of legal authentication to a device or system that generates the CDA document. In these cases, the legal authenticator must still be

a person accepting responsibility for the document content, not the device or system. The effect of the CDA Release 2.0 requirements is:

The legalAuthenticator element shall contain a time element that represents the time of authentication of the document, a signatureCode element where the value of @code is S, and an assignedEntity element that represents the authenticator of the document. The assignedEntity element shall contain an id element.

HAI Reports are not signed reports and do not require a legalAuthenticator.

15. **SHOULD** contain zero or one [0..1] **legalAuthenticator** (CONF:86-18474).

16. **MAY** contain zero or more [0..\*] **relatedDocument** (CONF:86-18469).

- a. The relatedDocument, if present, **SHALL** contain exactly one [1..1] **@typeCode="RPLC"** replace (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:86-18470).
- b. The relatedDocument, if present, **SHALL** contain exactly one [1..1] **parentDocument** (CONF:86-28401).
  - i. This parentDocument **SHALL** contain at least one [1..\*] **id** (CONF:86-28402).
    1. The value of id **SHALL** be populated with the ClinicalDocument/id of the document being replaced (CONF:86-28403).
- c. If versionNumber/@value is greater than 1, a relatedDocument element **SHALL** be present (CONF:86-18471).

17. **SHALL** contain exactly one [1..1] **component** (CONF:86-18448).

- a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:86-18449).
  - i. This structuredBody **SHALL** contain at least one [1..\*] **component** (CONF:86-18475).
  - ii. The structuredBody element **SHALL** contain a component element for each section required by the particular report type. Additional sections may be present, but their content will not be processed by NHSN (CONF:86-18450).

**Figure 1: Software Author Example**

```
<author>
  <!-- The time the document was authored -->
  <time value="20080701" />
  <assignedAuthor>
    <!-- root=vendor OID; extension may be the Synthetic Data Set (SDS)
    Validation ID assigned by NHSN AUR subject matter expert (SME);
    if not participating in SDS, vendor may use a software ID -->
    <id root="2.111.111.111.10008" extension="SDS validation ID" />
    <assignedAuthoringDevice>
      <!-- Optional-Vendor software name -->
      <manufacturerModelName>vendor software name</manufacturerModelName>
      <!-- Optional-version and release of the software-->
      <softwareName>vendor software version</softwareName>
    </assignedAuthoringDevice>
    <!-- Optional-Vendor Name -->
    <representedOrganization>
      <name>vendor name</name>
    </representedOrganization>
  </assignedAuthor>
</author>
```

### 1.1.1.1 HAI Population Summary Report Generic Constraints

[ClinicalDocument: identifier urn:oid:2.16.840.1.113883.10.20.5.4.28 (open)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
Release 1 - US Realm

A Population Summary Report records summary data for a group, such as the patients in a particular ward, during a specified period. This report type differs in several ways from the HAI single-person reports.

These report types are used to record many different data sets. The basic structure of the body templates for this report type are:

- A Summary Data Section:
  - A Summary Encounter records the location to which the data pertain.
  - Various Summary Data Observations record data as code-value pairs.

A population-summary report must conform to the Healthcare Associated Infection Report above. In addition:

- The patient identifier (required by CDA) is recorded with a nullFlavor.
- A participant element records that the subject of the report is a group.
- A second participant element records the reporting facility. (The in-facility unit identifier and type to which the data pertain are recorded in the Summary Encounter Section of the document body.)
- In the documentationOf/serviceEvent element,
  - The effectiveTime element records the first and last days of the period reported.
  - The code element records the type of summary data reported. This corresponds to the NHSN form type.

The data set being reported is identified by a code in the CDA header; for example, the cdcNHSN concept "1887-9" identifies the data set "Summary data reporting Antimicrobial Usage". The codes for

these data sets are listed in value set NHSNPopulationSummaryReportTypeCode (2.16.840.1.114222.4.11.3595).

Note that a few data sets are stratified. For example, the NICU (Neonatal Intensive Care Unit) data set is stratified by birthweight; the Antimicrobial Usage data set is stratified by antimicrobial and by route of administration. The stratifying factor is recorded as a CDA element in the Summary Encounter or Summary Data Observation. For example, in an Antimicrobial Use report, the antimicrobial information is represented as a participant. The requirements for each data set are provided in the relevant Summary Data Observation.

Most of the concepts reported are defined for the NHSN protocol and are not expected to see widespread external use: the codes for these concepts come from the NHSN code system.

Key encounter data:

- Facility identifier is required. This represents the reporting facility; the location to which the data pertain, such as a unit, is recorded with the data in the Summary Encounter.
- A code identifying the data set is required.
- The period reported is required.

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

**Table 3: HAI Population Summary Report Generic Constraints Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28)					
templateId	1..1	SHALL		<a href="#">86-22431</a>	
@root	1..1	SHALL		<a href="#">86-22432</a>	2.16.840.1.113883.10.20.5.4.28
recordTarget	1..1	SHALL		<a href="#">86-22433</a>	
patientRole	1..1	SHALL		<a href="#">86-22434</a>	
id	1..1	SHALL		<a href="#">86-22435</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22436</a>	NA
participant	1..1	SHALL		<a href="#">86-22437</a>	
@typeCode	1..1	SHALL		<a href="#">86-22438</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = SBJ
@contextControlCode	1..1	SHALL	CS	<a href="#">86-22439</a>	urn:oid:2.16.840.1.113883.5.1057 (HL7ContextControl) = OP
associatedEntity	1..1	SHALL		<a href="#">86-22440</a>	
@classCode	1..1	SHALL		<a href="#">86-22441</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PRS
code	1..1	SHALL		<a href="#">86-22442</a>	
@code	1..1	SHALL		<a href="#">86-22443</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 389109008
participant	1..1	SHALL		<a href="#">86-22444</a>	
@typeCode	1..1	SHALL		<a href="#">86-22445</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
associatedEntity	1..1	SHALL		<a href="#">86-22447</a>	
@classCode	1..1	SHALL		<a href="#">86-22448</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = SDLOC
id	1..1	SHALL		<a href="#">86-22449</a>	
@root	1..1	SHALL		<a href="#">86-22450</a>	
documentationOf	1..1	SHALL		<a href="#">86-22451</a>	
serviceEvent	1..1	SHALL		<a href="#">86-22452</a>	
@classCode	1..1	SHALL		<a href="#">86-22453</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CASE
code	1..1	SHALL		<a href="#">86-22454</a>	urn:oid:2.16.840.1.114222.4.11.3595 (NHSNPopulationSummaryReportTypeCode)
effectiveTime	1..1	SHALL		<a href="#">86-22456</a>	
low	1..1	SHALL		<a href="#">86-22457</a>	
high	1..1	SHALL		<a href="#">86-22458</a>	

1. Conforms to [Healthcare Associated Infection Report](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.25).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22431) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.4.28" (CONF:86-22432).
3. **SHALL** contain exactly one [1..1] **recordTarget** (CONF:86-22433).
  - a. This recordTarget **SHALL** contain exactly one [1..1] **patientRole** (CONF:86-22434).
    - i. This patientRole **SHALL** contain exactly one [1..1] **id** (CONF:86-22435).
      1. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" not applicable (CONF:86-22436).
4. **SHALL** contain exactly one [1..1] **participant** (CONF:86-22437) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="SBJ" Subject (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:86-22438).
  - b. **SHALL** contain exactly one [1..1] **@contextControlCode**="OP" (CodeSystem: HL7ContextControl urn:oid:2.16.840.1.113883.5.1057 **STATIC**) (CONF:86-22439).
  - c. **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:86-22440).
    - i. This associatedEntity **SHALL** contain exactly one [1..1] **@classCode**="PRS" Person (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:86-22441).
    - ii. This associatedEntity **SHALL** contain exactly one [1..1] **code** (CONF:86-22442).
      1. This code **SHALL** contain exactly one [1..1] **@code**="389109008" Group (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:86-22443).
5. **SHALL** contain exactly one [1..1] **participant** (CONF:86-22444) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:86-22445).
  - b. **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:86-22447).
    - i. This associatedEntity **SHALL** contain exactly one [1..1] **@classCode**="SDLOC" Service delivery location (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:86-22448).
    - ii. This associatedEntity **SHALL** contain exactly one [1..1] **id** (CONF:86-22449).

The value of **@root** must be the NHSN assigned Facility OID.

1. This id **SHALL** contain exactly one [1..1] **@root** (CONF:86-22450).
6. **SHALL** contain exactly one [1..1] **documentationOf** (CONF:86-22451).
  - a. This documentationOf **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:86-22452).
    - i. This serviceEvent **SHALL** contain exactly one [1..1] **@classCode**="CASE" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-22453).

- ii. This serviceEvent **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNPopulationSummaryReportTypeCode](#) urn:oid:2.16.840.1.114222.4.11.3595 **DYNAMIC** (CONF:86-22454).
  - iii. This serviceEvent **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:86-22456).
    - 1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:86-22457).
    - 2. This effectiveTime **SHALL** contain exactly one [1..1] **high** (CONF:86-22458).
7. The author **SHALL** represent the software forming the message (CONF:86-22459).



**Table 4: NHSNPopulationSummaryReportTypeCode**

Value Set: NHSNPopulationSummaryReportTypeCode urn:oid:2.16.840.1.114222.4.11.3595 (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the type of population summary report.),(Data Element Scope: A code describing the population category associated with the data being reported.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/16/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3595/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3595/expansion</a>			
Code	Code System	Code System OID	Print Name
1657-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Summary data reporting outpatient procedure component events at a facility
1879-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Summary data reporting catheter and ventilator use in a ICU/other
1880-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Summary data reporting catheter and ventilator use in a SCA
1881-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Summary data reporting catheter and ventilator use in a NICU
1884-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Summary data reporting active surveillance testing (AST)
1887-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Summary data reporting antimicrobial usage
1891-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Summary data reporting MDRO and CDI LabID Event for LTCF
2316-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Summary data reporting vascular access types for chronic hemodialysis patients
2410-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Summary data reporting antimicrobial resistance patterns at a facility
2543-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Hemovigilance module - monthly reporting denominator
...			

### 1.1.2 Antimicrobial Resistance Option (ARO) Summary Report (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.46:2019-04-01 (closed)]

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Release 3, STU 4 - US Realm

**Table 5: Antimicrobial Resistance Option (ARO) Summary Report (V3) Contexts**

Contained By:	Contains:
	<a href="#">NHSN Comment Section</a> (optional) <a href="#">Report No Events Section</a> (optional) <a href="#">Summary Data Section (ARO) (V3)</a> (required)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

The preferred title for the CDA document is “Denominator for Antimicrobial Resistance Option (ARO)”. The tables below show the data required at the time of publication.

The ARO Report extends the simple pattern for Summary Encounter. Required data elements are recorded as entries within the Summary Encounter, with a specified location based on the protocol.

**Table 6: Antimicrobial Resistance Option (ARO) Summary Report (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.46:2019-04-01)					
templateId	1..1	SHALL		<a href="#">4395-28301</a>	
@root	1..1	SHALL		<a href="#">4395-28302</a>	2.16.840.1.113883.10.20.5.7.3.4
templateId	1..1	SHALL		<a href="#">4395-22969</a>	
@root	1..1	SHALL		<a href="#">4395-2970</a>	2.16.840.1.113883.10.20.5.46
@extension	1..1	SHALL		<a href="#">4395-30544</a>	2019-04-01
title	1..1	SHALL		<a href="#">4395-22971</a>	
documentationOf	1..1	SHALL		<a href="#">4395-22972</a>	
serviceEvent	1..1	SHALL		<a href="#">4395-22973</a>	
code	1..1	SHALL		<a href="#">4395-22974</a>	
@code	1..1	SHALL		<a href="#">4395-22975</a>	2410-9
@codeSystem	1..1	SHALL		<a href="#">4395-22976</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
component	1..1	SHALL		<a href="#">4395-22977</a>	
structuredBody	1..1	SHALL		<a href="#">4395-22978</a>	
component	1..1	SHALL		<a href="#">4395-22979</a>	
section	1..1	SHALL		<a href="#">4395-22980</a>	<a href="#">Summary Data Section (ARO) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.52:2019-04-01)</a>
component	0..1	MAY		<a href="#">4395-30545</a>	
section	1..1	SHALL		<a href="#">4395-30546</a>	<a href="#">Report No Events Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01)</a>
component	0..1	MAY		<a href="#">4395-30547</a>	
section	1..1	SHALL		<a href="#">4395-30548</a>	<a href="#">NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
					<a href="#">0.20.5.5.61:2017-04-01</a>

1. Conforms to [HAI Population Summary Report Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-28301) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.3.4" (CONF:4395-28302).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-22969) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.46" (CONF:4395-2970).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30544).

Preferred document title: "Denominator for Antimicrobial Resistance Option (ARO)".

4. **SHALL** contain exactly one [1..1] **title** (CONF:4395-22971).
5. **SHALL** contain exactly one [1..1] **documentationOf** (CONF:4395-22972).
  - a. This documentationOf **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:4395-22973).
    - i. This serviceEvent **SHALL** contain exactly one [1..1] **code** (CONF:4395-22974).
      1. This code **SHALL** contain exactly one [1..1] **@code**="2410-9" Summary data reporting antimicrobial resistance patterns at a facility (CONF:4395-22975).
      2. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:4395-22976).
6. **SHALL** contain exactly one [1..1] **component** (CONF:4395-22977).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:4395-22978).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:4395-22979) such that it
      1. **SHALL** contain exactly one [1..1] [Summary Data Section \(ARO\) \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.52:2019-04-01) (CONF:4395-22980).
    - ii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:4395-30545) such that it
      1. **SHALL** contain exactly one [1..1] [Report No Events Section](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01) (CONF:4395-30546).
    - iii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:4395-30547) such that it

1. **SHALL** contain exactly one [1..1] [NHSN Comment Section](#)  
(identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01)  
(CONF:4395-30548).

### 1.1.3 Antimicrobial Use (AUP) Summary Report (V2)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.44:2015-04-01 (closed)]

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**Table 7: Antimicrobial Use (AUP) Summary Report (V2) Contexts**

Contained By:	Contains:
	<a href="#">Summary Data Section (AUP) (V2)</a> (required)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

The required title for the CDA document is the “Antimicrobial Use, Pharmacy Option (AUP) Summary Report”.

NHSN reporting requires:

- Patient presence:

- o If the reporting location is a single unit such as a ward, Number of Patient-Present Days, or
- o If the encounter location is facility-wide rather than a single unit, Number of Admissions and Number of Patient-present Days.

- Antimicrobial usage: for each antimicrobial reported,

- o Number of Therapy Days for the antimicrobial (this is not a simple total of the stratified data; consult the NHSN protocol for the calculation)
- o Number of Therapy Days for the antimicrobial stratified by route of actual administration (four observations, one for each route)

**Table 8: Antimicrobial Use (AUP) Summary Report (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.44:2015-04-01)					
templateId	1..1	SHALL		<a href="#">1181-28303</a>	
@root	1..1	SHALL		<a href="#">1181-28304</a>	2.16.840.1.113883.10.20.5.7.2
templateId	1..1	SHALL		<a href="#">1181-22898</a>	
@root	1..1	SHALL		<a href="#">1181-22899</a>	2.16.840.1.113883.10.20.5.44
@extension	1..1	SHALL		<a href="#">1181-30543</a>	2015-04-01
title	1..1	SHALL		<a href="#">1181-22900</a>	Antimicrobial Use, Pharmacy Option (AUP) Summary Report
documentationOf	1..1	SHALL		<a href="#">1181-22901</a>	
serviceEvent	1..1	SHALL		<a href="#">1181-22902</a>	
code	1..1	SHALL		<a href="#">1181-22903</a>	
@code	1..1	SHALL		<a href="#">1181-22904</a>	1887-9
@codeSystem	1..1	SHALL		<a href="#">1181-22905</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
component	1..1	SHALL		<a href="#">1181-22906</a>	
structuredBody	1..1	SHALL		<a href="#">1181-22907</a>	
component	1..1	SHALL		<a href="#">1181-22908</a>	
section	1..1	SHALL		<a href="#">1181-22909</a>	<a href="#">Summary Data Section (AUP) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.51:2015-04-01)</a>

1. Conforms to [HAI Population Summary Report Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1181-28303) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.2" (CONF:1181-28304).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1181-22898) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.44" (CONF:1181-22899).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2015-04-01" (CONF:1181-30543).
4. **SHALL** contain exactly one [1..1] **title**="Antimicrobial Use, Pharmacy Option (AUP) Summary Report" (CONF:1181-22900).
5. **SHALL** contain exactly one [1..1] **documentationOf** (CONF:1181-22901).
  - a. This documentationOf **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:1181-22902).
    - i. This serviceEvent **SHALL** contain exactly one [1..1] **code** (CONF:1181-22903).
      1. This code **SHALL** contain exactly one [1..1] **@code**="1887-9" Summary data reporting antimicrobial usage (CONF:1181-22904).
      2. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1181-22905).
6. **SHALL** contain exactly one [1..1] **component** (CONF:1181-22906).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:1181-22907).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:1181-22908).
      1. This component **SHALL** contain exactly one [1..1] [Summary Data Section \(AUP\) \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.51:2015-04-01) (CONF:1181-22909).

#### 1.1.4 Healthcare Personnel Influenza Vaccination (HP-FLU) Summary Report

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.50:2017-04-01 (closed)]

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Release 3, STU 2 - US Realm

**Table 9: Healthcare Personnel Influenza Vaccination (HP-FLU) Summary Report Contexts**

Contained By:	Contains:
	<a href="#">Summary Data Section (HP-FLU)</a> (required) <a href="#">NHSN Comment Section</a> (optional)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

Preferred document title: “Healthcare Personnel Influenza Vaccination Summary”.

The HP-FLU Summary Report further constrains the location participant to include a location code from the NHSNInfluenzaVaccinationSetting value set.

The HP-FLU Summary Report records the number of healthcare personnel (HCP) in each vaccination category for the influenza season being tracked.

**Table 10: Healthcare Personnel Influenza Vaccination (HP-FLU) Summary Report Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.50:2017-04-01)					
templateId	1..1	SHALL		<a href="#">3311-1</a>	
@root	1..1	SHALL		<a href="#">3311-10</a>	2.16.840.1.113883.10.20.5.7.3.2
templateId	1..1	SHALL		<a href="#">3311-8</a>	
@root	1..1	SHALL		<a href="#">3311-13</a>	2.16.840.1.113883.10.20.5.50
@extension	1..1	SHALL		<a href="#">3311-14</a>	2017-04-01
title	1..1	SHALL		<a href="#">3311-28468</a>	
participant	1..1	SHALL		<a href="#">3311-28424</a>	
@typeCode	1..1	SHALL		<a href="#">3311-28427</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
associatedEntity	1..1	SHALL		<a href="#">3311-28425</a>	
@classCode	1..1	SHALL		<a href="#">3311-28429</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = SDLOC
id	1..1	SHALL		<a href="#">3311-28426</a>	
@root	0..1	MAY		<a href="#">3311-28430</a>	
code	1..1	SHALL		<a href="#">3311-28431</a>	urn:oid:2.16.840.1.113883.10.20.5.9.7 (NHSNInfluenzaVaccinationSetting)
@nullFlavor	0..1	MAY		<a href="#">3311-28467</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA
documentationOf	1..1	SHALL		<a href="#">3311-2</a>	
serviceEvent	1..1	SHALL		<a href="#">3311-3</a>	
code	1..1	SHALL		<a href="#">3311-4</a>	
@code	1..1	SHALL		<a href="#">3311-11</a>	86558-4
@codeSystem	1..1	SHALL		<a href="#">3311-12</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
effectiveTime	1..1	SHALL		<a href="#">3311-16</a>	
low	1..1	SHALL		<a href="#">3311-28416</a>	
@value	1..1	SHALL		<a href="#">3311-28418</a>	
high	1..1	SHALL		<a href="#">3311-28417</a>	



XPath	Card.	Verb	Data Type	CONF#	Value
@value	1..1	SHALL		<a href="#">3311-28419</a>	
component	1..1	SHALL		<a href="#">3311-5</a>	
structuredBody	1..1	SHALL		<a href="#">3311-6</a>	
component	1..1	SHALL		<a href="#">3311-7</a>	
section	1..1	SHALL		<a href="#">3311-9</a>	<a href="#">Summary Data Section (HP-FLU) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.58:2017-04-01)</a>
component	0..1	MAY		<a href="#">3311-28422</a>	
section	1..1	SHALL		<a href="#">3311-28423</a>	<a href="#">NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01)</a>

1. Conforms to [HAI Population Summary Report Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:3311-1) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.3.2" (CONF:3311-10).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3311-8) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.50" (CONF:3311-13).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2017-04-01" (CONF:3311-14).

Preferred document title: "Healthcare Personnel Influenza Vaccination Summary"

4. **SHALL** contain exactly one [1..1] **title** (CONF:3311-28468).
5. **SHALL** contain exactly one [1..1] **participant** (CONF:3311-28424) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3311-28427).
  - b. **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:3311-28425).
    - i. This associatedEntity **SHALL** contain exactly one [1..1] **@classCode**="SDLOC" Service delivery location (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3311-28429).
    - ii. This associatedEntity **SHALL** contain exactly one [1..1] **id** (CONF:3311-28426).  
Note: Facility Id
      1. This id **MAY** contain zero or one [0..1] **@root** (CONF:3311-28430).
    - iii. This associatedEntity **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNInfluenzaVaccinationSetting](#)

urn:oid:2.16.840.1.113883.10.20.5.9.7 **DYNAMIC** (CONF:3311-28431).  
Note: Location

1. This code **MAY** contain zero or one [0..1] **@nullFlavor="NA"**  
(CodeSystem: HL7NullFlavor  
urn:oid:2.16.840.1.113883.5.1008) (CONF:3311-28467).
6. **SHALL** contain exactly one [1..1] **documentationOf** (CONF:3311-2).
  - a. This documentationOf **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:3311-3).
    - i. This serviceEvent **SHALL** contain exactly one [1..1] **code** (CONF:3311-4).
      1. This code **SHALL** contain exactly one [1..1] **@code="86558-4"**  
Healthcare Personnel Influenza Vaccination Summary (CONF:3311-11).
      2. This code **SHALL** contain exactly one [1..1]  
**@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC  
urn:oid:2.16.840.1.113883.6.1) (CONF:3311-12).
    - ii. This serviceEvent **SHALL** contain exactly one [1..1] **effectiveTime**  
(CONF:3311-16).

Note: Influenza season (e.g. 2016-2017). Both effectiveTime/low/@value and effectiveTime/high/@value must contain a 4-digit year, fewer or more digits will fail Schematron validation.

      1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:3311-28416).
        - a. This low **SHALL** contain exactly one [1..1] **@value** (CONF:3311-28418).
          - i. DocumentationOf/serviceEvent/effectiveTime/low/@value **SHALL** contain a 4-digit year (CONF:3311-28420).
      2. This effectiveTime **SHALL** contain exactly one [1..1] **high** (CONF:3311-28417).
        - a. This high **SHALL** contain exactly one [1..1] **@value**  
(CONF:3311-28419).
          - i. DocumentationOf/serviceEvent/effectiveTime/high/@value **SHALL** contain a 4-digit year (CONF:3311-28421).
  7. **SHALL** contain exactly one [1..1] **component** (CONF:3311-5).
    - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:3311-6).
      - i. This structuredBody **SHALL** contain exactly one [1..1] **component**  
(CONF:3311-7) such that it
        1. **SHALL** contain exactly one [1..1] Summary Data Section (HP-FLU)  
(identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.5.5.58:2017-04-01)  
(CONF:3311-9).
      - ii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:3311-28422) such that it
        1. **SHALL** contain exactly one [1..1] NHSN Comment Section  
(identifier:

urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01)  
(CONF:3311-28423).

**Table 11: NHSNInfluenzaVaccinationSetting**

Value Set: NHSNInfluenzaVaccinationSetting urn:oid:2.16.840.1.113883.10.20.5.9.7 This value set contains codes describing the location where the influenza vaccination was given. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.7/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.7/expansion</a>			
Code	Code System	Code System OID	Print Name
1263-3	HSLOC	urn:oid:2.16.840.1.113883.6.25 9	Non-CMS Hospital Unit(s)
1265-8	HSLOC	urn:oid:2.16.840.1.113883.6.25 9	Inpatient Psychiatric Facility Unit(s)
1264-1	HSLOC	urn:oid:2.16.840.1.113883.6.25 9	Inpatient Rehabilitation Facility Unit(s)

### 1.1.5 Hemovigilance (HV) Summary Report (V2)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.49:2016-08-01 (closed)]

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**Table 12: Hemovigilance (HV) Summary Report (V2) Contexts**

Contained By:	Contains:
	<a href="#">Summary Data Section (HV) (V2)</a> (required)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

The required title for the CDA document is the “Hemovigilance Module - Monthly Reporting Denominator”.

The HV Summary Report records monthly summary data for a facility.

**Table 13: Hemovigilance (HV) Summary Report (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.49:2016-08-01)					
templateId	1..1	SHALL		<a href="#">3247-30738</a>	
@root	1..1	SHALL		<a href="#">3247-30608</a>	2.16.840.1.113883.10.20.5.7.3.1.1
templateId	1..1	SHALL		<a href="#">3247-30606</a>	
@root	1..1	SHALL		<a href="#">3247-30611</a>	2.16.840.1.113883.10.20.5.49
@extension	1..1	SHALL		<a href="#">3247-30612</a>	2016-08-01
title	1..1	SHALL		<a href="#">3247-30613</a>	
documentationOf	1..1	SHALL		<a href="#">3247-30600</a>	
serviceEvent	1..1	SHALL		<a href="#">3247-30739</a>	
code	1..1	SHALL		<a href="#">3247-30740</a>	
@code	1..1	SHALL		<a href="#">3247-30609</a>	2543-7
@codeSystem	1..1	SHALL		<a href="#">3247-30610</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
component	1..1	SHALL		<a href="#">3247-30741</a>	
structuredBody	1..1	SHALL		<a href="#">3247-30604</a>	
component	1..1	SHALL		<a href="#">3247-30605</a>	
section	1..1	SHALL		<a href="#">3247-30607</a>	<a href="#">Summary Data Section (HV) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.57:2016-08-01)</a>

1. Conforms to [HAI Population Summary Report Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:3247-30738) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.3.1.1" (CONF:3247-30608).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3247-30606) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.49" (CONF:3247-30611).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2016-08-01" (CONF:3247-30612).
- Preferred document title: "Hemovigilance Module - Monthly Reporting Denominator"
- 4. **SHALL** contain exactly one [1..1] **title** (CONF:3247-30613).
  - 5. **SHALL** contain exactly one [1..1] **documentationOf** (CONF:3247-30600).
    - a. This documentationOf **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:3247-30739).
      - i. This serviceEvent **SHALL** contain exactly one [1..1] **code** (CONF:3247-30740).
        - 1. This code **SHALL** contain exactly one [1..1] **@code**="2543-7" Hemovigilance Module - Monthly Reporting Denominator (CONF:3247-30609).
        - 2. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3247-30610).
  - 6. **SHALL** contain exactly one [1..1] **component** (CONF:3247-30741).
    - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:3247-30604).
      - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:3247-30605).
        - 1. This component **SHALL** contain exactly one [1..1] [Summary Data Section \(HV\) \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.57:2016-08-01) (CONF:3247-30607).

### 1.1.6 Intensive Care Unit (ICU) Summary Report (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.40:2018-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 3 - US Realm

**Table 14: Intensive Care Unit (ICU) Summary Report (V3) Contexts**

Contained By:	Contains:
	<a href="#">Summary Data Section</a> (required) <a href="#">Report No Events Section</a> (optional)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

Preferred document title: “Denominator for Intensive Care Unit (ICU)/Other Locations (not NICU or SCA) Report”.

**Table 15: Intensive Care Unit (ICU) Summary Report (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.40:2018-04-01)					
templateId	1..1	SHALL		<a href="#">3357-28321</a>	
@root	1..1	SHALL		<a href="#">3357-28322</a>	2.16.840.1.113883.10.20.5.7.3.3
templateId	1..1	SHALL		<a href="#">3357-22793</a>	
@root	1..1	SHALL		<a href="#">3357-22794</a>	2.16.840.1.113883.10.20.5.40
@extension	1..1	SHALL		<a href="#">3357-30596</a>	2018-04-01
title	1..1	SHALL		<a href="#">3357-30866</a>	
documentationOf	1..1	SHALL		<a href="#">3357-22800</a>	
serviceEvent	1..1	SHALL		<a href="#">3357-22801</a>	
code	1..1	SHALL		<a href="#">3357-22802</a>	
@code	1..1	SHALL		<a href="#">3357-22803</a>	1879-6
@codeSystem	1..1	SHALL		<a href="#">3357-22804</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
component	1..1	SHALL		<a href="#">3357-22795</a>	
structuredBody	1..1	SHALL		<a href="#">3357-22796</a>	
component	1..1	SHALL		<a href="#">3357-22797</a>	
section	1..1	SHALL		<a href="#">3357-22798</a>	<a href="#">Summary Data Section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.47)</a>
component	0..1	MAY		<a href="#">3357-30854</a>	
section	1..1	SHALL		<a href="#">3357-30855</a>	<a href="#">Report No Events Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01)</a>

1. Conforms to [HAI Population Summary Report Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-28321) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.3.3" (CONF:3357-28322).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-22793) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.40" (CONF:3357-22794).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2018-04-01" (CONF:3357-30596).

Preferred document title: "Denominator for Intensive Care Unit (ICU)/Other Locations (not NICU or SCA) Report".

4. **SHALL** contain exactly one [1..1] **title** (CONF:3357-30866).
5. **SHALL** contain exactly one [1..1] **documentationOf** (CONF:3357-22800).
  - a. This documentationOf **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:3357-22801).
    - i. This serviceEvent **SHALL** contain exactly one [1..1] **code** (CONF:3357-22802).
      1. This code **SHALL** contain exactly one [1..1] **@code**="1879-6" Summary data reporting catheter and ventilator use in an ICU (CONF:3357-22803).
      2. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3357-22804).
6. **SHALL** contain exactly one [1..1] **component** (CONF:3357-22795).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:3357-22796).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:3357-22797) such that it
      1. **SHALL** contain exactly one [1..1] Summary Data Section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.47) (CONF:3357-22798).
    - ii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:3357-30854) such that it
      1. **SHALL** contain exactly one [1..1] Report No Events Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01) (CONF:3357-30855).

### 1.1.7 Neonatal Intensive Care Unit (NICU) Summary Report (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.41:2018-04-01 (closed)]

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**Table 16: Neonatal Intensive Care Unit (NICU) Summary Report (V3) Contexts**

Contained By:	Contains:
	<a href="#">Summary Data Section (NICU) (V2)</a> (required) <a href="#">Report No Events Section</a> (optional)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

Preferred document title: “Denominator for Neonatal Intensive Care Unit (NICU)”.



**Table 17: Neonatal Intensive Care Unit (NICU) Summary Report (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.41:2018-04-01)					
templateId	1..1	SHALL		<a href="#">3357-28323</a>	
@root	1..1	SHALL		<a href="#">3357-28324</a>	2.16.840.1.113883.10.20.5.7.3.3
templateId	1..1	SHALL		<a href="#">3357-22805</a>	
@root	1..1	SHALL		<a href="#">3357-22806</a>	2.16.840.1.113883.10.20.5.41
@extension	1..1	SHALL		<a href="#">3357-30595</a>	2018-04-01
title	1..1	SHALL		<a href="#">3357-30867</a>	
documentationOf	1..1	SHALL		<a href="#">3357-22808</a>	
serviceEvent	1..1	SHALL		<a href="#">3357-22809</a>	
code	1..1	SHALL		<a href="#">3357-22810</a>	
@code	1..1	SHALL		<a href="#">3357-22811</a>	1881-2
@codeSystem	1..1	SHALL		<a href="#">3357-22812</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
component	1..1	SHALL		<a href="#">3357-22813</a>	
structuredBody	1..1	SHALL		<a href="#">3357-22814</a>	
component	1..1	SHALL		<a href="#">3357-22815</a>	
section	1..1	SHALL		<a href="#">3357-22816</a>	<a href="#">Summary Data Section (NICU) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.48:2018-04-01)</a>
component	0..1	MAY		<a href="#">3357-30612</a>	
section	1..1	SHALL		<a href="#">3357-30613</a>	<a href="#">Report No Events Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01)</a>

1. Conforms to [HAI Population Summary Report Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-28323) such that it
    - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.3.3" (CONF:3357-28324).
  3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-22805) such that it
    - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.41" (CONF:3357-22806).
    - b. **SHALL** contain exactly one [1..1] **@extension**="2018-04-01" (CONF:3357-30595).
- Preferred document title: "Denominator for Neonatal Intensive Care Unit (NICU)".
4. **SHALL** contain exactly one [1..1] **title** (CONF:3357-30867).
  5. **SHALL** contain exactly one [1..1] **documentationOf** (CONF:3357-22808).
    - a. This **documentationOf** **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:3357-22809).
      - i. This **serviceEvent** **SHALL** contain exactly one [1..1] **code** (CONF:3357-22810).
        1. This **code** **SHALL** contain exactly one [1..1] **@code**="1881-2" Summary data reporting catheter and ventilator use in a NICU (CONF:3357-22811).
        2. This **code** **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3357-22812).
  6. **SHALL** contain exactly one [1..1] **component** (CONF:3357-22813).
    - a. This **component** **SHALL** contain exactly one [1..1] **structuredBody** (CONF:3357-22814).
      - i. This **structuredBody** **SHALL** contain exactly one [1..1] **component** (CONF:3357-22815) such that it
        1. **SHALL** contain exactly one [1..1] Summary Data Section (NICU) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.48:2018-04-01) (CONF:3357-22816).
      - ii. This **structuredBody** **MAY** contain zero or one [0..1] **component** (CONF:3357-30612) such that it
        1. **SHALL** contain exactly one [1..1] Report No Events Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01) (CONF:3357-30613).

### 1.1.8 Outpatient Procedure Component Denominator for Same Day Outcome Measures Report

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.55:2019-04-01 (closed)]

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Release 3, STU 4 - US Realm

**Table 18: Outpatient Procedure Component Denominator for Same Day Outcome Measures Report Contexts**

Contained By:	Contains:
	<a href="#">Summary Data Section</a> (required) <a href="#">NHSN Comment Section</a> (optional) <a href="#">Report No Events Section</a> (optional)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

Preferred document title: “Outpatient Procedure Component Denominator for Same Day Outcome Measures”.

The OPC Summary Report uses the simple pattern for Summary Encounter. Required data elements are recorded as entries within the Summary Encounter.

**Table 19: Outpatient Procedure Component Denominator for Same Day Outcome Measures Report Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.55:2019-04-01)					
templateId	1..1	SHALL		<a href="#">4395-55</a>	
@root	1..1	SHALL		<a href="#">4395-64</a>	2.16.840.1.113883.10.20.5.7.3.4
templateId	1..1	SHALL		<a href="#">4395-63</a>	
@root	1..1	SHALL		<a href="#">4395-68</a>	2.16.840.1.113883.10.20.5.55
@extension	1..1	SHALL		<a href="#">4395-69</a>	2019-04-01
title	1..1	SHALL		<a href="#">4395-67</a>	
documentationOf	1..1	SHALL		<a href="#">4395-30898</a>	
serviceEvent	1..1	SHALL		<a href="#">4395-30899</a>	
code	1..1	SHALL		<a href="#">4395-30900</a>	
@code	1..1	SHALL		<a href="#">4395-30901</a>	1657-6
@codeSystem	1..1	SHALL		<a href="#">4395-30902</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
component	1..1	SHALL		<a href="#">4395-59</a>	
structuredBody	1..1	SHALL		<a href="#">4395-60</a>	
component	1..1	SHALL		<a href="#">4395-61</a>	
section	1..1	SHALL		<a href="#">4395-62</a>	<a href="#">Summary Data Section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.47)</a>
component	0..1	MAY		<a href="#">4395-30936</a>	
section	1..1	SHALL		<a href="#">4395-30937</a>	<a href="#">Report No Events Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01)</a>
component	0..1	MAY		<a href="#">4395-30938</a>	
section	1..1	SHALL		<a href="#">4395-30939</a>	<a href="#">NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01)</a>

1. Conforms to [HAI Population Summary Report Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-55) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.3.4" (CONF:4395-64).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-63) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.55" (CONF:4395-68).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-69).

Preferred document title: "Outpatient Procedure Component Denominator for Same Day Outcome Measures".

4. **SHALL** contain exactly one [1..1] **title** (CONF:4395-67).
5. **SHALL** contain exactly one [1..1] **documentationOf** (CONF:4395-30898).
  - a. This documentationOf **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:4395-30899).
    - i. This serviceEvent **SHALL** contain exactly one [1..1] **code** (CONF:4395-30900).
      1. This code **SHALL** contain exactly one [1..1] **@code**="1657-6" Summary data reporting outpatient procedure component events at a facility (CONF:4395-30901).
      2. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:4395-30902).
6. **SHALL** contain exactly one [1..1] **component** (CONF:4395-59).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:4395-60).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:4395-61) such that it
      1. **SHALL** contain exactly one [1..1] Summary Data Section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.47) (CONF:4395-62).
    - ii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:4395-30936) such that it
      1. **SHALL** contain exactly one [1..1] Report No Events Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01) (CONF:4395-30937).
    - iii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:4395-30938) such that it
      1. **SHALL** contain exactly one [1..1] NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01) (CONF:4395-30939).

### 1.1.9 Prevention Process and Outcome Measures (POM) Summary Report (V4)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.43:2022-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection Reports Release 4, STU 2 - US Realm

**Table 20: Prevention Process and Outcome Measures (POM) Summary Report (V4) Contexts**

Contained By:	Contains:
	<a href="#">Report No Events Section</a> (optional) <a href="#">Summary Data Section (POM) (V3)</a> (required)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

Preferred document title: “Prevention Process and Outcome Measures (POM) Monthly Monitoring”.

The POM Report records summary data for a location during a specified period. It can be submitted at the facility-wide level or at the unit level.

**Table 21: Prevention Process and Outcome Measures (POM) Summary Report (V4) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.43:2022-04-01)					
templateId	1..1	SHALL		<a href="#">4523-30549</a>	
@root	1..1	SHALL		<a href="#">4523-30550</a>	2.16.840.1.113883.10.20.5.7.4.2
templateId	1..1	SHALL		<a href="#">4523-22886</a>	
@root	1..1	SHALL		<a href="#">4523-22887</a>	2.16.840.1.113883.10.20.5.43
@extension	1..1	SHALL		<a href="#">4523-30476</a>	2022-04-01
title	1..1	SHALL		<a href="#">4523-31026</a>	
documentationOf	1..1	SHALL		<a href="#">4523-22889</a>	
serviceEvent	1..1	SHALL		<a href="#">4523-22890</a>	
code	1..1	SHALL		<a href="#">4523-22891</a>	
@code	1..1	SHALL		<a href="#">4523-22892</a>	1884-6
@codeSystem	1..1	SHALL		<a href="#">4523-22893</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
component	1..1	SHALL		<a href="#">4523-22894</a>	
structuredBody	1..1	SHALL		<a href="#">4523-22895</a>	
component	1..1	SHALL		<a href="#">4523-22896</a>	
section	1..1	SHALL		<a href="#">4523-30433</a>	<a href="#">Summary Data Section (POM) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.49:2022-04-01)</a>
component	0..1	MAY		<a href="#">4523-30858</a>	
section	1..1	SHALL		<a href="#">4523-30859</a>	<a href="#">Report No Events Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01)</a>

1. Conforms to [HAI Population Summary Report Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4523-30549) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.4.2" (CONF:4523-30550).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:4523-22886) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.43" (CONF:4523-22887).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2022-04-01" (CONF:4523-30476).

Preferred document title: "Prevention Process and Outcome Measures (POM) Monthly Monitoring".

4. **SHALL** contain exactly one [1..1] **title** (CONF:4523-31026).
5. **SHALL** contain exactly one [1..1] **documentationOf** (CONF:4523-22889).
  - a. This **documentationOf** **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:4523-22890).
    - i. This **serviceEvent** **SHALL** contain exactly one [1..1] **code** (CONF:4523-22891).
      1. This **code** **SHALL** contain exactly one [1..1] **@code**="1884-6" Summary data reporting Active Surveillance Testing (CONF:4523-22892).
      2. This **code** **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:4523-22893).
6. **SHALL** contain exactly one [1..1] **component** (CONF:4523-22894).
  - a. This **component** **SHALL** contain exactly one [1..1] **structuredBody** (CONF:4523-22895).
    - i. This **structuredBody** **SHALL** contain exactly one [1..1] **component** (CONF:4523-22896) such that it
      1. **SHALL** contain exactly one [1..1] Summary Data Section (POM) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.49:2022-04-01) (CONF:4523-30433).
    - ii. This **structuredBody** **MAY** contain zero or one [0..1] **component** (CONF:4523-30858) such that it
      1. **SHALL** contain exactly one [1..1] Report No Events Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01) (CONF:4523-30859).



### 1.1.10 Specialty Care Area (SCA) Summary Report (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.42:2018-04-01 (closed)]

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Release 3, STU 3 - US Realm

**Table 22: Specialty Care Area (SCA) Summary Report (V3) Contexts**

Contained By:	Contains:
	<a href="#">Summary Data Section</a> (required) <a href="#">Report No Events Section</a> (optional)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

Preferred document title: “Denominator for Specialty Care Area (SCA)”.

This summary report uses the basic pattern for Summary Encounter and Summary Data Observation. Consult the NHSN protocol for which data to report.

**Table 23: Specialty Care Area (SCA) Summary Report (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.42:2018-04-01)					
templateId	1..1	SHALL		<a href="#">3357-28327</a>	
@root	1..1	SHALL		<a href="#">3357-28328</a>	2.16.840.1.113883.10.20.5.7.3.3
templateId	1..1	SHALL		<a href="#">3357-22843</a>	
@root	1..1	SHALL		<a href="#">3357-22844</a>	2.16.840.1.113883.10.20.5.42
@extension	1..1	SHALL		<a href="#">3357-30594</a>	2018-04-01
title	1..1	SHALL		<a href="#">3357-30869</a>	
documentationOf	1..1	SHALL		<a href="#">3357-22846</a>	
serviceEvent	1..1	SHALL		<a href="#">3357-22847</a>	
code	1..1	SHALL		<a href="#">3357-22848</a>	
@code	1..1	SHALL		<a href="#">3357-22849</a>	1880-4
@codeSystem	1..1	SHALL		<a href="#">3357-22850</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
component	1..1	SHALL		<a href="#">3357-22851</a>	
structuredBody	1..1	SHALL		<a href="#">3357-22852</a>	
component	1..1	SHALL		<a href="#">3357-22853</a>	
section	1..1	SHALL		<a href="#">3357-22854</a>	<a href="#">Summary Data Section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.47)</a>
component	0..1	MAY		<a href="#">3357-30856</a>	
section	1..1	SHALL		<a href="#">3357-30857</a>	<a href="#">Report No Events Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01)</a>

1. Conforms to [HAI Population Summary Report Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-28327) such that it
    - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.3.3" (CONF:3357-28328).
  3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-22843) such that it
    - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.42" (CONF:3357-22844).
    - b. **SHALL** contain exactly one [1..1] **@extension**="2018-04-01" (CONF:3357-30594).
- Preferred document title: "Denominator for Specialty Care Area (SCA)".
4. **SHALL** contain exactly one [1..1] **title** (CONF:3357-30869).
  5. **SHALL** contain exactly one [1..1] **documentationOf** (CONF:3357-22846).
    - a. This documentationOf **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:3357-22847).
      - i. This serviceEvent **SHALL** contain exactly one [1..1] **code** (CONF:3357-22848).
        1. This code **SHALL** contain exactly one [1..1] **@code**="1880-4" Summary data reporting catheter and ventilator use in a SCA (CONF:3357-22849).
        2. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3357-22850).
  6. **SHALL** contain exactly one [1..1] **component** (CONF:3357-22851).
    - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:3357-22852).
      - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:3357-22853) such that it
        1. **SHALL** contain exactly one [1..1] Summary Data Section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.47) (CONF:3357-22854).
      - ii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:3357-30856) such that it
        1. **SHALL** contain exactly one [1..1] Report No Events Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01) (CONF:3357-30857).

#### 1.1.11 Vascular Access Type Report (VAT) Summary Report (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.45:2018-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 3 - US Realm

**Table 24: Vascular Access Type Report (VAT) Summary Report (V3) Contexts**

Contained By:	Contains:
	<u>Summary Data Section (VAT)</u> (required)

Contained By:	Contains:
	<a href="#">NHSN Comment Section</a> (optional) <a href="#">Report No Events Section</a> (optional)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

Preferred document title: “Maintenance Hemodialysis Patients Stratified by Vascular Access Type Report”.

**Table 25: Vascular Access Type Report (VAT) Summary Report (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.45:2018-04-01)					
templateId	1..1	SHALL		<a href="#">3357-28329</a>	
@root	1..1	SHALL		<a href="#">3357-28330</a>	2.16.840.1.113883.10.20.5.7.3.3
templateId	1..1	SHALL		<a href="#">3357-22921</a>	
@root	1..1	SHALL		<a href="#">3357-22922</a>	2.16.840.1.113883.10.20.5.45
@extension	1..1	SHALL		<a href="#">3357-30860</a>	2018-04-01
title	1..1	SHALL		<a href="#">3357-30870</a>	
documentationOf	1..1	SHALL		<a href="#">3357-22924</a>	
serviceEvent	1..1	SHALL		<a href="#">3357-22925</a>	
code	1..1	SHALL		<a href="#">3357-22926</a>	
@code	1..1	SHALL		<a href="#">3357-22927</a>	2316-8
@codeSystem	1..1	SHALL		<a href="#">3357-22928</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
component	1..1	SHALL		<a href="#">3357-22929</a>	
structuredBody	1..1	SHALL		<a href="#">3357-22930</a>	
component	1..1	SHALL		<a href="#">3357-22931</a>	
section	1..1	SHALL		<a href="#">3357-22932</a>	<a href="#">Summary Data Section (VAT) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.50)</a>
component	0..1	MAY		<a href="#">3357-30861</a>	
section	1..1	SHALL		<a href="#">3357-30862</a>	<a href="#">Report No Events Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01)</a>
component	0..1	MAY		<a href="#">3357-30911</a>	
section	1..1	SHALL		<a href="#">3357-30912</a>	<a href="#">NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
					<a href="#">0.20.5.5.61:2017-04-01</a>

1. Conforms to [HAI Population Summary Report Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-28329) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.3.3" (CONF:3357-28330).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-22921) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.45" (CONF:3357-22922).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2018-04-01" (CONF:3357-30860).

Preferred document title: "Maintenance Hemodialysis Patients Stratified by Vascular Access Type Report".

4. **SHALL** contain exactly one [1..1] **title** (CONF:3357-30870).
5. **SHALL** contain exactly one [1..1] **documentationOf** (CONF:3357-22924).
  - a. This documentationOf **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:3357-22925).
    - i. This serviceEvent **SHALL** contain exactly one [1..1] **code** (CONF:3357-22926).
      1. This code **SHALL** contain exactly one [1..1] **@code**="2316-8" Summary dialysis data reporting vascular access types in maintenance (chronic) hemodialysis patients (CONF:3357-22927).
      2. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3357-22928).
6. **SHALL** contain exactly one [1..1] **component** (CONF:3357-22929).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:3357-22930).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:3357-22931) such that it
      1. **SHALL** contain exactly one [1..1] [Summary Data Section \(VAT\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.50) (CONF:3357-22932).
    - ii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:3357-30861) such that it
      1. **SHALL** contain exactly one [1..1] [Report No Events Section](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01) (CONF:3357-30862).
    - iii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:3357-30911) such that it

1. **SHALL** contain exactly one [1..1] [NHSN Comment Section](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01)  
(CONF:3357-30912).

### 1.1.12 HAI Single-Person Report Generic Constraints (V6)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01 (open)]

Draft as part of NHSN Healthcare Associated Infection Reports Release 4, STU 4 - US Realm

**Table 26: HAI Single-Person Report Generic Constraints (V6) Contexts**

Contained By:	Contains:
	<a href="#">NHSN Social History Section (V4)</a> (required)

This template records the constraints for HAI single-person reports. It is used by all numerator reports covered by this guide. It is also used by the Procedure Denominator Report.

A single-person report must conform to the Healthcare Associated Infection Report template. In addition, key data about the patient are recorded in the recordTarget element.

- A patient identifier representing the facility-assigned patient ID is required. Other identifiers for the person can also be present, such as a United States Social Security Number (id/@root = 2.16.840.1.113883.4.1), a Medicare beneficiary identifier (id/@root = 2.16.840.1.113883.4.338), or secondary patient IDs (id/@root = the appropriate facility OID for patient IDs). If there isn't an available "other" identifier, then there should not be an id present for that type of identifier.
- The patient name is optional; consult the NHSN reporting protocol and requirements.
- Patient race is required and multiple races can be recorded, to represent an unknown race, set nullFlavor="UNK", to represent "declined to respond", set nullFlavor="ASKU".
- Patient ethnicity is required and multiple ethnicities can be recorded, to represent an unknown ethnicity, set nullFlavor="UNK", to represent "declined to respond", set nullFlavor="ASKU".
- Patient language is required and multiple languages can be recorded, to represent languages not represented in the bound value set, set nullFlavor="OTH", to represent "choose not to disclose language", set nullFlavor="ASKU", to represent "unknown language", set nullFlavor="UNK".

The report-specific requirements specify the encounter data to record for each single-person report type. These data always include an identifier for the reporting facility, and usually include the encounter type (inpatient or outpatient), the admission date or encounter date, and the facility unit identifier and type.

The NHSN Social History section contains Sex (required), Interpreter Needed Observation (required), and Interpreter Used by Patient this Encounter Observation (required).

Note: The section on "Template Ids in this Guide" includes a containment table showing all the entries within each report type.

**Table 27: HAI Single-Person Report Generic Constraints (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01)					
templateId	1..1	SHALL		<a href="#">5566-22415</a>	
@root	1..1	SHALL		<a href="#">5566-22416</a>	2.16.840.1.113883.10.20.5.4.27
@extension	1..1	SHALL		<a href="#">5566-30795</a>	2025-05-01
recordTarget	1..1	SHALL		<a href="#">5566-22417</a>	
patientRole	1..1	SHALL		<a href="#">5566-22418</a>	
id	1..*	SHALL		<a href="#">5566-22419</a>	
@root	1..1	SHALL		<a href="#">5566-22420</a>	
@extension	1..1	SHALL		<a href="#">5566-22421</a>	
patient	1..1	SHALL		<a href="#">5566-22422</a>	
name	0..1	MAY		<a href="#">5566-22423</a>	
administrativeGenderCode	0..0	SHALL NOT		<a href="#">5566-22424</a>	
birthTime	1..1	SHALL		<a href="#">5566-22426</a>	
@value	1..1	SHALL		<a href="#">5566-22427</a>	
raceCode	1..1	SHALL		<a href="#">5566-22428</a>	urn:oid:2.16.840.1.113883.3.2074.1.1.3 (Race Category Excluding Nulls)
@nullFlavor	0..1	MAY		<a href="#">5566-30797</a>	urn:oid:2.16.840.1.113762.1.4.1021.102 (Unknown or refused to answer)
sdtc:raceCode	0..*	MAY		<a href="#">5566-30796</a>	urn:oid:2.16.840.1.113883.1.11.14914 (Race Value Set)
ethnicGroupCode	1..1	SHALL		<a href="#">5566-22429</a>	urn:oid:2.16.840.1.114222.4.11.837 (Ethnicity)
@nullFlavor	0..1	MAY		<a href="#">5566-30798</a>	urn:oid:2.16.840.1.113762.1.4.1021.102 (Unknown or refused to answer)
sdtc:ethnicGroupCode	0..*	MAY		<a href="#">5566-30799</a>	urn:oid:2.16.840.1.114222.4.11.877 (Detailed Ethnicity)
languageCommunication	1..*	SHALL		<a href="#">5566-30800</a>	



XPath	Card.	Verb	Data Type	CONF#	Value
languageCode	1..1	SHALL		<a href="#">5566-30801</a>	urn:oid:2.16.840.1.114222.24.7.1 (NHSN Abridged Primary Language List)
@nullFlavor	0..1	MAY		<a href="#">5566-31119</a>	urn:oid:2.16.840.1.113762.1.4.1021.103 (Other or unknown or refused to answer)
preferenceInd	0..1	SHOULD		<a href="#">5566-30804</a>	
componentOf	1..1	SHALL		<a href="#">5566-31032</a>	
encompassingEncounter	1..1	SHALL		<a href="#">5566-31033</a>	
effectiveTime	1..1	SHALL		<a href="#">5566-31036</a>	
@nullFlavor	0..1	MAY		<a href="#">5566-31080</a>	NA
component	1..1	SHALL		<a href="#">5566-22431</a>	
structuredBody	1..1	SHALL		<a href="#">5566-22432</a>	
component	1..1	SHALL		<a href="#">5566-22433</a>	
section	1..1	SHALL		<a href="#">5566-22434</a>	<a href="#">NHSN Social History Section (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.81:2025-05-01)</a>

1. Conforms to [Healthcare Associated Infection Report](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.25).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-22415) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.4.27" (CONF:5566-22416).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-30795).
3. **SHALL** contain exactly one [1..1] **recordTarget** (CONF:5566-22417).
  - a. This recordTarget **SHALL** contain exactly one [1..1] **patientRole** (CONF:5566-22418).
    - i. This patientRole **SHALL** contain at least one [1..\*] **id** (CONF:5566-22419).  
 Note: A patient identifier representing the facility-assigned patient ID is required. Other identifiers for the person can also be present, such as a United States Social Security Number (id/@root = 2.16.840.1.113883.4.1), a Medicare beneficiary identifier (id/@root = 2.16.840.1.113883.4.338), or secondary patient IDs (id/@root = the appropriate facility OID for patient IDs). If there isn't an available "other" identifier, then there should not be an id present for that type of identifier.
      1. Such ids **SHALL** contain exactly one [1..1] **@root** (CONF:5566-22420).

2. Such ids **SHALL** contain exactly one [1..1] @extension (CONF:5566-22421).
- ii. This patientRole **SHALL** contain exactly one [1..1] patient (CONF:5566-22422).

In the name element, the sub-elements should be in the following order: family, given, and optionally a second given representing the middle name(s). A name element is not allowed to contain mixed content.

1. This patient **MAY** contain zero or one [0..1] name (CONF:5566-22423).
2. This patient **SHALL NOT** contain [0..0] administrativeGenderCode (CONF:5566-22424).
3. This patient **SHALL** contain exactly one [1..1] birthTime (CONF:5566-22426).
  - a. This birthTime **SHALL** contain exactly one [1..1] @value (CONF:5566-22427).
4. This patient **SHALL** contain exactly one [1..1] raceCode, which **SHALL** be selected from ValueSet [Race Category Excluding Nulls](#) urn:oid:2.16.840.1.113883.3.2074.1.1.3 **DYNAMIC** (CONF:5566-22428).

To represent unknown, set nullFlavor="UNK". To represent "declined to respond", set nullFlavor="ASKU".

- a. This raceCode **MAY** contain zero or one [0..1] @nullFlavor, which **SHOULD** be selected from ValueSet [Unknown or refused to answer](#) urn:oid:2.16.840.1.113762.1.4.1021.102 **DYNAMIC** (CONF:5566-30797).
5. This patient **MAY** contain zero or more [0..\*] sdtc:raceCode, which **SHALL** be selected from ValueSet [Race Value Set](#) urn:oid:2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:5566-30796).
6. This patient **SHALL** contain exactly one [1..1] ethnicGroupCode (ValueSet: [Ethnicity](#) urn:oid:2.16.840.1.114222.4.11.837 **DYNAMIC**) (CONF:5566-22429).

To represent unknown, set nullFlavor="UNK". To represent "declined to respond", set nullFlavor="ASKU".

- a. This ethnicGroupCode **MAY** contain zero or one [0..1] @nullFlavor, which **SHOULD** be selected from ValueSet [Unknown or refused to answer](#) urn:oid:2.16.840.1.113762.1.4.1021.102 **DYNAMIC** (CONF:5566-30798).
7. This patient **MAY** contain zero or more [0..\*] sdtc:ethnicGroupCode, which **SHALL** be selected from ValueSet [Detailed Ethnicity](#) urn:oid:2.16.840.1.114222.4.11.877 **DYNAMIC** (CONF:5566-30799).

8. This patient **SHALL** contain at least one [1..\*]  
**languageCommunication** (CONF:5566-30800).

To represent languages not represented in the bound value set, set nullFlavor="OTH", to represent "choose not to disclose language", set nullFlavor="ASKU", to represent "unknown language", set nullFlavor="UNK".

- a. Such languageCommunications **SHALL** contain exactly one [1..1] **languageCode**, which **SHALL** be selected from ValueSet [NHSN Abridged Primary Language List](#)  
urn:oid:2.16.840.1.114222.24.7.1 **DYNAMIC** (CONF:5566-30801).
  - i. This languageCode **MAY** contain zero or one [0..1] **@nullFlavor**, which **SHALL** be selected from ValueSet [Other or unknown or refused to answer](#)  
urn:oid:2.16.840.1.113762.1.4.1021.103 **DYNAMIC** (CONF:5566-31119).
- b. Such languageCommunications **SHOULD** contain zero or one [0..1] **preferenceInd** (CONF:5566-30804).
4. **SHALL** contain exactly one [1..1] **componentOf** (CONF:5566-31032) such that it
  - a. **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:5566-31033).
    - i. This encompassingEncounter **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5566-31036).
      1. This effectiveTime **MAY** contain zero or one [0..1] **@nullFlavor="NA"** not applicable (CONF:5566-31080).
5. **SHALL** contain exactly one [1..1] **component** (CONF:5566-22431).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:5566-22432).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-22433) such that it
      1. **SHALL** contain exactly one [1..1] [NHSN Social History Section \(V4\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.5.5.81:2025-05-01)  
(CONF:5566-22434).
6. The ClinicalDocument/author **MAY** be software or **MAY** be a person in the role of infection control professional (ICP) (CONF:5566-22430).

**Table 28: Race Category Excluding Nulls**

<p>Value Set: Race Category Excluding Nulls urn:oid:2.16.840.1.113883.3.2074.1.1.3 (Clinical Focus: The top-level "Race" concepts as defined by US Office of Management and Budget (OMB), excluding "Other race". All "Race" concepts in the Race and Ethnicity - CDC code system roll-up to one of these codes.), (Data Element Scope: Demographic categorization of a person's race (can be multiple).), (Inclusion Criteria: Direct children of the "1000-9 Race" concept in the Race and Ethnicity Code system.), (Exclusion Criteria: Specifically exclude "2131-1 Other Race" and any descendant of the concepts defined in the inclusion criteria.)</p> <p>This value set was imported on 10/24/2024 with a version of Latest.</p> <p>Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.2074.1.1.3/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.2074.1.1.3/expansion</a></p>			
Code	Code System	Code System OID	Print Name
1002-5	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	American Indian or Alaska Native
2028-9	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Asian
2054-5	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Black or African American
2076-8	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Native Hawaiian or Other Pacific Islander
2106-3	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	White

**Table 29: Ethnicity**

<p>Value Set: Ethnicity urn:oid:2.16.840.1.114222.4.11.837 (Clinical Focus: ), (Data Element Scope: ), (Inclusion Criteria: ), (Exclusion Criteria: )</p> <p>This value set was imported on 10/24/2024 with a version of Latest.</p> <p>Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.837/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.837/expansion</a></p>			
Code	Code System	Code System OID	Print Name
2135-2	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Hispanic or Latino
2186-5	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Not Hispanic or Latino

**Table 30: NHSN Abridged Primary Language List**

Value Set: NHSN Abridged Primary Language List urn:oid:2.16.840.1.114222.24.7.1 Comprehensive list of ISO 639 codes with input from the MN and CO Centers of Excellence in Newcomer Health, the American Community Survey Language codes, Ethnologue, Glottolog, and indigenous languages collected by expert linguists in the web-based tool, Languages of New York City. Of note, the NHSN Common Languages value set is not meant to be exhaustive, exclusionary, or imply the importance of any groups of language speakers over others. The list provides common languages spoken in US subpopulations, and only includes languages spoken where English fluency cannot be presumed. Value Set Source: <a href="https://www.cdc.gov/nhsn/pdfs/NHSN-Abridged-Primary-Language-List.xlsx">https://www.cdc.gov/nhsn/pdfs/NHSN-Abridged-Primary-Language-List.xlsx</a>			
Code	Code System	Code System OID	Print Name
abk	ISO 639-3	urn:oid:1.0.639.3	Abkhazian
ace	ISO 639-3	urn:oid:1.0.639.3	Achinese
ach	ISO 639-3	urn:oid:1.0.639.3	Acoli
aar	ISO 639-3	urn:oid:1.0.639.3	Afar
afg	ISO 639-3	urn:oid:1.0.639.3	Afghan Sign Language
aka	ISO 639-3	urn:oid:1.0.639.3	Akan
akl	ISO 639-3	urn:oid:1.0.639.3	Akalanon
mim	ISO 639-3	urn:oid:1.0.639.3	Alacatlalzala Mixtec
sqi	ISO 639-3	urn:oid:1.0.639.3	Albanian
sqk	ISO 639-3	urn:oid:1.0.639.3	Albanian Sign Language
...			

**Table 31: Unknown or refused to answer**

Value Set: Unknown or refused to answer urn:oid:2.16.840.1.113762.1.4.1021.102 (Clinical Focus: Codes used to represent unknown and refused to answer),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 2/20/2023 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.102/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.102/expansion</a>			
Code	Code System	Code System OID	Print Name
ASKU	HL7NullFlavor	urn:oid:2.16.840.1.113883.5.1008	asked but unknown
UNK	HL7NullFlavor	urn:oid:2.16.840.1.113883.5.1008	unknown

**Table 32: Race Value Set**

Value Set: Race Value Set urn:oid:2.16.840.1.113883.1.11.14914 (Clinical Focus: All concepts that can describe a person's "race" as defined by the United States Bureau of Census),(Data Element Scope: Personal Demographic information, can be multiple.),(Inclusion Criteria: All descendant concepts from the concept "1000-9 Race", excluding that root concept, as derived from the Race and Ethnicity - CDC code system.),(Exclusion Criteria: Concepts that are not a descendant of "Race", therefore, no concepts descendant from "2133-7 Ethnicity". Also the root concept "Race".)  This value set was imported on 10/24/2024 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.14914/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.14914/expansion</a>			
Code	Code System	Code System OID	Print Name
1002-5	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	American Indian or Alaska Native
1004-1	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	American Indian
1006-6	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Abenaki
1008-2	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Algonquian
1010-8	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Apache
1011-6	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Chiricahua
1012-4	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Fort Sill Apache
1013-2	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Jicarilla Apache
1014-0	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Lipan Apache
1015-7	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Mescalero Apache
...			

**Table 33: Detailed Ethnicity**

<p>Value Set: Detailed Ethnicity urn:oid:2.16.840.1.114222.4.11.877</p> <p>(Clinical Focus: All concepts that can describe a person's "ethnicity" as defined by the United States Bureau of Census. This includes the US Office of Management and Budget (OMB) two top-level ethnicity categories, plus all the more detailed descendant ethnicity concepts used by the US Bureau of Census.),(Data Element Scope: Personal Demographic information, can be multiple.),(Inclusion Criteria: All descendant concepts from the concept "2133-7 Ethnicity", excluding that root concept, as derived from the Race and Ethnicity - CDC code system.),(Exclusion Criteria: Concepts that are not a descendant of "2133-7 Ethnicity", therefore, no concepts descendant from "1000-9 Race". Also the root concept "Ethnicity".)</p> <p>This value set was imported on 10/24/2024 with a version of Latest.</p> <p>Value Set Source:</p> <p><a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.877/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.877/expansion</a></p>			
Code	Code System	Code System OID	Print Name
2137-8	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Spaniard
2138-6	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Andalusian
2139-4	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Asturian
2140-2	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Castillian
2141-0	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Catalonian
2142-8	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Belearic Islander
2143-6	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Gallego
2144-4	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Valencian
2145-1	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Canarian
2146-9	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Spanish Basque
...			

**Table 34: Other or unknown or refused to answer**

Value Set: Other or unknown or refused to answer urn:oid:2.16.840.1.113762.1.4.1021.103 (Clinical Focus: Concepts that represent general ideas of a choice other than those provided, or the value is unknown by the data enterer, or the informant refused to answer),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 8/28/2024 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.103/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.103/expansion</a>			
Code	Code System	Code System OID	Print Name
ASKU	HL7NullFlavor	urn:oid:2.16.840.1.113883.5.1008	asked but unknown
OTH	HL7NullFlavor	urn:oid:2.16.840.1.113883.5.1008	other
UNK	HL7NullFlavor	urn:oid:2.16.840.1.113883.5.1008	unknown

### 1.1.13 Outpatient Procedure Component Denominator for Procedure Report (V6)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.56:2025-05-01 (closed)]

Draft as part of NHSN Healthcare Associated Infection Reports Release 4, STU 4 - US Realm

**Table 35: Outpatient Procedure Component Denominator for Procedure Report (V6) Contexts**

Contained By:	Contains:
	<a href="#">NHSN Comment Section</a> (optional) <a href="#">Procedure Details Section in an OPC Denominator for Procedure</a> (required) <a href="#">Infection Risk Factors Section in an OPC Denominator for Procedure</a> (required)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report records an outpatient procedure performed.

Preferred document title: “Outpatient Procedure Component Denominator for Procedure Report”.

Key encounter data:

- The facility id is required. Unit identifier and unit type are not reported.

Other dates and locations:

- The date of the procedure is recorded as effectiveTime in the Procedure Details in an OPC Denominator for Procedure.

Other notes: The procedure id is recorded in the id of the Procedure Details in an OPC Denominator for Procedure template. NHSN uses this to establish a link between OPC Procedure for Denominator and OPC SSI Reports.



**Table 36: Outpatient Procedure Component Denominator for Procedure Report (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.56:2025-05-01)					
templateId	1..1	SHALL		<a href="#">5566-30619</a>	
@root	1..1	SHALL		<a href="#">5566-30632</a>	2.16.840.1.113883.10.20.5.7.4.4
templateId	1..1	SHALL		<a href="#">5566-30631</a>	
@root	1..1	SHALL		<a href="#">5566-30638</a>	2.16.840.1.113883.10.20.5.56
@extension	1..1	SHALL		<a href="#">5566-30641</a>	2025-05-01
title	1..1	SHALL		<a href="#">5566-30713</a>	
componentOf	1..1	SHALL		<a href="#">5566-30620</a>	
encompassingEncounter	1..1	SHALL		<a href="#">5566-30621</a>	
code	1..1	SHALL		<a href="#">5566-30633</a>	
@code	1..1	SHALL		<a href="#">5566-30642</a>	AMB
@codeSystem	1..1	SHALL		<a href="#">5566-30643</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
effectiveTime	1..1	SHALL		<a href="#">5566-30639</a>	
low	1..1	SHALL		<a href="#">5566-30640</a>	
@value	1..1	SHALL		<a href="#">5566-30644</a>	
location	1..1	SHALL		<a href="#">5566-30622</a>	
healthCareFacility	1..1	SHALL		<a href="#">5566-30623</a>	
id	1..1	SHALL		<a href="#">5566-30624</a>	
@root	1..1	SHALL		<a href="#">5566-30634</a>	
@extension	0..1	MAY		<a href="#">5566-30635</a>	
code	0..1	MAY		<a href="#">5566-30636</a>	urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocati

XPath	Card.	Verb	Data Type	CONF#	Value
					onCode)
component	1..1	SHALL		<a href="#">5566-30625</a>	
structuredBody	1..1	SHALL		<a href="#">5566-30626</a>	
component	1..1	SHALL		<a href="#">5566-30627</a>	
section	1..1	SHALL		<a href="#">5566-30628</a>	<a href="#">Procedure Details Section in an OPC Denominator for Procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.67:2019-04-01)</a>
component	1..1	SHALL		<a href="#">5566-30629</a>	
section	1..1	SHALL		<a href="#">5566-30630</a>	<a href="#">Infection Risk Factors Section in an OPC Denominator for Procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.68:2019-04-01)</a>
component	0..1	MAY		<a href="#">5566-30665</a>	
section	1..1	SHALL		<a href="#">5566-30666</a>	<a href="#">NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01)</a>

1. Conforms to [HAI Single-Person Report Generic Constraints \(V6\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-30619) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30632).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-30631) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.56" (CONF:5566-30638).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-30641).
4. **SHALL** contain exactly one [1..1] **title** (CONF:5566-30713).  
Note: Preferred document title: "Outpatient Procedure Component Denominator for Procedure".
5. **SHALL** contain exactly one [1..1] **componentOf** (CONF:5566-30620).
  - a. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:5566-30621).
    - i. This encompassingEncounter **SHALL** contain exactly one [1..1] **code** (CONF:5566-30633).

1. This code **SHALL** contain exactly one [1..1] **@code**="AMB" Outpatient (CONF:5566-30642).
2. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:5566-30643).
- ii. This encompassingEncounter **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5566-30639).
  1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:5566-30640).
    - a. This low **SHALL** contain exactly one [1..1] **@value** (CONF:5566-30644).  
Note: Admission Date
- iii. This encompassingEncounter **SHALL** contain exactly one [1..1] **location** (CONF:5566-30622).
  1. This location **SHALL** contain exactly one [1..1] **healthCareFacility** (CONF:5566-30623).
    - a. This healthCareFacility **SHALL** contain exactly one [1..1] **id** (CONF:5566-30624).

The value of **@root** must be the NHSN assigned Facility OID.

- i. This id **SHALL** contain exactly one [1..1] **@root** (CONF:5566-30634).

The value of **@extension**, if supplied, must be a value registered with NHSN.

- ii. This id **MAY** contain zero or one [0..1] **@extension** (CONF:5566-30635).
  - b. This healthCareFacility **MAY** contain zero or one [0..1] **code**, which **SHALL** be selected from ValueSet [NHSNHealthcareServiceLocationCode](#) urn:oid:2.16.840.1.113883.13.19 **DYNAMIC** (CONF:5566-30636).
6. **SHALL** contain exactly one [1..1] **component** (CONF:5566-30625).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:5566-30626).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-30627) such that it
      1. **SHALL** contain exactly one [1..1] [Procedure Details Section in an OPC Denominator for Procedure](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.67:2019-04-01) (CONF:5566-30628).
    - ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-30629) such that it
      1. **SHALL** contain exactly one [1..1] [Infection Risk Factors Section in an OPC Denominator for Procedure](#) (identifier:

urn:hl7ii:2.16.840.1.113883.10.20.5.5.68:2019-04-01)  
(CONF:5566-30630).

iii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:5566-30665) such that it

1. **SHALL** contain exactly one [1..1] [NHSN Comment Section](#)

(identifier:

urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01)  
(CONF:5566-30666).

**Table 37: NHSNHealthcareServiceLocationCode**

Value Set: NHSNHealthcareServiceLocationCode urn:oid:2.16.840.1.113883.13.19 (Clinical Focus: NHSN surveillance reporting: A classification of patient care locations within healthcare facilities for public health surveillance purposes.),(Data Element Scope: Code identifying the type of service location in a health care facility.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.19/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.19/expansion</a>			
Code	Code System	Code System OID	Print Name
1005-8	HSLOC	urn:oid:2.16.840.1.113883.6.259	Cardiac Catheterization Room/Suite
1007-4	HSLOC	urn:oid:2.16.840.1.113883.6.259	Endoscopy Suite
1008-2	HSLOC	urn:oid:2.16.840.1.113883.6.259	Radiology
1009-0	HSLOC	urn:oid:2.16.840.1.113883.6.259	Pulmonary Function Testing
1010-8	HSLOC	urn:oid:2.16.840.1.113883.6.259	General Laboratory
1011-6	HSLOC	urn:oid:2.16.840.1.113883.6.259	Clinical Chemistry Laboratory
1012-4	HSLOC	urn:oid:2.16.840.1.113883.6.259	Hematology Laboratory
1013-2	HSLOC	urn:oid:2.16.840.1.113883.6.259	Histology-Surgical Pathology Laboratory
1014-0	HSLOC	urn:oid:2.16.840.1.113883.6.259	Microbiology Laboratory
1015-7	HSLOC	urn:oid:2.16.840.1.113883.6.259	Serology Laboratory
...			

### 1.1.14 HAI AUR Antimicrobial Resistance Option (ARO) Report (V10)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.31:2025-05-01 (closed)]

Draft as part of NHSN Healthcare Associated Infection Reports Release 4, STU 4 - US Realm

**Table 38: HAI AUR Antimicrobial Resistance Option (ARO) Report (V10) Contexts**

Contained By:	Contains:
	<a href="#">Findings Section in an ARO Report (V5)</a> (required)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report records the antimicrobial susceptibility testing results for one pathogen isolate from an individual patient subject. Each report records a single organism.

Preferred document title: “Antimicrobial Resistance Option (ARO) Report”

Key encounter data:

- The encounter type (inpatient or outpatient) is required.
- An admission date is required.
- The facility identifier is required. Unit identifier and unit type are not recorded in the header.

Other dates and locations:

- Date of specimen collection is recorded in the effectiveTime element of the Specimen Collection Procedure (V2) template.

**Table 39: HAI AUR Antimicrobial Resistance Option (ARO) Report (V10) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.31:2025-05-01)					
templateId	1..1	SHALL		<a href="#">5566-30540</a>	
@root	1..1	SHALL		<a href="#">5566-30541</a>	2.16.840.1.113883.10.20.5.7.4.4
templateId	1..1	SHALL		<a href="#">5566-21951</a>	
@root	1..1	SHALL		<a href="#">5566-21952</a>	2.16.840.1.113883.10.20.5.31
@extension	1..1	SHALL		<a href="#">5566-30542</a>	2025-05-01
title	1..1	SHALL		<a href="#">5566-30794</a>	
componentOf	1..1	SHALL		<a href="#">5566-21139</a>	
encompassingEncounter	1..1	SHALL		<a href="#">5566-21140</a>	
code	1..1	SHALL		<a href="#">5566-21141</a>	urn:oid:2.16.840.1.113883.13.1 (NHSNEncounterTypeCode)
effectiveTime	1..1	SHALL		<a href="#">5566-21143</a>	
low	1..1	SHALL		<a href="#">5566-21144</a>	
@value	1..1	SHALL		<a href="#">5566-21145</a>	
location	1..1	SHALL		<a href="#">5566-21146</a>	
healthCareFacility	1..1	SHALL		<a href="#">5566-21147</a>	
id	1..1	SHALL		<a href="#">5566-21148</a>	
@root	1..1	SHALL		<a href="#">5566-21149</a>	
component	1..1	SHALL		<a href="#">5566-21150</a>	
structuredBody	1..1	SHALL		<a href="#">5566-21151</a>	
component	1..1	SHALL		<a href="#">5566-21152</a>	
section	1..1	SHALL		<a href="#">5566-21153</a>	<a href="#">Findings Section in an ARO Report (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.32:2024-05-01)</a>

1. Conforms to [HAI Single-Person Report Generic Constraints \(V6\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-30540) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30541).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-21951) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.31" (CONF:5566-21952).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-30542).

Preferred document title: "Antimicrobial Resistance Option (ARO) Report"

4. **SHALL** contain exactly one [1..1] **title** (CONF:5566-30794).
5. **SHALL** contain exactly one [1..1] **componentOf** (CONF:5566-21139).
  - a. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:5566-21140).
    - i. This encompassingEncounter **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNEncounterTypeCode](#) urn:oid:2.16.840.1.113883.13.1 **DYNAMIC** (CONF:5566-21141).
    - ii. This encompassingEncounter **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5566-21143).
      1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:5566-21144).
        - a. This low **SHALL** contain exactly one [1..1] **@value** (CONF:5566-21145).

Note: Admission Date
      2. The value of the admission date **SHALL NOT** be earlier than January 1, 1986; **SHALL NOT** be earlier than the date of birth; and **SHALL NOT** be later than the event date (CONF:5566-23358).
    - iii. This encompassingEncounter **SHALL** contain exactly one [1..1] **location** (CONF:5566-21146).
      1. This location **SHALL** contain exactly one [1..1] **healthCareFacility** (CONF:5566-21147).
        - a. This healthCareFacility **SHALL** contain exactly one [1..1] **id** (CONF:5566-21148).

The value of **@root** must be the NHSN assigned Facility OID.

- i. This id **SHALL** contain exactly one [1..1] **@root** (CONF:5566-21149).
6. **SHALL** contain exactly one [1..1] **component** (CONF:5566-21150).
    - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:5566-21151).
      - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-21152) such that it

1. **SHALL** contain exactly one [1..1] [Findings Section in an ARO Report \(V5\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.5.5.32:2024-05-01)  
(CONF:5566-21153).

**Table 40: NHSN EncounterTypeCode**

Value Set: NHSN EncounterTypeCode urn:oid:2.16.840.1.113883.13.1 (Clinical Focus: ),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )			
This value set was imported on 10/14/2020 with a version of Latest.			
Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.1/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.1/expansion</a>			
Code	Code System	Code System OID	Print Name
AMB	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	ambulatory
IMP	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	inpatient encounter
EMER	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	emergency
FLD	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	field
HH	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	home health
ACUTE	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	inpatient acute
NONAC	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	inpatient non-acute
OBSENC	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	observation encounter
PRENC	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	pre-admission
SS	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	short stay
...			

### 1.1.15 HAI Bloodstream Infection Report (BSI) (V9)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.32:2025-05-01 (closed)]

Draft as part of NHSN Healthcare Associated Infection Reports Release 4, STU 4 - US Realm

**Table 41: HAI Bloodstream Infection Report (BSI) (V9) Contexts**

Contained By:	Contains:
	<a href="#">Infection Details Section in a BSI Report</a> (required) <a href="#">Findings Section in an Infection-Type Report</a> (required) <a href="#">NHSN Comment Section</a> (optional) <a href="#">Infection Risk Factors Section in a BSI Report (V3)</a> (required) <a href="#">COVID-19 Section (V2)</a> (required)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report type records a bloodstream infection event.



Preferred document title: “Bloodstream Infection Report (BSI)”.

Key encounter data:

- A value for admission date is required.
- A value for discharge date may be recorded.
- The facility id, unit identifier, and unit type are required.

Other dates and locations:

- The date of the infection event is recorded as `effectiveTime` in the Infection-Type Observation.

**Table 42: HAI Bloodstream Infection Report (BSI) (V9) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.32:2025-05-01)					
templateId	1..1	SHALL		<a href="#">5566-28307</a>	
@root	1..1	SHALL		<a href="#">5566-28308</a>	2.16.840.1.113883.10.20.5.7.4.4
templateId	1..1	SHALL		<a href="#">5566-22460</a>	
@root	1..1	SHALL		<a href="#">5566-22461</a>	2.16.840.1.113883.10.20.5.32
@extension	1..1	SHALL		<a href="#">5566-28432</a>	2025-05-01
title	1..1	SHALL		<a href="#">5566-30865</a>	
componentOf	1..1	SHALL		<a href="#">5566-22462</a>	
encompassingEncounter	1..1	SHALL		<a href="#">5566-22463</a>	
effectiveTime	1..1	SHALL		<a href="#">5566-22464</a>	
low	1..1	SHALL		<a href="#">5566-22465</a>	
@value	1..1	SHALL		<a href="#">5566-22466</a>	
high	0..1	MAY		<a href="#">5566-22467</a>	
@value	1..1	SHALL		<a href="#">5566-22468</a>	
location	1..1	SHALL		<a href="#">5566-22469</a>	
healthCareFacility	1..1	SHALL		<a href="#">5566-22470</a>	
id	1..1	SHALL		<a href="#">5566-22471</a>	
@root	1..1	SHALL		<a href="#">5566-22472</a>	
@extension	1..1	SHALL		<a href="#">5566-22473</a>	
code	1..1	SHALL		<a href="#">5566-22474</a>	urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode)
component	1..1	SHALL		<a href="#">5566-22476</a>	
structuredBody	1..1	SHALL		<a href="#">5566-</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
				<a href="#">22477</a>	
component	1..1	SHALL		<a href="#">5566-22478</a>	
section	1..1	SHALL		<a href="#">5566-22479</a>	<a href="#">Infection Risk Factors Section in a BSI Report (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.33:2018-04-01)</a>
component	1..1	SHALL		<a href="#">5566-30866</a>	
section	1..1	SHALL		<a href="#">5566-30867</a>	<a href="#">COVID-19 Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01)</a>
component	1..1	SHALL		<a href="#">5566-22480</a>	
section	1..1	SHALL		<a href="#">5566-22481</a>	<a href="#">Infection Details Section in a BSI Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.38)</a>
component	1..1	SHALL		<a href="#">5566-22482</a>	
section	1..1	SHALL		<a href="#">5566-22483</a>	<a href="#">Findings Section in an Infection-Type Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45)</a>
component	0..1	MAY		<a href="#">5566-28411</a>	
section	1..1	SHALL		<a href="#">5566-28412</a>	<a href="#">NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01)</a>

1. Conforms to [HAI Single-Person Report Generic Constraints \(V6\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-28307) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-28308).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-22460) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.32" (CONF:5566-22461).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-28432).

Preferred document title: "Bloodstream Infection Report (BSI)".

4. **SHALL** contain exactly one [1..1] **title** (CONF:5566-30865).
5. **SHALL** contain exactly one [1..1] **componentOf** (CONF:5566-22462).
  - a. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:5566-22463).
    - i. This encompassingEncounter **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5566-22464).
      1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:5566-22465).
        - a. This low **SHALL** contain exactly one [1..1] **@value** (CONF:5566-22466).  
Note: Admission Date
      2. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:5566-22467).
        - a. The high, if present, **SHALL** contain exactly one [1..1] **@value** (CONF:5566-22468).  
Note: Discharge Date
      3. The value of the admission date **SHALL NOT** be earlier than January 1, 1986; **SHALL NOT** be earlier than the date of birth; and **SHALL NOT** be later than the event date (CONF:5566-23359).
    - ii. This encompassingEncounter **SHALL** contain exactly one [1..1] **location** (CONF:5566-22469).
      1. This location **SHALL** contain exactly one [1..1] **healthCareFacility** (CONF:5566-22470).
        - a. This healthCareFacility **SHALL** contain exactly one [1..1] **id** (CONF:5566-22471).

The value of @root must be the NHSN assigned Facility OID.

- i. This id **SHALL** contain exactly one [1..1] **@root** (CONF:5566-22472).

The value of @extension must be a value registered with NHSN.

- ii. This id **SHALL** contain exactly one [1..1] **@extension** (CONF:5566-22473).
    - b. This healthCareFacility **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNHealthcareServiceLocationCode](#) urn:oid:2.16.840.1.113883.13.19 **DYNAMIC** (CONF:5566-22474).
6. **SHALL** contain exactly one [1..1] **component** (CONF:5566-22476).
    - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:5566-22477).
      - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-22478) such that it
        1. **SHALL** contain exactly one [1..1] [Infection Risk Factors Section in a BSI Report \(V3\)](#) (identifier:

- urn:hl7ii:2.16.840.1.113883.10.20.5.5.33:2018-04-01)  
(CONF:5566-22479).
- ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-30866) such that it
    1. **SHALL** contain exactly one [1..1] [COVID-19 Section \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01)  
(CONF:5566-30867).
  - iii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-22480) such that it
    1. **SHALL** contain exactly one [1..1] [Infection Details Section in a BSI Report](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.5.5.38) (CONF:5566-22481).
  - iv. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-22482) such that it
    1. **SHALL** contain exactly one [1..1] [Findings Section in an Infection-Type Report](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.5.5.45) (CONF:5566-22483).
  - v. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:5566-28411) such that it
    1. **SHALL** contain exactly one [1..1] [NHSN Comment Section](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01)  
(CONF:5566-28412).

#### 1.1.16 HAI Central-Line Insertion Practice Numerator Report (V7)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.36:2025-05-01 (closed)]

Draft as part of NHSN Healthcare Associated Infection Reports Release 4, STU 4 - US Realm

**Table 43: HAI Central-Line Insertion Practice Numerator Report (V7) Contexts**

Contained By:	Contains:
	<a href="#">Procedure Details Section in a CLIP Report</a> (required) <a href="#">Infection Risk Factors Section in a CLIP Report (V2)</a> (required)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report records whether the steps in a central-line insertion practice protocol were followed in the required order.

Preferred document title: “Central-Line Insertion Practices (CLIP) Report”

Key encounter data:

- Admission date is recorded as nullFlavor NI (no information).

- Facility id, unit identifier, and unit type are required.

Other dates and locations: None

**Table 44: HAI Central-Line Insertion Practice Numerator Report (V7) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.36:2025-05-01)					
templateId	1..1	SHALL		<a href="#">5566-30543</a>	
@root	1..1	SHALL		<a href="#">5566-30544</a>	2.16.840.1.113883.10.20.5.7.4.4
templateId	1..1	SHALL		<a href="#">5566-22553</a>	
@root	1..1	SHALL		<a href="#">5566-22554</a>	2.16.840.1.113883.10.20.5.36
@extension	1..1	SHALL		<a href="#">5566-30284</a>	2025-05-01
title	1..1	SHALL		<a href="#">5566-30609</a>	
componentOf	1..1	SHALL		<a href="#">5566-22555</a>	
encompassingEncounter	1..1	SHALL		<a href="#">5566-22556</a>	
effectiveTime	1..1	SHALL		<a href="#">5566-22557</a>	
low	1..1	SHALL		<a href="#">5566-22558</a>	
@nullFlavor	1..1	SHALL	CS	<a href="#">5566-22559</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NI
location	1..1	SHALL		<a href="#">5566-22560</a>	
healthCareFacility	1..1	SHALL		<a href="#">5566-22561</a>	
id	1..1	SHALL		<a href="#">5566-22562</a>	
@root	1..1	SHALL		<a href="#">5566-22563</a>	
@extension	1..1	SHALL		<a href="#">5566-22564</a>	
code	1..1	SHALL		<a href="#">5566-22565</a>	urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode)
component	1..1	SHALL		<a href="#">5566-22567</a>	
structuredBody	1..1	SHALL		<a href="#">5566-22568</a>	
component	1..1	SHALL		<a href="#">5566-22569</a>	
section	1..1	SHALL		<a href="#">5566-</a>	<a href="#">Infection Risk Factors Section</a>

XPath	Card.	Verb	Data Type	CONF#	Value
				<a href="#">30424</a>	<a href="#">in a CLIP Report (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.34:2014-12-01)</a>
component	1..1	SHALL		<a href="#">5566-22571</a>	
section	1..1	SHALL		<a href="#">5566-22572</a>	<a href="#">Procedure Details Section in a CLIP Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.42)</a>

1. Conforms to [HAI Single-Person Report Generic Constraints \(V6\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-30543) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30544).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-22553) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.36" (CONF:5566-22554).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-30284).

Preferred document title: "Central-Line Insertion Practices (CLIP) Report"

4. **SHALL** contain exactly one [1..1] **title** (CONF:5566-30609).
5. **SHALL** contain exactly one [1..1] **componentOf** (CONF:5566-22555).
  - a. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:5566-22556).
    - i. This encompassingEncounter **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5566-22557).
      1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:5566-22558).
        - a. This low **SHALL** contain exactly one [1..1] **@nullFlavor**="NI" No information (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008 **STATIC**) (CONF:5566-22559).
      - ii. This encompassingEncounter **SHALL** contain exactly one [1..1] **location** (CONF:5566-22560).
        1. This location **SHALL** contain exactly one [1..1] **healthCareFacility** (CONF:5566-22561).
          - a. This healthCareFacility **SHALL** contain exactly one [1..1] **id** (CONF:5566-22562).

The value of **@root** must be the NHSN assigned Facility OID.



- i. This id **SHALL** contain exactly one [1..1] **@root** (CONF:5566-22563).

The value of **@extension** must be a value registered with NHSN.

- ii. This id **SHALL** contain exactly one [1..1] **@extension** (CONF:5566-22564).
- b. This healthCareFacility **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNHealthcareServiceLocationCode](#) urn:oid:2.16.840.1.113883.13.19 **DYNAMIC** (CONF:5566-22565).
6. **SHALL** contain exactly one [1..1] **component** (CONF:5566-22567).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:5566-22568).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-22569) such that it
      1. **SHALL** contain exactly one [1..1] [Infection Risk Factors Section in a CLIP Report \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.34:2014-12-01) (CONF:5566-30424).
    - ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-22571) such that it
      1. **SHALL** contain exactly one [1..1] [Procedure Details Section in a CLIP Report](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.42) (CONF:5566-22572).

### 1.1.17 HAI Evidence of Infection (Dialysis) Report (V11)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.37:2025-05-01 (closed)]

Draft as part of NHSN Healthcare Associated Infection Reports Release 4, STU 4 - US Realm

**Table 45: HAI Evidence of Infection (Dialysis) Report (V11) Contexts**

Contained By:	Contains:
	<a href="#">Findings Section in an Infection-Type Report</a> (optional) <a href="#">Details Section in an Evidence of Infection (Dialysis) Report (V6)</a> (required) <a href="#">Risk Factors Section in an Evidence of Infection (Dialysis) Report (V5)</a> (required)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

The report records evidence of infection in a chronic hemodialysis patient.

Preferred document title: “Evidence of Infection, Dialysis Report (EOID)”

Key encounter data:

- Encounter type is recorded as outpatient (AMB).
- Admission date is recorded as nullFlavor NA (not applicable).
- Facility id, unit identifier, and unit type are required.

Other dates and locations: None

**Table 46: HAI Evidence of Infection (Dialysis) Report (V11) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.37:2025-05-01)					
templateId	1..1	SHALL		<a href="#">5566-30674</a>	
@root	1..1	SHALL		<a href="#">5566-30675</a>	2.16.840.1.113883.10.20.5.7.4.4
templateId	1..1	SHALL		<a href="#">5566-22573</a>	
@root	1..1	SHALL		<a href="#">5566-30254</a>	2.16.840.1.113883.10.20.5.37
@extension	1..1	SHALL		<a href="#">5566-30285</a>	2025-05-01
title	1..1	SHALL		<a href="#">5566-30983</a>	
componentOf	1..1	SHALL		<a href="#">5566-22575</a>	
encompassingEncounter	1..1	SHALL		<a href="#">5566-22576</a>	
code	1..1	SHALL		<a href="#">5566-22577</a>	
@code	1..1	SHALL		<a href="#">5566-22578</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = AMB
effectiveTime	1..1	SHALL		<a href="#">5566-22579</a>	
low	1..1	SHALL		<a href="#">5566-22580</a>	
@nullFlavor	1..1	SHALL		<a href="#">5566-22581</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA
location	1..1	SHALL		<a href="#">5566-22582</a>	
healthCareFacility	1..1	SHALL		<a href="#">5566-22583</a>	
id	1..1	SHALL		<a href="#">5566-22584</a>	
@root	1..1	SHALL		<a href="#">5566-22585</a>	
@extension	1..1	SHALL		<a href="#">5566-22586</a>	
code	1..1	SHALL		<a href="#">5566-22587</a>	urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode)
component	1..1	SHALL		<a href="#">5566-22589</a>	
structuredBody	1..1	SHALL		<a href="#">5566-</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
				<a href="#">22590</a>	
component	1..1	SHALL		<a href="#">5566-22591</a>	
section	1..1	SHALL		<a href="#">5566-22592</a>	<a href="#">Risk Factors Section in an Evidence of Infection (Dialysis) Report (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.37:2023-12-01)</a>
component	1..1	SHALL		<a href="#">5566-22593</a>	
section	1..1	SHALL		<a href="#">5566-30253</a>	<a href="#">Details Section in an Evidence of Infection (Dialysis) Report (V6) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.41:2019-04-01)</a>
component	0..1	MAY		<a href="#">5566-23302</a>	
section	1..1	SHALL		<a href="#">5566-23303</a>	<a href="#">Findings Section in an Infection-Type Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45)</a>

1. Conforms to [HAI Single-Person Report Generic Constraints \(V6\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-30674) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30675).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-22573) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.37" (CONF:5566-30254).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-30285).

Preferred document title: "Evidence of Infection, Dialysis Report (EOID)"

4. **SHALL** contain exactly one [1..1] **title** (CONF:5566-30983).
5. **SHALL** contain exactly one [1..1] **componentOf** (CONF:5566-22575).
  - a. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:5566-22576).
    - i. This encompassingEncounter **SHALL** contain exactly one [1..1] **code** (CONF:5566-22577).
      1. This code **SHALL** contain exactly one [1..1] **@code**="AMB" Ambulatory (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4 **STATIC**) (CONF:5566-22578).

- ii. This encompassingEncounter **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5566-22579).
  - 1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:5566-22580).
    - a. This low **SHALL** contain exactly one [1..1] **@nullFlavor="NA"** (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008 **STATIC**) (CONF:5566-22581).
- iii. This encompassingEncounter **SHALL** contain exactly one [1..1] **location** (CONF:5566-22582).
  - 1. This location **SHALL** contain exactly one [1..1] **healthCareFacility** (CONF:5566-22583).
    - a. This healthCareFacility **SHALL** contain exactly one [1..1] **id** (CONF:5566-22584).

The value of @root must be the NHSN assigned Facility OID.

- i. This id **SHALL** contain exactly one [1..1] **@root** (CONF:5566-22585).

The value of @extension must be a value registered with NHSN.

- ii. This id **SHALL** contain exactly one [1..1] **@extension** (CONF:5566-22586).
    - b. This healthCareFacility **SHALL** contain exactly one [1..1] **code** (ValueSet: [NHSNHealthcareServiceLocationCode](#) urn:oid:2.16.840.1.113883.13.19 **DYNAMIC**) (CONF:5566-22587).
6. **SHALL** contain exactly one [1..1] **component** (CONF:5566-22589).
- a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:5566-22590).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-22591) such that it
      - 1. **SHALL** contain exactly one [1..1] [Risk Factors Section in an Evidence of Infection \(Dialysis\) Report \(V5\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.37:2023-12-01) (CONF:5566-22592).
    - ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-22593) such that it
      - 1. **SHALL** contain exactly one [1..1] [Details Section in an Evidence of Infection \(Dialysis\) Report \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.41:2019-04-01) (CONF:5566-30253).
    - iii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:5566-23302) such that it

1. **SHALL** contain exactly one [1..1] [Findings Section in an Infection-Type Report](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45) (CONF:5566-23303).
- iv. If a positive blood culture was obtained (Positive Blood Culture Observation/@negationInd="false") the component containing Findings Section in an Infection-Type Report **SHALL** be present (CONF:5566-30984).

#### 1.1.18 HAI Laboratory-Identified Organism (LIO) Report (V7)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.38:2025-05-01 (closed)]

Draft as part of NHSN Healthcare Associated Infection Reports Release 4, STU 4 - US Realm

**Table 47: HAI Laboratory-Identified Organism (LIO) Report (V7) Contexts**

Contained By:	Contains:
	<a href="#">Encounters Section in a LIO Report (V2)</a> (required) <a href="#">Findings Section in a LIO Report (V2)</a> (required)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report records the laboratory identification of a microorganism in a specimen. This is not an infection-type report: the presence of the organism is not equivalent to the presence of an infection. These reports are submitted if the facility is monitoring the organism identified. Each report records a single organism.

Preferred document title: “Laboratory-identified Organism Report (LIO)”

Key encounter data:

- The encounter type (inpatient/outpatient) is required.
- An admission date or encounter date is required. (If the patient is an outpatient, the date of specimen collection is also used in the header as the date of admission.)
- The facility identifier is required. Unit identifier and unit type are not recorded in the header.

Other dates and locations:

- The date of admission to the in-facility location where the specimen was collected is recorded in encompassingEncounter/effectiveTime.
- The date of specimen collection (also recorded as admission date if the patient was an outpatient) is recorded in effectiveTime in the Specimen Collection Procedure (LIO) template.

**Table 48: HAI Laboratory-Identified Organism (LIO) Report (V7) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.38:2025-05-01)					
templateId	1..1	SHALL		<a href="#">5566-30547</a>	
@root	1..1	SHALL		<a href="#">5566-30548</a>	2.16.840.1.113883.10.20.5.7.4.4
templateId	1..1	SHALL		<a href="#">5566-22597</a>	
@root	1..1	SHALL		<a href="#">5566-22598</a>	2.16.840.1.113883.10.20.5.38
@extension	1..1	SHALL		<a href="#">5566-30286</a>	2025-05-01
title	1..1	SHALL		<a href="#">5566-30610</a>	
componentOf	1..1	SHALL		<a href="#">5566-22599</a>	
encompassingEncounter	1..1	SHALL		<a href="#">5566-22600</a>	
code	1..1	SHALL		<a href="#">5566-22601</a>	urn:oid:2.16.840.1.113883.13.1 (NHSNEncounterTypeCode)
effectiveTime	1..1	SHALL		<a href="#">5566-22603</a>	
low	1..1	SHALL		<a href="#">5566-22604</a>	
@nullFlavor	0..1	MAY		<a href="#">5566-23305</a>	
@value	0..1	MAY		<a href="#">5566-22605</a>	
location	1..1	SHALL		<a href="#">5566-22606</a>	
healthCareFacility	1..1	SHALL		<a href="#">5566-22607</a>	
id	1..1	SHALL		<a href="#">5566-22608</a>	
@root	1..1	SHALL		<a href="#">5566-22609</a>	
component	1..1	SHALL		<a href="#">5566-22610</a>	
structuredBody	1..1	SHALL		<a href="#">5566-22611</a>	
component	1..1	SHALL		<a href="#">5566-22612</a>	
section	1..1	SHALL		<a href="#">5566-30420</a>	<a href="#">Findings Section in a LIO Report (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1</a>

XPath	Card.	Verb	Data Type	CONF#	Value
					<a href="#">0.20.5.5.46:2014-12-01</a>
component	1..1	SHALL		<a href="#">5566-22614</a>	
section	1..1	SHALL		<a href="#">5566-30421</a>	<a href="#">Encounters Section in a LIO Report (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.44:2014-12-01)</a>

1. Conforms to [HAI Single-Person Report Generic Constraints \(V6\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-30547) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30548).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-22597) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.38" (CONF:5566-22598).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-30286).

Preferred document title: "Laboratory-identified Organism Report (LIO)"

4. **SHALL** contain exactly one [1..1] **title** (CONF:5566-30610).
5. **SHALL** contain exactly one [1..1] **componentOf** (CONF:5566-22599).
  - a. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:5566-22600).
    - i. This encompassingEncounter **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSN Encounter Type Code](#) urn:oid:2.16.840.1.113883.13.1 **DYNAMIC** (CONF:5566-22601).
    - ii. This encompassingEncounter **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5566-22603).
      1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:5566-22604).
        - a. This low **MAY** contain zero or one [0..1] **@nullFlavor** (CONF:5566-23305).
        - b. This low **MAY** contain zero or one [0..1] **@value** (CONF:5566-22605).  
Note: Admission Date
        - c. If encounter type is IMP, effectiveTime/low/@value is required; if encounter type is AMB, effectiveTime/low/@value is required (use (copy) Date Specimen Collected) (CONF:5566-23306).
      2. The value of the admission date **SHALL NOT** be earlier than January 1, 1986; **SHALL NOT** be earlier than the date of birth; and **SHALL NOT** be later than the event date (CONF:5566-23360).



- iii. This encompassingEncounter **SHALL** contain exactly one [1..1] **location** (CONF:5566-22606).
  1. This location **SHALL** contain exactly one [1..1] **healthCareFacility** (CONF:5566-22607).
    - a. This healthCareFacility **SHALL** contain exactly one [1..1] **id** (CONF:5566-22608).
      - i. This id **SHALL** contain exactly one [1..1] **@root** (CONF:5566-22609).
6. **SHALL** contain exactly one [1..1] **component** (CONF:5566-22610).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:5566-22611).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-22612) such that it
      1. **SHALL** contain exactly one [1..1] [Findings Section in a LIO Report \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.46:2014-12-01) (CONF:5566-30420).
    - ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-22614) such that it
      1. **SHALL** contain exactly one [1..1] [Encounters Section in a LIO Report \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.44:2014-12-01) (CONF:5566-30421).

### 1.1.19 HAI Procedure Denominator Report (V7)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.35.2:2025-05-01 (closed)]

Draft as part of NHSN Healthcare Associated Infection Reports Release 4, STU 4 - US Realm

**Table 49: HAI Procedure Denominator Report (V7) Contexts**

Contained By:	Contains:
	<a href="#">Infection Risk Factors Section in a Procedure Report</a> (required) <a href="#">Procedure Details Section in a Procedure Report (V2)</a> (required)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report records a procedure performed.

Preferred document title: “Denominator for Procedure Report”

Key encounter data:

- The encounter type (inpatient or outpatient) is required.
- If the patient was an inpatient, a value for admission date is required.

- The facility id is required. Unit identifier and unit type are not reported.

Other dates and locations:

- The date of the procedure is recorded as effectiveTime in the Procedure Details Clinical Statement in a Procedure Report (V2).

Other notes: The procedure id is recorded in the Procedure Details Clinical Statement in a Procedure Report (V2). NHSN uses this to establish a link between Procedure and SSI Reports.

**Table 50: HAI Procedure Denominator Report (V7) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.35.2:2025-05-01)					
templateId	1..1	SHALL		<a href="#">5566-30309</a>	
@root	1..1	SHALL		<a href="#">5566-30310</a>	2.16.840.1.113883.10.20.5.7.4.4
templateId	1..1	SHALL		<a href="#">5566-22531</a>	
@root	1..1	SHALL		<a href="#">5566-30255</a>	2.16.840.1.113883.10.20.5.35.2
@extension	1..1	SHALL		<a href="#">5566-31027</a>	2025-05-01
title	1..1	SHALL		<a href="#">5566-30315</a>	
componentOf	1..1	SHALL		<a href="#">5566-22533</a>	
encompassingEncounter	1..1	SHALL		<a href="#">5566-22534</a>	
code	1..1	SHALL		<a href="#">5566-22535</a>	urn:oid:2.16.840.1.113883.13.1 (NHSNEncounterTypeCode)
location	1..1	SHALL		<a href="#">5566-22537</a>	
healthCareFacility	1..1	SHALL		<a href="#">5566-22538</a>	
id	1..1	SHALL		<a href="#">5566-22539</a>	
@root	1..1	SHALL		<a href="#">5566-22540</a>	
@extension	0..1	MAY		<a href="#">5566-22541</a>	
code	0..1	MAY		<a href="#">5566-22542</a>	urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode)
component	1..1	SHALL		<a href="#">5566-22545</a>	
structuredBody	1..1	SHALL		<a href="#">5566-22546</a>	
component	1..1	SHALL		<a href="#">5566-22547</a>	
section	1..1	SHALL		<a href="#">5566-30256</a>	<a href="#">Procedure Details Section in a Procedure Report (V2)</a> (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.20.5.5.43.2</a> )

XPath	Card.	Verb	Data Type	CONF#	Value
component	1..1	SHALL		<a href="#">5566-22551</a>	
section	1..1	SHALL		<a href="#">5566-22552</a>	<a href="#">Infection Risk Factors Section in a Procedure Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.35)</a>

1. Conforms to [HAI Single-Person Report Generic Constraints \(V6\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-30309) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30310).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-22531) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.35.2" (CONF:5566-30255).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-31027).

Preferred document title: "Denominator for Procedure Report"

4. **SHALL** contain exactly one [1..1] **title** (CONF:5566-30315).
5. **SHALL** contain exactly one [1..1] **componentOf** (CONF:5566-22533).
  - a. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:5566-22534).
    - i. This encompassingEncounter **SHALL** contain exactly one [1..1] **code** (ValueSet: [NHSNEncounterTypeCode](#) urn:oid:2.16.840.1.113883.13.1 DYNAMIC) (CONF:5566-22535).
    - ii. This encompassingEncounter **SHALL** contain exactly one [1..1] **location** (CONF:5566-22537).
      1. This location **SHALL** contain exactly one [1..1] **healthCareFacility** (CONF:5566-22538).
        - a. This healthCareFacility **SHALL** contain exactly one [1..1] **id** (CONF:5566-22539).

The value of **@root** must be the NHSN assigned Facility OID.

- i. This id **SHALL** contain exactly one [1..1] **@root** (CONF:5566-22540).

The value of **@extension**, if supplied, must be a value registered with NHSN.

- ii. This id **MAY** contain zero or one [0..1] **@extension** (CONF:5566-22541).
- b. This healthCareFacility **MAY** contain zero or one [0..1] **code**, which **SHALL** be selected from ValueSet [NHSNHealthcareServiceLocationCode](#)

urn:oid:2.16.840.1.113883.13.19 **DYNAMIC** (CONF:5566-22542).

- iii. If the patient is an inpatient (code/@code='IMP'), admission date is recorded: An effectiveTime element **SHALL** be present. This effectiveTime **SHALL** [1..1] contain a low element. This low element **SHALL** [1..1] contain @value (CONF:5566-22544).

6. **SHALL** contain exactly one [1..1] **component** (CONF:5566-22545).

a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:5566-22546).

i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-22547) such that it

1. **SHALL** contain exactly one [1..1] [Procedure Details Section in a Procedure Report \(V2\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.43.2) (CONF:5566-30256).

ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-22551) such that it

1. **SHALL** contain exactly one [1..1] [Infection Risk Factors Section in a Procedure Report](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.35) (CONF:5566-22552).

### 1.1.20 HAI Surgical Site Infection Report (SSI) (V8)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.33.2:2025-05-01 (closed)]

Draft as part of NHSN Healthcare Associated Infection Reports Release 4, STU 4 - US Realm

**Table 51: HAI Surgical Site Infection Report (SSI) (V8) Contexts**

Contained By:	Contains:
	<a href="#">Findings Section in an Infection-Type Report</a> (required) <a href="#">Infection Details Section in an SSI Report (V2)</a> (required) <a href="#">COVID-19 Section (V2)</a> (required)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report type records a surgical site infection event.

Preferred document title: “Surgical Site Infection Report (SSI)”.

Key encounter data:

- The encounter type (inpatient or outpatient) is required.
- A value for admission date is required.
- A discharge date may be recorded.
- The facility id is required.

Other dates and locations:

- The date of the infection is recorded as effectiveTime in the Infection-Type Observation.

Other notes: The procedure id is recorded in the Procedure Details Clinical Statement in an Infection-Type Report. NHSN uses this to establish a link between Procedure and SSI Reports.

**Table 52: HAI Surgical Site Infection Report (SSI) (V8) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.33.2:2025-05-01)					
templateId	1..1	SHALL		<a href="#">5566-30311</a>	
@root	1..1	SHALL		<a href="#">5566-30312</a>	2.16.840.1.113883.10.20.5.7.4.4
templateId	1..1	SHALL		<a href="#">5566-22484</a>	
@root	1..1	SHALL		<a href="#">5566-30276</a>	2.16.840.1.113883.10.20.5.33.2
@extension	0..1	SHALL		<a href="#">5566-30868</a>	2025-05-01
title	1..1	SHALL		<a href="#">5566-30316</a>	
componentOf	1..1	SHALL		<a href="#">5566-22486</a>	
encompassingEncounter	1..1	SHALL		<a href="#">5566-22487</a>	
code	1..1	SHALL		<a href="#">5566-22488</a>	urn:oid:2.16.840.1.113883.13.1 (NHSNEncounterTypeCode)
effectiveTime	1..1	SHALL		<a href="#">5566-22490</a>	
low	1..1	SHALL		<a href="#">5566-27762</a>	
@value	1..1	SHALL		<a href="#">5566-27763</a>	
high	0..1	MAY		<a href="#">5566-22491</a>	
@value	1..1	SHALL		<a href="#">5566-22492</a>	
location	1..1	SHALL		<a href="#">5566-22493</a>	
healthCareFacility	1..1	SHALL		<a href="#">5566-22494</a>	
id	1..1	SHALL		<a href="#">5566-22495</a>	
@root	1..1	SHALL		<a href="#">5566-22496</a>	
@extension	0..1	MAY		<a href="#">5566-22497</a>	
code	0..1	MAY		<a href="#">5566-22498</a>	urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode)
component	1..1	SHALL		<a href="#">5566-</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
				<a href="#">22501</a>	
structuredBody	1..1	SHALL		<a href="#">5566-22502</a>	
component	1..1	SHALL		<a href="#">5566-22503</a>	
section	1..1	SHALL		<a href="#">5566-22504</a>	<a href="#">Infection Details Section in an SSI Report (V2) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.39.2)</a>
component	1..1	SHALL		<a href="#">5566-30869</a>	
section	1..1	SHALL		<a href="#">5566-30870</a>	<a href="#">COVID-19 Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01)</a>
component	1..1	SHALL		<a href="#">5566-22505</a>	
section	1..1	SHALL		<a href="#">5566-22506</a>	<a href="#">Findings Section in an Infection-Type Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45)</a>

1. Conforms to [HAI Single-Person Report Generic Constraints \(V6\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-30311) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30312).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-22484) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.33.2" (CONF:5566-30276).
  - b. **SHALL** contain zero or one [0..1] **@extension**="2025-05-01" (CONF:5566-30868).

Preferred document title: "Surgical Site Infection Report (SSI)".

4. **SHALL** contain exactly one [1..1] **title** (CONF:5566-30316).
5. **SHALL** contain exactly one [1..1] **componentOf** (CONF:5566-22486).
  - a. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:5566-22487).
    - i. This encompassingEncounter **SHALL** contain exactly one [1..1] **code** (ValueSet: [NHSNEncounterTypeCode](#) urn:oid:2.16.840.1.113883.13.1 **DYNAMIC**) (CONF:5566-22488).
    - ii. This encompassingEncounter **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5566-22490).



1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:5566-27762).
  - a. This low **SHALL** contain exactly one [1..1] **@value** (CONF:5566-27763).  
Note: Admission Date
2. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:5566-22491).
  - a. The high, if present, **SHALL** contain exactly one [1..1] **@value** (CONF:5566-22492).  
Note: Discharge Date
- iii. This encompassingEncounter **SHALL** contain exactly one [1..1] **location** (CONF:5566-22493).
  1. This location **SHALL** contain exactly one [1..1] **healthCareFacility** (CONF:5566-22494).
    - a. This healthCareFacility **SHALL** contain exactly one [1..1] **id** (CONF:5566-22495).

The value of @root must be the NHSN assigned Facility OID.

- i. This id **SHALL** contain exactly one [1..1] **@root** (CONF:5566-22496).

The value of @extension, if supplied, must be a value registered with NHSN.

- ii. This id **MAY** contain zero or one [0..1] **@extension** (CONF:5566-22497).
  - b. This healthCareFacility **MAY** contain zero or one [0..1] **code** (ValueSet: [NHSNHealthcareServiceLocationCode](#) urn:oid:2.16.840.1.113883.13.19 **DYNAMIC**) (CONF:5566-22498).
6. **SHALL** contain exactly one [1..1] **component** (CONF:5566-22501).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:5566-22502).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-22503) such that it
      1. **SHALL** contain exactly one [1..1] [Infection Details Section in an SSI Report \(V2\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.39.2) (CONF:5566-22504).
    - ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-30869) such that it
      1. **SHALL** contain exactly one [1..1] [COVID-19 Section \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01) (CONF:5566-30870).
    - iii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-22505) such that it

1. **SHALL** contain exactly one [1..1] [Findings Section in an Infection-Type Report](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45) (CONF:5566-22506).

### 1.1.21 HAI Urinary Tract Infection Numerator Report (UTI) (V7)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.34:2025-05-01 (closed)]

Draft as part of NHSN Healthcare Associated Infection Reports Release 4, STU 4 - US Realm

**Table 53: HAI Urinary Tract Infection Numerator Report (UTI) (V7) Contexts**

Contained By:	Contains:
	<a href="#">Infection Details Section in a UTI Report</a> (required) <a href="#">Findings Section in an Infection-Type Report</a> (required) <a href="#">COVID-19 Section (V2)</a> (required) <a href="#">Infection Risk Factors Section in a UTI Report (V2)</a> (required)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report records a urinary tract infection event.

Preferred document title: “Urinary Infection Report (UTI)”

Key encounter data:

- A value for admission date is required.
- A discharge date may be recorded.
- The facility id, unit identifier, and unit type are required.

Other dates and locations:

- The date of the infection is recorded as effectiveTime in the Infection-Type Observation.

**Table 54: HAI Urinary Tract Infection Numerator Report (UTI) (V7) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.34:2025-05-01)					
templateId	1..1	SHALL		<a href="#">5566-28319</a>	
@root	1..1	SHALL		<a href="#">5566-28320</a>	2.16.840.1.113883.10.20.5.7.4.4
templateId	1..1	SHALL		<a href="#">5566-22507</a>	
@root	1..1	SHALL		<a href="#">5566-27433</a>	2.16.840.1.113883.10.20.5.34
@extension	1..1	SHALL		<a href="#">5566-30873</a>	2025-05-01
title	1..1	SHALL		<a href="#">5566-28408</a>	
componentOf	1..1	SHALL		<a href="#">5566-22509</a>	
encompassingEncounter	1..1	SHALL		<a href="#">5566-22510</a>	
effectiveTime	1..1	SHALL		<a href="#">5566-22511</a>	
low	1..1	SHALL		<a href="#">5566-22512</a>	
@value	1..1	SHALL		<a href="#">5566-22513</a>	
high	0..1	MAY		<a href="#">5566-22514</a>	
@value	1..1	SHALL		<a href="#">5566-22515</a>	
location	1..1	SHALL		<a href="#">5566-22516</a>	
healthCareFacility	1..1	SHALL		<a href="#">5566-22517</a>	
id	1..1	SHALL		<a href="#">5566-22518</a>	
@root	1..1	SHALL		<a href="#">5566-22519</a>	
@extension	1..1	SHALL		<a href="#">5566-22520</a>	
code	1..1	SHALL		<a href="#">5566-22521</a>	urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode)
component	1..1	SHALL		<a href="#">5566-22523</a>	
structuredBody	1..1	SHALL		<a href="#">5566-</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
				<a href="#">22524</a>	
component	1..1	SHALL		<a href="#">5566-22525</a>	
section	1..1	SHALL		<a href="#">5566-22526</a>	<a href="#">Infection Risk Factors Section in a UTI Report (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.36:2025-05-01)</a>
component	1..1	SHALL		<a href="#">5566-30871</a>	
section	1..1	SHALL		<a href="#">5566-30872</a>	<a href="#">COVID-19 Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01)</a>
component	1..1	SHALL		<a href="#">5566-22527</a>	
section	1..1	SHALL		<a href="#">5566-22528</a>	<a href="#">Infection Details Section in a UTI Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.40)</a>
component	1..1	SHALL		<a href="#">5566-22529</a>	
section	1..1	SHALL		<a href="#">5566-22530</a>	<a href="#">Findings Section in an Infection-Type Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45)</a>

1. Conforms to [HAI Single-Person Report Generic Constraints \(V6\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-28319) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-28320).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-22507) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.34" (CONF:5566-27433).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-30873).

Preferred document title: "Urinary Infection Report (UTI)"

4. **SHALL** contain exactly one [1..1] **title** (CONF:5566-28408).
5. **SHALL** contain exactly one [1..1] **componentOf** (CONF:5566-22509).
  - a. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:5566-22510).
    - i. This encompassingEncounter **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5566-22511).

1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:5566-22512).
  - a. This low **SHALL** contain exactly one [1..1] **@value** (CONF:5566-22513).  
Note: Admission Date
2. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:5566-22514).
  - a. The high, if present, **SHALL** contain exactly one [1..1] **@value** (CONF:5566-22515).  
Note: Discharge Date
3. The value of the admission date **SHALL NOT** be earlier than January 1, 1986; **SHALL NOT** be earlier than the date of birth; and **SHALL NOT** be later than the event date (CONF:5566-23362).
- ii. This encompassingEncounter **SHALL** contain exactly one [1..1] **location** (CONF:5566-22516).
  1. This location **SHALL** contain exactly one [1..1] **healthCareFacility** (CONF:5566-22517).
    - a. This healthCareFacility **SHALL** contain exactly one [1..1] **id** (CONF:5566-22518).
      - i. This id **SHALL** contain exactly one [1..1] **@root** (CONF:5566-22519).

The value of healthCareFacility/id/@extension must be a value previously registered with NHSN.

- ii. This id **SHALL** contain exactly one [1..1] **@extension** (CONF:5566-22520).
  - b. This healthCareFacility **SHALL** contain exactly one [1..1] **code** (ValueSet: [NHSNHealthcareServiceLocationCode](#) urn:oid:2.16.840.1.113883.13.19 **DYNAMIC**) (CONF:5566-22521).
6. **SHALL** contain exactly one [1..1] **component** (CONF:5566-22523).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:5566-22524).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-22525) such that it
      1. **SHALL** contain exactly one [1..1] [Infection Risk Factors Section in a UTI Report \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.36:2025-05-01) (CONF:5566-22526).
    - ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-30871) such that it
      1. **SHALL** contain exactly one [1..1] [COVID-19 Section \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01) (CONF:5566-30872).

- iii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-22527) such that it
  1. **SHALL** contain exactly one [1..1] [Infection Details Section in a UTI Report](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.40) (CONF:5566-22528).
- iv. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-22529) such that it
  1. **SHALL** contain exactly one [1..1] [Findings Section in an Infection-Type Report](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45) (CONF:5566-22530).

### 1.1.22 Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report (V6)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.58:2025-05-01 (closed)]

Draft as part of NHSN Healthcare Associated Infection Reports Release 4, STU 4 - US Realm

**Table 55: Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report (V6) Contexts**

Contained By:	Contains:
	<a href="#">NHSN Comment Section</a> (optional) <a href="#">Encounters Section in a LOS/Men Denominator</a> (required) <a href="#">Risk Factors Section in a LOS/Men Denominator</a> (required)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report records the denominator information for neonatal component late onset sepsis and meningitis (LOS/Men).

Preferred document title: “Late Onset Sepsis/Meningitis Denominator”.

Key required data:

- the facility id
- the month and year the data were collected
- the date admitted to the facility
- the date admitted or transferred to the location within the facility
- if discharged, transferred or expired, the date on which this occurred

**Table 56: Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.58:2025-05-01)					
templateId	1..1	SHALL		<a href="#">5566-30685</a>	
@root	1..1	SHALL		<a href="#">5566-30703</a>	2.16.840.1.113883.10.20.5.7.4.4
templateId	1..1	SHALL		<a href="#">5566-30702</a>	
@root	1..1	SHALL		<a href="#">5566-30710</a>	2.16.840.1.113883.10.20.5.58
@extension	1..1	SHALL		<a href="#">5566-30711</a>	2025-05-01
title	1..1	SHALL		<a href="#">5566-30712</a>	
recordTarget	1..*	SHALL		<a href="#">5566-30716</a>	
patientRole	1..1	SHALL		<a href="#">5566-30717</a>	
patient	0..1	MAY		<a href="#">5566-30718</a>	
documentationOf	1..1	SHALL		<a href="#">5566-30942</a>	
serviceEvent	1..1	SHALL		<a href="#">5566-30943</a>	
effectiveTime	1..1	SHALL		<a href="#">5566-30944</a>	
low	1..1	SHALL		<a href="#">5566-30945</a>	
high	1..1	SHALL		<a href="#">5566-30946</a>	
componentOf	1..1	SHALL		<a href="#">5566-30686</a>	
encompassingEncounter	1..1	SHALL		<a href="#">5566-30687</a>	
code	1..1	SHALL		<a href="#">5566-30691</a>	
@code	1..1	SHALL		<a href="#">5566-30707</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = IMP
@codeSystem	1..1	SHALL		<a href="#">5566-30708</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
effectiveTime	1..1	SHALL		<a href="#">5566-30692</a>	
low	1..1	SHALL		<a href="#">5566-</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
				<a href="#">30693</a>	
@value	1..1	SHALL		<a href="#">5566-30709</a>	
location	1..1	SHALL		<a href="#">5566-30688</a>	
healthCareFacility	1..1	SHALL		<a href="#">5566-30689</a>	
id	1..1	SHALL		<a href="#">5566-30690</a>	
@root	1..1	SHALL		<a href="#">5566-30704</a>	
@extension	0..1	MAY		<a href="#">5566-30705</a>	
component	1..1	SHALL		<a href="#">5566-30694</a>	
structuredBody	1..1	SHALL		<a href="#">5566-30695</a>	
component	1..1	SHALL		<a href="#">5566-30696</a>	
section	1..1	SHALL		<a href="#">5566-30697</a>	<a href="#">Risk Factors Section in a LOS/Men Denominator (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.72:2019-04-01)</a>
component	1..1	SHALL		<a href="#">5566-30821</a>	
section	1..1	SHALL		<a href="#">5566-31031</a>	<a href="#">Encounters Section in a LOS/Men Denominator (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.71:2019-04-01)</a>
component	0..1	MAY		<a href="#">5566-30700</a>	
section	1..1	SHALL		<a href="#">5566-30701</a>	<a href="#">NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01)</a>

1. Conforms to [HAI Single-Person Report Generic Constraints \(V6\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-30685) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30703).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-30702) such that it



- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.58" (CONF:5566-30710).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-30711).
- Preferred document title: "Late Onset Sepsis/Meningitis Denominator"
- 4. **SHALL** contain exactly one [1..1] **title** (CONF:5566-30712).
  - 5. **SHALL** contain at least one [1..\*] **recordTarget** (CONF:5566-30716).
    - a. Such recordTargets **SHALL** contain exactly one [1..1] **patientRole** (CONF:5566-30717).
      - i. This patientRole **MAY** contain zero or one [0..1] **patient** (CONF:5566-30718).
  - 6. **SHALL** contain exactly one [1..1] **documentationOf** (CONF:5566-30942).
    - a. This documentationOf **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:5566-30943).
      - i. This serviceEvent **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5566-30944).
 

Note: Month and year the data were collected

        - 1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:5566-30945).
 

Note: First day of the period reported
        - 2. This effectiveTime **SHALL** contain exactly one [1..1] **high** (CONF:5566-30946).
 

Note: Last day of the period reported
  - 7. **SHALL** contain exactly one [1..1] **componentOf** (CONF:5566-30686).
    - a. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:5566-30687).
      - i. This encompassingEncounter **SHALL** contain exactly one [1..1] **code** (CONF:5566-30691).
        - 1. This code **SHALL** contain exactly one [1..1] **@code**="IMP" Inpatient encounter (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:5566-30707).
        - 2. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:5566-30708).
      - ii. This encompassingEncounter **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5566-30692).
        - 1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:5566-30693).
 

Note: Date admitted to facility

          - a. This low **SHALL** contain exactly one [1..1] **@value** (CONF:5566-30709).
 

Note: Admission Date
      - iii. This encompassingEncounter **SHALL** contain exactly one [1..1] **location** (CONF:5566-30688).

1. This location **SHALL** contain exactly one [1..1] **healthCareFacility** (CONF:5566-30689).
  - a. This healthCareFacility **SHALL** contain exactly one [1..1] **id** (CONF:5566-30690).  
Note: Facility ID

The value of @root must be the NHSN assigned Facility OID.

- i. This id **SHALL** contain exactly one [1..1] **@root** (CONF:5566-30704).

The value of @extension, if supplied, must be a value registered with NHSN.

- ii. This id **MAY** contain zero or one [0..1] **@extension** (CONF:5566-30705).

8. **SHALL** contain exactly one [1..1] **component** (CONF:5566-30694).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:5566-30695).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-30696) such that it
      1. **SHALL** contain exactly one [1..1] [Risk Factors Section in a LOS/Men Denominator](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.72:2019-04-01) (CONF:5566-30697).
    - ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-30821) such that it
      1. **SHALL** contain exactly one [1..1] [Encounters Section in a LOS/Men Denominator](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.71:2019-04-01) (CONF:5566-31031).
    - iii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:5566-30700) such that it
      1. **SHALL** contain exactly one [1..1] [NHSN Comment Section](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01) (CONF:5566-30701).

### 1.1.23 Late Onset Sepsis/Meningitis Event (LOS) Report (V7)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.53:2025-05-01 (closed)]

Draft as part of NHSN Healthcare Associated Infection Reports Release 4, STU 4 - US Realm

**Table 57: Late Onset Sepsis/Meningitis Event (LOS) Report (V7) Contexts**

Contained By:	Contains:
	<a href="#">Findings Section in an Infection-Type Report</a> (optional) <a href="#">NHSN Comment Section</a> (required)

Contained By:	Contains:
	<a href="#">Infection Details in Late Onset Sepsis Report</a> (required) <a href="#">Risk Factors Section in a LOS/Men Event (V2)</a> (required)

This report type records a late onset sepsis/meningitis infection event.

Preferred document title: "Late Onset Sepsis/Meningitis Event (LOS)".

For Late Onset Sepsis/Meningitis Event Reports, a Medicaid beneficiary number may be present.

**Table 58: Late Onset Sepsis/Meningitis Event (LOS) Report (V7) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.53:2025-05-01)					
templateId	1..1	SHALL		<a href="#">5566-30728</a>	
@root	1..1	SHALL		<a href="#">5566-30745</a>	2.16.840.1.113883.10.20.5.7.4.4
templateId	1..1	SHALL		<a href="#">5566-30962</a>	
@root	1..1	SHALL		<a href="#">5566-30972</a>	2.16.840.1.113883.10.20.5.53
@extension	1..1	SHALL		<a href="#">5566-30973</a>	2025-05-01
title	1..1	SHALL		<a href="#">5566-30729</a>	
recordTarget	1..1	SHALL		<a href="#">5566-30963</a>	
patientRole	1..1	SHALL		<a href="#">5566-30964</a>	
id	0..1	MAY		<a href="#">5566-30965</a>	
@root	1..1	SHALL		<a href="#">5566-30974</a>	2.16.840.1.113883.10.20.5.9.28
@extension	1..1	SHALL		<a href="#">5566-30975</a>	
componentOf	1..1	SHALL		<a href="#">5566-30730</a>	
encompassingEncounter	1..1	SHALL		<a href="#">5566-30731</a>	
effectiveTime	1..1	SHALL		<a href="#">5566-30954</a>	
low	1..1	SHALL		<a href="#">5566-30966</a>	
high	0..1	MAY		<a href="#">5566-30967</a>	
location	1..1	SHALL		<a href="#">5566-30955</a>	
healthCareFacility	1..1	SHALL		<a href="#">5566-30956</a>	
id	1..1	SHALL		<a href="#">5566-30957</a>	
@root	1..1	SHALL		<a href="#">5566-30968</a>	
@extension	1..1	SHALL		<a href="#">5566-30969</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
code	1..1	SHALL		<a href="#">5566-30970</a>	urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode)
component	1..1	SHALL		<a href="#">5566-30747</a>	
structuredBody	1..1	SHALL		<a href="#">5566-30748</a>	
component	1..1	SHALL		<a href="#">5566-30749</a>	
section	1..1	SHALL		<a href="#">5566-30750</a>	<a href="#">Infection Details in Late Onset Sepsis Report (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.64:2018-04-01)</a>
component	1..1	SHALL		<a href="#">5566-30751</a>	
section	1..1	SHALL		<a href="#">5566-30752</a>	<a href="#">Risk Factors Section in a LOS/Men Event (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.65:2019-04-01)</a>
component	0..1	MAY		<a href="#">5566-30958</a>	
section	1..1	SHALL		<a href="#">5566-30959</a>	<a href="#">Findings Section in an Infection-Type Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45)</a>
component	1..1	SHALL		<a href="#">5566-30960</a>	
section	1..1	SHALL		<a href="#">5566-30961</a>	<a href="#">NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01)</a>

1. Conforms to [HAI Single-Person Report Generic Constraints \(V6\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-30728) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30745).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-30962) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.53" (CONF:5566-30972).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-30973).

Preferred document title: "Late Onset Sepsis/Meningitis Event (LOS) Report"

4. **SHALL** contain exactly one [1..1] **title** (CONF:5566-30729).
5. **SHALL** contain exactly one [1..1] **recordTarget** (CONF:5566-30963).
  - a. This recordTarget **SHALL** contain exactly one [1..1] **patientRole** (CONF:5566-30964).

For Late Onset Sepsis/Meningitis Event Reports, a Medicaid beneficiary number may be present.

- i. This patientRole **MAY** contain zero or one [0..1] **id** (CONF:5566-30965) such that it
    1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.9.28" (CONF:5566-30974).  
Note: Specifies that this is a Medicaid beneficiary number
    2. **SHALL** contain exactly one [1..1] **@extension** (CONF:5566-30975).  
Note: Medicaid beneficiary number
6. **SHALL** contain exactly one [1..1] **componentOf** (CONF:5566-30730).
  - a. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:5566-30731).
    - i. This encompassingEncounter **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5566-30954).
      1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:5566-30966).  
Note: Admission Date
      2. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:5566-30967).  
Note: Discharge Date
    - ii. This encompassingEncounter **SHALL** contain exactly one [1..1] **location** (CONF:5566-30955).
      1. This location **SHALL** contain exactly one [1..1] **healthCareFacility** (CONF:5566-30956).
        - a. This healthCareFacility **SHALL** contain exactly one [1..1] **id** (CONF:5566-30957).

The value of **@root** must be the NHSN assigned Facility OID

- i. This id **SHALL** contain exactly one [1..1] **@root** (CONF:5566-30968).

The value of **@extension** must be a value registered with NHSN

- ii. This id **SHALL** contain exactly one [1..1] **@extension** (CONF:5566-30969).
    - b. This healthCareFacility **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNHealthcareServiceLocationCode](#)  
**urn:oid:2.16.840.1.113883.13.19 DYNAMIC** (CONF:5566-30970).
7. **SHALL** contain exactly one [1..1] **component** (CONF:5566-30747).

- a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:5566-30748).
  - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-30749) such that it
    1. **SHALL** contain exactly one [1..1] [Infection Details in Late Onset Sepsis Report](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.64:2018-04-01) (CONF:5566-30750).
  - ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-30751) such that it
    1. **SHALL** contain exactly one [1..1] [Risk Factors Section in a LOS/Men Event \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.65:2019-04-01) (CONF:5566-30752).
  - iii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:5566-30958) such that it
    1. **SHALL** contain exactly one [1..1] [Findings Section in an Infection-Type Report](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45) (CONF:5566-30959).
  - iv. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-30960) such that it
    1. **SHALL** contain exactly one [1..1] [NHSN Comment Section](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01) (CONF:5566-30961).

#### 1.1.24 Outpatient Procedure Component Same Day Outcome Measures Event Report (V6)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.54:2025-05-01 (closed)]

Draft as part of NHSN Healthcare Associated Infection Reports Release 4, STU 4 - US Realm

**Table 59: Outpatient Procedure Component Same Day Outcome Measures Event Report (V6) Contexts**

Contained By:	Contains:
	<a href="#">NHSN Comment Section</a> (optional) <a href="#">Same Day Outcome Measures Event Details Section</a> (required)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report type records data on each patient who experienced one or more of the same day outcome measures events.

Preferred document title: “Outpatient Procedure Component Same Day Outcome Measures Event Report”.

Key encounter data:

- The encounter type (outpatient) is required.
- The facility id is required.
- A value for the date admitted to facility where the outpatient procedure occurred is required.



**Table 60: Outpatient Procedure Component Same Day Outcome Measures Event Report (V6)  
Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.54:2025-05-01)					
templateId	1..1	SHALL		<a href="#">5566-1</a>	
@root	1..1	SHALL		<a href="#">5566-30992</a>	2.16.840.1.113883.10.20.5.7.4.4
templateId	1..1	SHALL		<a href="#">5566-30991</a>	
@root	1..1	SHALL		<a href="#">5566-26</a>	2.16.840.1.113883.10.20.5.54
@extension	1..1	SHALL		<a href="#">5566-27</a>	2025-05-01
title	1..1	SHALL		<a href="#">5566-70</a>	
componentOf	1..1	SHALL		<a href="#">5566-2</a>	
encompassingEncounter	1..1	SHALL		<a href="#">5566-30985</a>	
code	1..1	SHALL		<a href="#">5566-30987</a>	
@code	1..1	SHALL		<a href="#">5566-24</a>	AMB
@codeSystem	1..1	SHALL		<a href="#">5566-25</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
effectiveTime	1..1	SHALL		<a href="#">5566-30986</a>	
low	1..1	SHALL		<a href="#">5566-5</a>	
@value	1..1	SHALL		<a href="#">5566-30993</a>	
location	1..1	SHALL		<a href="#">5566-6</a>	
healthCareFacility	1..1	SHALL		<a href="#">5566-7</a>	
id	1..1	SHALL		<a href="#">5566-8</a>	
@root	1..1	SHALL		<a href="#">5566-21</a>	
component	1..1	SHALL		<a href="#">5566-30988</a>	
structuredBody	1..1	SHALL		<a href="#">5566-30989</a>	
component	1..1	SHALL		<a href="#">5566-30990</a>	
section	1..1	SHALL		<a href="#">5566-13</a>	<a href="#">Same Day Outcome Measures Event Details Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.66:2019-04-01)</a>
component	0..1	MAY		<a href="#">5566-30561</a>	
section	1..1	SHALL		<a href="#">5566-</a>	<a href="#">NHSN Comment Section (identifier:</a>

XPath	Card.	Verb	Data Type	CONF#	Value
				<a href="#">30562</a>	<a href="#">urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01</a>

1. Conforms to [HAI Single-Person Report Generic Constraints \(V6\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-1) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30992).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-30991) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.54" (CONF:5566-26).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-27).

Preferred document title: "Outpatient Procedure Component Same Day Outcome Measures Event Report".

4. **SHALL** contain exactly one [1..1] **title** (CONF:5566-70).
5. **SHALL** contain exactly one [1..1] **componentOf** (CONF:5566-2).
  - a. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:5566-30985).
    - i. This encompassingEncounter **SHALL** contain exactly one [1..1] **code** (CONF:5566-30987).
      1. This code **SHALL** contain exactly one [1..1] **@code**="AMB" Outpatient (CONF:5566-24).
      2. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:5566-25).
    - ii. This encompassingEncounter **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5566-30986).
      1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:5566-5).
        - a. This low **SHALL** contain exactly one [1..1] **@value** (CONF:5566-30993).  
Note: Admission Date
    - iii. This encompassingEncounter **SHALL** contain exactly one [1..1] **location** (CONF:5566-6).
      1. This location **SHALL** contain exactly one [1..1] **healthCareFacility** (CONF:5566-7).
        - a. This healthCareFacility **SHALL** contain exactly one [1..1] **id** (CONF:5566-8).

The value of **@root** must be the NHSN assigned Facility OID.

- i. This id **SHALL** contain exactly one [1..1] @root (CONF:5566-21).
6. **SHALL** contain exactly one [1..1] **component** (CONF:5566-30988).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:5566-30989).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-30990) such that it
      1. **SHALL** contain exactly one [1..1] [Same Day Outcome Measures Event Details Section](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.66:2019-04-01) (CONF:5566-13).
    - ii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:5566-30561) such that it
      1. **SHALL** contain exactly one [1..1] [NHSN Comment Section](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01) (CONF:5566-30562).

### 1.1.25 Outpatient Procedure Surgical Site Infection (SSI) Event Report (V6)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.57:2025-05-01 (closed)]

Draft as part of NHSN Healthcare Associated Infection Reports Release 4, STU 4 - US Realm

**Table 61: Outpatient Procedure Surgical Site Infection (SSI) Event Report (V6) Contexts**

Contained By:	Contains:
	<a href="#">NHSN Comment Section</a> (optional) <a href="#">Infection Details Section in an OPC SSI Report</a> (required) <a href="#">Findings Section in an OPC SSI Report</a> (required)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report type records surgical site infection events for outpatient procedure.

Preferred document title: “Outpatient Procedure Surgical Site Infection (SSI) Event”.

Key encounter data:

- The encounter type (outpatient) is required.
- The facility id is required.
- A value for the date admitted to facility where the outpatient procedure occurred is required.

Other dates and locations:

- The date of the infection is recorded as effectiveTime in the Infection-Type Observation.

Other notes: The procedure id is recorded in the id of the Procedure Details in an OPC SSI Event template. NHSN uses this to establish a link between OPC Procedure for Denominator and OPC SSI Reports.

**Table 62: Outpatient Procedure Surgical Site Infection (SSI) Event Report (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.57:2025-05-01)					
templateId	1..1	SHALL		<a href="#">5566-28</a>	
@root	1..1	SHALL		<a href="#">5566-46</a>	2.16.840.1.113883.10.20.5.7.4.4
templateId	1..1	SHALL		<a href="#">5566-45</a>	
@root	1..1	SHALL		<a href="#">5566-53</a>	2.16.840.1.113883.10.20.5.57
@extension	1..1	SHALL		<a href="#">5566-54</a>	2025-05-01
title	1..1	SHALL		<a href="#">5566-71</a>	
componentOf	1..1	SHALL		<a href="#">5566-29</a>	
encompassingEncounter	1..1	SHALL		<a href="#">5566-30</a>	
code	1..1	SHALL		<a href="#">5566-36</a>	
@code	1..1	SHALL		<a href="#">5566-51</a>	AMB
@codeSystem	1..1	SHALL		<a href="#">5566-52</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
effectiveTime	1..1	SHALL		<a href="#">5566-31</a>	
low	1..1	SHALL		<a href="#">5566-32</a>	
@value	1..1	SHALL		<a href="#">5566-47</a>	
location	1..1	SHALL		<a href="#">5566-33</a>	
healthCareFacility	1..1	SHALL		<a href="#">5566-34</a>	
id	1..1	SHALL		<a href="#">5566-35</a>	
@root	1..1	SHALL		<a href="#">5566-48</a>	
@extension	0..1	MAY		<a href="#">5566-49</a>	
component	1..1	SHALL		<a href="#">5566-37</a>	
structuredBody	1..1	SHALL		<a href="#">5566-38</a>	
component	1..1	SHALL		<a href="#">5566-39</a>	
section	1..1	SHALL		<a href="#">5566-40</a>	<a href="#">Infection Details Section in an OPC SSI Report (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.69:2019-04-01)</a>
component	1..1	SHALL		<a href="#">5566-41</a>	
section	1..1	SHALL		<a href="#">5566-42</a>	<a href="#">Findings Section in an OPC SSI Report (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.70:2019-04-01)</a>
component	0..1	MAY		<a href="#">5566-30940</a>	
section	1..1	SHALL		<a href="#">5566-30941</a>	<a href="#">NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.1</a>

XPath	Card.	Verb	Data Type	CONF#	Value
					<a href="#">0.20.5.5.61:2017-04-01</a>

1. Conforms to [HAI Single-Person Report Generic Constraints \(V6\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-28) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-46).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-45) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.57" (CONF:5566-53).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-54).

Preferred document title: "Outpatient Procedure Surgical Site Infection (SSI) Event".

4. **SHALL** contain exactly one [1..1] **title** (CONF:5566-71).
5. **SHALL** contain exactly one [1..1] **componentOf** (CONF:5566-29).
  - a. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:5566-30).
    - i. This encompassingEncounter **SHALL** contain exactly one [1..1] **code** (CONF:5566-36).
      1. This code **SHALL** contain exactly one [1..1] **@code**="AMB" Outpatient (CONF:5566-51).
      2. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:5566-52).

Date of Encounter: Record the date of the encounter (admission) at the outpatient procedure facility. Encounter is defined as the completion of the registration process for the procedure facility.

- ii. This encompassingEncounter **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5566-31).
  1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:5566-32).
    - a. This low **SHALL** contain exactly one [1..1] **@value** (CONF:5566-47).  
Note: Admission Date
- iii. This encompassingEncounter **SHALL** contain exactly one [1..1] **location** (CONF:5566-33).
  1. This location **SHALL** contain exactly one [1..1] **healthCareFacility** (CONF:5566-34).
    - a. This healthCareFacility **SHALL** contain exactly one [1..1] **id** (CONF:5566-35).

The value of @root must be the NHSN assigned Facility OID.

- i. This id **SHALL** contain exactly one [1..1] @root (CONF:5566-48).

The value of @extension, if supplied, must be a value registered with NHSN.

- ii. This id **MAY** contain zero or one [0..1] @extension (CONF:5566-49).

6. **SHALL** contain exactly one [1..1] **component** (CONF:5566-37).

a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:5566-38).

i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-39) such that it

1. **SHALL** contain exactly one [1..1] [Infection Details Section in an OPC SSI Report](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.69:2019-04-01) (CONF:5566-40).

ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-41) such that it

1. **SHALL** contain exactly one [1..1] [Findings Section in an OPC SSI Report](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.70:2019-04-01) (CONF:5566-42).

iii. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:5566-30940) such that it

1. **SHALL** contain exactly one [1..1] [NHSN Comment Section](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01) (CONF:5566-30941).

### 1.1.26 Ventilator Associated Event (VAE) Report (V7)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.51:2025-05-01 (closed)]

Draft as part of NHSN Healthcare Associated Infection Reports Release 4, STU 4 - US Realm

**Table 63: Ventilator Associated Event (VAE) Report (V7) Contexts**

Contained By:	Contains:
	<a href="#">Findings Section in an Infection-Type Report</a> (required) <a href="#">Infection Details Section in a VAE Report</a> (required) <a href="#">Risk Factors Section in a VAE Report</a> (required) <a href="#">NHSN Comment Section</a> (optional) <a href="#">COVID-19 Section (V2)</a> (required)

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report type records a ventilator associated infection event.

Preferred document title: “Ventilator Associated Event (VAE)”

Key encounter data:

- A value for admission date is required.
- A value for discharge date may be recorded.
- The facility id, unit identifier, and unit type are required.

Other dates and locations:

- The event date is recorded as effectiveTime in the Infection-Type Observation.

**Table 64: Ventilator Associated Event (VAE) Report (V7) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.51:2025-05-01)					
templateId	1..1	SHALL		<a href="#">5566-97</a>	
@root	1..1	SHALL		<a href="#">5566-113</a>	2.16.840.1.113883.10.20.5.7.4.4
templateId	1..1	SHALL		<a href="#">5566-111</a>	
@root	1..1	SHALL		<a href="#">5566-122</a>	2.16.840.1.113883.10.20.5.51
@extension	1..1	SHALL		<a href="#">5566-123</a>	2025-05-01
title	1..1	SHALL		<a href="#">5566-28469</a>	
componentOf	1..1	SHALL		<a href="#">5566-98</a>	
encompassingEncounter	1..1	SHALL		<a href="#">5566-99</a>	
effectiveTime	1..1	SHALL		<a href="#">5566-100</a>	
low	1..1	SHALL		<a href="#">5566-101</a>	
@value	1..1	SHALL		<a href="#">5566-114</a>	
high	0..1	MAY		<a href="#">5566-102</a>	
@value	1..1	SHALL		<a href="#">5566-115</a>	
location	1..1	SHALL		<a href="#">5566-103</a>	
healthCareFacility	1..1	SHALL		<a href="#">5566-104</a>	
id	1..1	SHALL		<a href="#">5566-105</a>	
@root	1..1	SHALL		<a href="#">5566-117</a>	
@extension	1..1	SHALL		<a href="#">5566-118</a>	
code	1..1	SHALL		<a href="#">5566-119</a>	urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode)
component	1..1	SHALL		<a href="#">5566-106</a>	
structuredBody	1..1	SHALL		<a href="#">5566-107</a>	
component	1..1	SHALL		<a href="#">5566-108</a>	
section	1..1	SHALL		<a href="#">5566-136</a>	<a href="#">Infection Details Section in a VAE Report (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.59:2017-04-01)</a>
component	1..1	SHALL		<a href="#">5566-30874</a>	
section	1..1	SHALL		<a href="#">5566-30875</a>	<a href="#">COVID-19 Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01)</a>
component	1..1	SHALL		<a href="#">5566-109</a>	
section	1..1	SHALL		<a href="#">5566-137</a>	<a href="#">Findings Section in an Infection-Type Report</a>



XPath	Card.	Verb	Data Type	CONF#	Value
					<a href="#">(identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45)</a>
component	1..1	SHALL		<a href="#">5566-110</a>	
section	1..1	SHALL		<a href="#">5566-171</a>	<a href="#">Risk Factors Section in a VAE Report (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.60:2017-04-01)</a>
component	0..1	MAY		<a href="#">5566-185</a>	
section	1..1	SHALL		<a href="#">5566-186</a>	<a href="#">NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01)</a>

1. Conforms to [HAI Single-Person Report Generic Constraints \(V6\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01).

This template id represents the IG in which this template is published.

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-97) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-113).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-111) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.51" (CONF:5566-122).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-123).

Preferred document title: "Ventilator Associated Event (VAE)"

4. **SHALL** contain exactly one [1..1] **title** (CONF:5566-28469).
5. **SHALL** contain exactly one [1..1] **componentOf** (CONF:5566-98).
  - a. This componentOf **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:5566-99).
    - i. This encompassingEncounter **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5566-100).
      1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:5566-101).
        - a. This low **SHALL** contain exactly one [1..1] **@value** (CONF:5566-114).  
Note: Admission Date
      2. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:5566-102).
        - a. The high, if present, **SHALL** contain exactly one [1..1] **@value** (CONF:5566-115).  
Note: Discharge Date

3. The value of the admission date **SHALL NOT** be earlier than January 1, 1986; **SHALL NOT** be earlier than the date of birth; and **SHALL NOT** be later than the event date (CONF:5566-116).
- ii. This encompassingEncounter **SHALL** contain exactly one [1..1] **location** (CONF:5566-103).
  1. This location **SHALL** contain exactly one [1..1] **healthCareFacility** (CONF:5566-104).
    - a. This healthCareFacility **SHALL** contain exactly one [1..1] **id** (CONF:5566-105).
      - i. This id **SHALL** contain exactly one [1..1] **@root** (CONF:5566-117).

The value of healthCareFacility/id/@extension must be a value previously registered with NHSN.

- ii. This id **SHALL** contain exactly one [1..1] **@extension** (CONF:5566-118).
  - b. This healthCareFacility **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNHealthcareServiceLocationCode](#) urn:oid:2.16.840.1.113883.13.19 **DYNAMIC** (CONF:5566-119).
6. **SHALL** contain exactly one [1..1] **component** (CONF:5566-106).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:5566-107).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-108) such that it
      1. **SHALL** contain exactly one [1..1] [Infection Details Section in a VAE Report](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.59:2017-04-01) (CONF:5566-136).
    - ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-30874) such that it
      1. **SHALL** contain exactly one [1..1] [COVID-19 Section \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01) (CONF:5566-30875).
    - iii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-109) such that it
      1. **SHALL** contain exactly one [1..1] [Findings Section in an Infection-Type Report](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45) (CONF:5566-137).
    - iv. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:5566-110) such that it
      1. **SHALL** contain exactly one [1..1] [Risk Factors Section in a VAE Report](#) (identifier:

urn:hl7ii:2.16.840.1.113883.10.20.5.5.60:2017-04-01)  
(CONF:5566-171).

- v. This structuredBody **MAY** contain zero or one [0..1] **component** (CONF:5566-185) such that it

- 1. **SHALL** contain exactly one [1..1] [NHSN Comment Section](#)

(identifier:

urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01)  
(CONF:5566-186).

## 2 SECTION-LEVEL TEMPLATES

### 2.1 HAI Section Generic Constraints

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.4.26 (closed)]

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Release 1 - US Realm

This template records the constraints that apply to all sections specified in the NHSN HAI Implementation Guide.

**Table 65: HAI Section Generic Constraints Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26)					
templateId	1..1	SHALL		<a href="#">86-21958</a>	
@root	1..1	SHALL		<a href="#">86-21959</a>	2.16.840.1.113883.10.20.5.4.26
code	1..1	SHALL		<a href="#">86-21953</a>	
@code	1..1	SHALL		<a href="#">86-21954</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC)
title	1..1	SHALL		<a href="#">86-21955</a>	
text	1..1	SHALL		<a href="#">86-21956</a>	
entry	1..*	SHALL		<a href="#">86-21957</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-21958) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.4.26" (CONF:86-21959).
2. **SHALL** contain exactly one [1..1] **code** (CONF:86-21953).
  - a. This code **SHALL** contain exactly one [1..1] **@code** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 **DYNAMIC**) (CONF:86-21954).
3. **SHALL** contain exactly one [1..1] **title** (CONF:86-21955).
4. **SHALL** contain exactly one [1..1] **text** (CONF:86-21956).
5. **SHALL** contain at least one [1..\*] **entry** (CONF:86-21957).

### 2.1.1 COVID-19 Section (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01 (closed)]

Published as part of NHSN Healthcare Associated Infection Reports Release 4, STU 1 - US Realm

**Table 66: COVID-19 Section (V2) Contexts**

Contained By:	Contains:
<a href="#">HAI Urinary Tract Infection Numerator Report (UTI) (V7)</a> (required) <a href="#">HAI Bloodstream Infection Report (BSI) (V9)</a> (required) <a href="#">HAI Surgical Site Infection Report (SSI) (V8)</a> (required) <a href="#">Ventilator Associated Event (VAE) Report (V7)</a> (required)	<a href="#">NHSN COVID-19 Condition Observation (V2)</a> (required)

This section template contains information about whether or not the patient had COVID-19.

**Table 67: COVID-19 Section (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01)					
templateId	1..1	SHALL		<a href="#">4475-20</a>	
@root	1..1	SHALL		<a href="#">4475-23</a>	2.16.840.1.113883.10.20.5.5.80
@extension	1..1	SHALL		<a href="#">4475-24</a>	2021-01-01
code	1..1	SHALL		<a href="#">4475-21</a>	
@code	1..1	SHALL		<a href="#">4475-25</a>	94721-8
@codeSystem	1..1	SHALL		<a href="#">4475-26</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">4475-19</a>	
observation	1..1	SHALL		<a href="#">4475-27</a>	<a href="#">NHSN COVID-19 Condition Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.270:2021-01-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4475-20) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.80" (CONF:4475-23).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-01-01" (CONF:4475-24).
3. **SHALL** contain exactly one [1..1] **code** (CONF:4475-21).

- a. This code **SHALL** contain exactly one [1..1] @code="94721-8" COVID-19 Evaluation note (CONF:4475-25).
- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4475-26).
4. **SHALL** contain exactly one [1..1] entry (CONF:4475-19).
  - a. This entry **SHALL** contain exactly one [1..1] [NHSN COVID-19 Condition Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.270:2021-01-01) (CONF:4475-27).

**Figure 2: COVID-19 Section Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.5.4.26"/>
  <templateId root="2.16.840.1.113883.10.20.5.5.80" extension="2021-01-01"/>
  <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" code="94721-8"
    displayName="COVID-19 Evaluation note"/>
  <title>COVID-19 Section</title>
  <text>...</text>
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- [C-CDA R1.1] Problem Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- [HAI R4D1] Confirmed or Suspected COVID-19 (V2) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.270" extension="2021-01-01"/>
      ...
    </observation>
  </entry>
</section>
```

### 2.1.2 Details Section in an Evidence of Infection (Dialysis) Report (V6)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.41:2019-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 4 - US Realm

**Table 68: Details Section in an Evidence of Infection (Dialysis) Report (V6) Contexts**

Contained By:	Contains:
<a href="#">HAI Evidence of Infection (Dialysis) Report (V11)</a> (required)	<a href="#">Death Observation in an Evidence of Infection (Dialysis) Report</a> (required) <a href="#">Criteria of Diagnosis Organizer</a> (required) <a href="#">Hospital Admission Clinical Statement</a> (required) <a href="#">Dialysis Clinic Admission Clinical Statement</a> (required) <a href="#">Loss of Vascular Access Observation</a> (required) <a href="#">Infection Indicator Organizer (V5)</a> (required)

The clinical statements in this section record the criteria used in the diagnosis of an infection or the identification of an adverse reaction. They also record any infection indicators, dialysis clinic admission date in comparison to event date, whether the patient was hospitalized, and death observation.

**Table 69: Details Section in an Evidence of Infection (Dialysis) Report (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.41:2019-04-01)					
templateId	1..1	SHALL		<a href="#">4395-22338</a>	
@root	1..1	SHALL		<a href="#">4395-30224</a>	2.16.840.1.113883.10.20.5.5.41
@extension	1..1	SHALL		<a href="#">4395-30282</a>	2019-04-01
code	1..1	SHALL		<a href="#">4395-22340</a>	
@code	1..1	SHALL		<a href="#">4395-22341</a>	51899-3
@codeSystem	1..1	SHALL		<a href="#">4395-30598</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">4395-22342</a>	
organizer	1..1	SHALL		<a href="#">4395-30428</a>	<a href="#">Infection Indicator Organizer (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.181:2019-04-01)</a>
entry	1..1	SHALL		<a href="#">4395-22344</a>	
organizer	1..1	SHALL		<a href="#">4395-22345</a>	<a href="#">Criteria of Diagnosis Organizer (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.180)</a>
entry	1..1	SHALL		<a href="#">4395-22346</a>	
act	1..1	SHALL		<a href="#">4395-22347</a>	<a href="#">Hospital Admission Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.133)</a>
entry	1..1	SHALL		<a href="#">4395-22348</a>	
observation	1..1	SHALL		<a href="#">4395-22349</a>	<a href="#">Death Observation in an Evidence of Infection (Dialysis) Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.121)</a>
entry	1..1	SHALL		<a href="#">4395-22350</a>	
encounter	1..1	SHALL		<a href="#">4395-22351</a>	<a href="#">Dialysis Clinic Admission Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.124)</a>



XPath	Card.	Verb	Data Type	CONF#	Value
entry	1..1	SHALL		<a href="#">4395-30222</a>	
observation	1..1	SHALL		<a href="#">4395-30223</a>	<a href="#">Loss of Vascular Access Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.203)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-22338) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.41" (CONF:4395-30224).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30282).
3. **SHALL** contain exactly one [1..1] **code** (CONF:4395-22340).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51899-3" Details Section (CONF:4395-22341).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30598).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:4395-22342) such that it
  - a. **SHALL** contain exactly one [1..1] [Infection Indicator Organizer \(V5\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.181:2019-04-01) (CONF:4395-30428).
5. **SHALL** contain exactly one [1..1] **entry** (CONF:4395-22344) such that it
  - a. **SHALL** contain exactly one [1..1] [Criteria of Diagnosis Organizer](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.180) (CONF:4395-22345).
6. **SHALL** contain exactly one [1..1] **entry** (CONF:4395-22346) such that it
  - a. **SHALL** contain exactly one [1..1] [Hospital Admission Clinical Statement](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.133) (CONF:4395-22347).
7. **SHALL** contain exactly one [1..1] **entry** (CONF:4395-22348) such that it
  - a. **SHALL** contain exactly one [1..1] [Death Observation in an Evidence of Infection \(Dialysis\) Report](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.121) (CONF:4395-22349).
8. **SHALL** contain exactly one [1..1] **entry** (CONF:4395-22350) such that it
  - a. **SHALL** contain exactly one [1..1] [Dialysis Clinic Admission Clinical Statement](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.124) (CONF:4395-22351).
9. **SHALL** contain exactly one [1..1] **entry** (CONF:4395-30222) such that it
  - a. **SHALL** contain exactly one [1..1] [Loss of Vascular Access Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.203) (CONF:4395-30223).

**Figure 3: Details Section in an Evidence of Infection (Dialysis) Report (V5) Example**

```

<section>
  <!-- [HAI R1] HAI Section Generic Constraints template -->
  < templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- [HAI R3D1.1] Details Section in an Evidence of Infection (Dialysis) Report (V5) -->
  <templateId root="2.16.840.1.113883.10.20.5.5.41"
    extension="2019-04-01" />
  <code codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    code="51899-3"
    displayName="Details Section"/>
  <title>Details</title>
  ...
  <entry typeCode="DRIV">
    <organizer classCode="CLUSTER" moodCode="EVN">
      <!-- [HAI R3D1.1] Infection Indication Organizer (V5) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.181"
        extension="2019-04-01"/>
      ...
    </organizer >
  </entry>
  <entry typeCode="DRIV">
    < organizer classCode="CLUSTER" moodCode="EVN">
      <!-- Criteria of Diagnosis Organizer -->
      <templateId root="2.16.840.1.113883.10.20.5.6.180"/>
      ...
    </organizer >
  </entry>
  <entry typeCode="DRIV">
    <act classCode="ACT" moodCode="EVN" negationInd="false">
      <!--Hospital Admission Clinical Statement -->
      <templateId root="2.16.840.1.113883.10.20.5.6.133"/>
      ...
    </act >
  </entry>
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" nullFlavor="NI">
      <!-- C-CDA Deceased Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.79"/>
      <!-- HAI Death Observation in an Evidence of Infection (Dialysis) Report -->
      <templateId root="2.16.840.1.113883.10.20.5.6.121"/>
      ...
    </observation>
  </entry>
  <entry typeCode="DRIV">
    <encounter classCode="ENC" moodCode="EVN">
      <!-- Dialysis Clinic Admission Clinical Statement -->
      <templateId root="2.16.840.1.113883.10.20.5.6.124"/>
      ...
    </encounter >
  </entry>
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Problem Observation Type -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4" />
      <!-- Loss of Vascular Access Observation -->

```

```
<templateId root="2.16.840.1.113883.10.20.5.6.203"/>
...
</observation>
</entry>
</section>
```

2.1.3 Encounters Section in a LIO Report (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.44:2014-12-01 (closed)]

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Table 70: Encounters Section in a LIO Report (V2) Contexts

Contained By:	Contains:
<a href="#">HAI Laboratory-Identified Organism (LIO) Report (V7)</a> (required)	<a href="#">Prior Discharge Encounter (V2)</a> (required) <a href="#">Last Physical Overnight Location Act</a> (required) <a href="#">Other Facility Discharge Act</a> (required)

In a LIO Report, the Encounters Section contains entries representing the last physical overnight location of the patient along with whether in the past four weeks the patient was either discharged from the facility or from another facility. It also records the date of that discharge.

**Table 71: Encounters Section in a LIO Report (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.44:2014-12-01)					
templateId	1..1	SHALL		<a href="#">1129-22364</a>	
@root	1..1	SHALL		<a href="#">1129-22365</a>	2.16.840.1.113883.10.20.5.5.44
@extension	1..1	SHALL		<a href="#">1129-30283</a>	2014-12-01
code	1..1	SHALL		<a href="#">1129-22366</a>	
@code	1..1	SHALL		<a href="#">1129-22367</a>	46240-8
@codeSystem	1..1	SHALL		<a href="#">1129-30599</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">1129-22368</a>	
encounter	1..1	SHALL		<a href="#">1129-30422</a>	<a href="#">Prior Discharge Encounter (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.151:2014-12-01)</a>
entry	1..1	SHALL		<a href="#">1129-28240</a>	
act	1..1	SHALL		<a href="#">1129-30588</a>	<a href="#">Other Facility Discharge Act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.228:2014-12-01)</a>
entry	1..1	SHALL		<a href="#">1129-30273</a>	
act	1..1	SHALL		<a href="#">1129-30575</a>	<a href="#">Last Physical Overnight Location Act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.227:2014-12-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-22364) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.44" (CONF:1129-22365).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-12-01" (CONF:1129-30283).
3. **SHALL** contain exactly one [1..1] **code** (CONF:1129-22366).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="46240-8" History of Encounters (CONF:1129-22367).

- b. This code **SHALL** contain exactly one [1..1]  
@codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC  
urn:oid:2.16.840.1.113883.6.1) (CONF:1129-30599).
- 4. **SHALL** contain exactly one [1..1] **entry** (CONF:1129-22368) such that it
  - a. **SHALL** contain exactly one [1..1] Prior Discharge Encounter (V2)  
(identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.151:2014-12-01)  
(CONF:1129-30422).
- 5. **SHALL** contain exactly one [1..1] **entry** (CONF:1129-28240) such that it
  - a. **SHALL** contain exactly one [1..1] Other Facility Discharge Act (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.5.6.228:2014-12-01) (CONF:1129-  
30588).
- 6. **SHALL** contain exactly one [1..1] **entry** (CONF:1129-30273) such that it
  - a. **SHALL** contain exactly one [1..1] Last Physical Overnight Location Act  
(identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.227:2014-12-01)  
(CONF:1129-30575).

**Figure 4: Encounters Section in an LIO Report (V2) Example**

```
<section>
  <!-- HAI Generic section templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- Encounters Section in an LIO Report (V2) templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.5.44"
    extension="2014-12-01" />
  <code code="46240-8"
    codeSystem="2.16.840.1.113883.6.1"
    displayName="History of Encounters" />
  <title>Encounters</title>
  <text>...</text>
  <entry typeCode="DRIV">
    <!-- Prior Discharge Encounter (V2) -->
    <encounter classCode="ENC" moodCode="EVN">
      <!-- C-CDA Encounter activity templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.49" />
      <!-- HAI Prior Discharge Encounter (V2) templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.151"
        extension="2014-12-01" />
      ...
    </encounter>
  </entry>

  <entry typeCode="DRIV">
    <!-- Other Facility Discharge Act -->
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.5.6.228"
        extension="2014-12-01" />
      ...
    </act>
  </entry>

  <entry typeCode="DRIV">
    <!-- Last Physical Overnight Location Act -->
    <act classCode="ACT" moodCode="EVN">
      <!-- Last Physical Overnight Location Act templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.227"
        extension="2014-12-01" />
      ...
    </act>
  </entry>
</section>
```

## 2.1.4 Encounters Section in a LOS/Men Denominator

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.71:2019-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 4 - US Realm

**Table 72: Encounters Section in a LOS/Men Denominator Contexts**

Contained By:	Contains:
<a href="#">Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report (V6)</a> (required)	<a href="#">Location Within Facility Encounter</a> (required)

In a LOS/Men Denominator, the Encounters Section contains information about an infant's location within the facility, the date admitted or transferred to that location, the disposition of the infant and, if the infant was discharged, transferred, or expired, the date on which this occurred.

**Table 73: Encounters Section in a LOS/Men Denominator Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.71:2019-04-01)					
templateId	1..1	SHALL		<a href="#">4395-30811</a>	
@root	1..1	SHALL		<a href="#">4395-30817</a>	2.16.840.1.113883.10.20.5.5.71
@extension	1..1	SHALL		<a href="#">4395-30818</a>	2019-04-01
code	1..1	SHALL		<a href="#">4395-30812</a>	
@code	1..1	SHALL		<a href="#">4395-30819</a>	46240-8
@codeSystem	1..1	SHALL		<a href="#">4395-30820</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">4395-30809</a>	
encounter	1..1	SHALL		<a href="#">4395-30810</a>	<a href="#">Location Within Facility Encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.262:2019-04-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-30811) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.71" (CONF:4395-30817).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30818).

3. **SHALL** contain exactly one [1..1] **code** (CONF:4395-30812).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="46240-8" History of Encounters (CONF:4395-30819).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30820).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:4395-30809) such that it
  - a. **SHALL** contain exactly one [1..1] Location Within Facility Encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.262:2019-04-01) (CONF:4395-30810).

**Figure 5: Encounters Section in a LOS/MEN Denominator Example**

```

<section>
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- [HAI R3D4] Encounters Section in a LOS/MEN Denominator -->
  <templateId root="2.16.840.1.113883.10.20.5.5.999999" extension="2019-04-01" />
  <code codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    code="46240-8"
    displayName="History of Encounters" />
  <title>Location Within Facility Encounter</title>
  <text>...</text>
  <entry>
    <!-- [HAI R3D3] Location Within Facility Encounter -->
    <encounter classCode="ENC" moodCode="EVN">
      <!-- [C-CDA R1.1] Encounter activity -->
      <templateId root="2.16.840.1.113883.10.20.22.4.49" />
      <!-- [HAI R3D3] Location Within Facility Encounter -->
      <templateId root="2.16.840.1.113883.10.20.5.262" extension="2019-04-01" />
      ...
    </encounter>
  </entry>
</section>

```

### 2.1.5 Findings Section in a LIO Report (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.46:2014-12-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2, DSTU 2.1 - US Realm

**Table 74: Findings Section in a LIO Report (V2) Contexts**

Contained By:	Contains:
<u>HAI Laboratory-Identified Organism (LIO) Report (V7)</u> (required)	<u>Pathogen Identified Observation (LIO) (V2)</u> (required)

The Findings Section in a LIO Report records a laboratory-identified microorganism. It differs from the Findings Section in Infection Reports in that it records only one microorganism (if more were



identified, each is recorded in a separate report), details about the specimen collection are recorded, and no drug-susceptibility test results are recorded. If no organism is found, no report is submitted; thus, the explicit statement "no organism found", which is used in the Findings Section in Infection Reports, is not used here.

**Table 75: Findings Section in a LIO Report (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.46:2014-12-01)					
templateId	1..1	SHALL		<a href="#">1129-22378</a>	
@root	1..1	SHALL		<a href="#">1129-22379</a>	2.16.840.1.113883.10.20.5.5.46
@extension	1..1	SHALL		<a href="#">1129-30463</a>	2014-12-01
code	1..1	SHALL		<a href="#">1129-22380</a>	
@code	1..1	SHALL		<a href="#">1129-22381</a>	18769-0
@codeSystem	1..1	SHALL		<a href="#">1129-30600</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">1129-22382</a>	
observation	1..1	SHALL		<a href="#">1129-30419</a>	<a href="#">Pathogen Identified Observation (LIO) (V2)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.146:2014-12-01)

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-22378) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.46" (CONF:1129-22379).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-12-01" (CONF:1129-30463).
3. **SHALL** contain exactly one [1..1] **code** (CONF:1129-22380).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="18769-0" Findings Section (CONF:1129-22381).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1129-30600).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:1129-22382) such that it
  - a. **SHALL** contain exactly one [1..1] [Pathogen Identified Observation \(LIO\) \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.146:2014-12-01) (CONF:1129-30419).

**Figure 6: Findings Section in an LIO Report (V2) Example**

```
<section>
  <!-- HAI Generic section template -->
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- HAI Findings Section in an LIO Report template -->
  <templateId root="2.16.840.1.113883.10.20.5.5.46"
    extension="2014-12-01" />
  <code codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    code="18769-0"
    displayName="Findings Section" />
  <title>Findings</title>
  ...
  <entry typeCode="DRIV">
    <observation>
      <!-- Pathogen Identified Observation (LIO) V2 -->
      <templateId root="2.16.840.1.113883.10.20.5.6.146"
        extension="2014-12-01" />
      ...
    </observation>
  </entry>
</section>
```

### 2.1.6 Findings Section in an ARO Report (V5)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.32:2024-05-01  
(closed)]

Published as part of NHSN Healthcare Associated Infection Reports Release 4,  
STU 3 - US Realm

**Table 76: Findings Section in an ARO Report (V5) Contexts**

Contained By:	Contains:
<a href="#">HAI AUR Antimicrobial Resistance Option (ARO) Report [V10]</a> (required)	<a href="#">Specimen Collection Procedure (ARO) [V5]</a> (required)

The Findings Section in an ARO Report records the details concerning one pathogen isolate and its related antimicrobial susceptibility testing results.

**Table 77: Findings Section in an ARO Report (V5) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.32:2024-05-01)					
templateId	1..1	SHALL		<a href="#">5554-21128</a>	
@root	1..1	SHALL		<a href="#">5554-21129</a>	2.16.840.1.113883.10.20.5.5.32
@extension	1..1	SHALL		<a href="#">5554-30475</a>	2024-05-01
code	1..1	SHALL		<a href="#">5554-21132</a>	
@code	1..1	SHALL		<a href="#">5554-21133</a>	18769-0
@codeSystem	1..1	SHALL		<a href="#">5554-30601</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">5554-21136</a>	
procedure	1..1	SHALL		<a href="#">5554-30473</a>	<a href="#">Specimen Collection Procedure (ARO) (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.188:2024-05-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:5554-21128) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.32" (CONF:5554-21129).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2024-05-01" (CONF:5554-30475).
3. **SHALL** contain exactly one [1..1] **code** (CONF:5554-21132).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="18769-0" Findings Section (CONF:5554-21133).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:5554-30601).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:5554-21136).
  - a. This entry **SHALL** contain exactly one [1..1] [Specimen Collection Procedure \(ARO\) \(V5\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.188:2024-05-01) (CONF:5554-30473).

**Figure 7: Findings Section in an ARO Report (V5) Example**

```
<section>
  <!-- [HAI R3] HAI Section Generic Constraints -->
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- [HAI R4STU3] Findings Section in an ARO Report (V5) -->
  <templateId root="2.16.840.1.113883.10.20.5.5.32" extension="2024-05-01" />
  <code codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    code="18769-0"
    displayName="Findings section" />
  <title>Findings</title>
  <text>
    ...
  </text>
  <entry typeCode="DRIV">
    <procedure classCode="PROC" moodCode="EVN">
      <!-- [HAI R4STU3] Specimen Collection Procedure (ARO) (V5) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.188" extension="2024-05-01" />
      ...
    </procedure>
  </entry>
</section>
```

## 2.1.7 Findings Section in an Infection-Type Report

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.5.45 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
Release 1 - US Realm

**Table 78: Findings Section in an Infection-Type Report Contexts**

Contained By:	Contains:
<a href="#">HAI Urinary Tract Infection Numerator Report (UTI) (V7)</a> (required) <a href="#">HAI Bloodstream Infection Report (BSI) (V9)</a> (required) <a href="#">HAI Evidence of Infection (Dialysis) Report (V11)</a> (optional) <a href="#">HAI Surgical Site Infection Report (SSI) (V8)</a> (required) <a href="#">Late Onset Sepsis/Meningitis Event (LOS) Report (V7)</a> (optional) <a href="#">Ventilator Associated Event (VAE) Report (V7)</a> (required)	<a href="#">Pathogen Identified Observation</a> (optional) <a href="#">MDRO/CDI Observation</a> (optional) <a href="#">Findings Organizer</a> (optional)

The Findings Section in an Infection-Type Report records whether infection organisms were identified and, if so, records details about them.

**Table 79: Findings Section in an Infection-Type Report Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45)					
templateId	1..1	SHALL		<a href="#">86-22371</a>	
@root	1..1	SHALL		<a href="#">86-22372</a>	2.16.840.1.113883.10.20.5.5.45
code	1..1	SHALL		<a href="#">86-22373</a>	
@code	1..1	SHALL		<a href="#">86-22374</a>	18769-0
@codeSystem	1..1	SHALL		<a href="#">86-28357</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	0..3	MAY		<a href="#">86-23048</a>	
organizer	1..1	SHALL		<a href="#">86-23049</a>	<a href="#">Findings Organizer (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.182)</a>
entry	0..1	MAY		<a href="#">86-23051</a>	
observation	1..1	SHALL		<a href="#">86-23052</a>	<a href="#">Pathogen Identified Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.145)</a>
entry	0..1	MAY		<a href="#">86-23054</a>	
observation	1..1	SHALL		<a href="#">86-23055</a>	<a href="#">MDRO/CDI Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.142)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22371) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.45" (CONF:86-22372).
3. **SHALL** contain exactly one [1..1] **code** (CONF:86-22373).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="18769-0" Findings Section (CONF:86-22374).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:86-28357).
4. **MAY** contain [0..3] **entry** (CONF:86-23048) such that it
  - a. **SHALL** contain exactly one [1..1] [Findings Organizer](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.182) (CONF:86-23049).
  - b. If pathogens were identified, the Findings Section **SHALL** contain at least one and no more than three entry elements containing a Findings Organizer reporting pathogens identified (CONF:86-23050).
5. **MAY** contain zero or one [0..1] **entry** (CONF:86-23051) such that it

- a. **SHALL** contain exactly one [1..1] [Pathogen Identified Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.145) (CONF:86-23052).
  - b. If no pathogens were identified, the Findings Section **SHALL** contain a single entry element containing a Pathogen Identified Observation reporting that no pathogens were identified (CONF:86-23053).
6. **MAY** contain zero or one [0..1] **entry** (CONF:86-23054) such that it
- a. **SHALL** contain exactly one [1..1] [MDRO/CDI Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.142) (CONF:86-23055).
  - b. If pathogens were identified, and the report is a UTI, SSI, VAE, or BSI Report, an entry element **SHALL** be present, containing an MDRO/CDI Observation (CONF:86-23056).

**Figure 8: Findings Section in an Infection-Type Report Example - Pathogen(s) Identified**

```

<section>
  <!-- HAI Generic section template -->
  < templateId root="2.16.840.1.113883.10.20.5.4.26"/>
  <!-- HAI Findings section in an infection-type report template -->
  <templateId root="2.16.840.1.113883.10.20.5.5.45"/>
  <code codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    code="18769-0"
    displayName="Findings Section"/>
  <title>Findings</title>
  ...
  <entry>
    <organizer>
      <!-- Findings Organizer -->
      <templateId root="2.16.840.1.113883.10.20.5.6.182"/>
      ...
    </organizer>
  </entry>
  <entry typeCode="DRIV">
    <observation>
      <!-- MDRO/CDI Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.142"/>
      ...
    </observation>
  </entry>
</section>

```

**Figure 9: Findings Section in an Infection-Type Report Example - No pathogens identified**

```
<section>
  <!-- HAI Generic section template -->
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- HAI Findings section in an infection-type report template -->
  <templateId root="2.16.840.1.113883.10.20.5.5.45" />
  <code codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    code="18769-0"
    displayName="Findings" />
  <title>Findings</title>
  <text>...</text>
  <!-- No pathogens identified -->
  <entry>
    <!-- Pathogen Identified Observation -->
    <observation classCode="OBS" moodCode="EVN">
      <!-- [C-CDA R1.1] Result Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.2" />
      <!-- [HAI R1] Pathogen Identified Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.145" />
      <id nullFlavor="NA" />
      <code code="41852-5"
        displayName="Microorganism identified"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC" />
      <statusCode code="completed" />
      <effectiveTime nullFlavor="NA" />
      <value xsi:type="CD" code="3119-7"
        displayName="No pathogen identified"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="cdcNHSN" />
    </observation>
  </entry>
</section>
```

## 2.1.8 Findings Section in an OPC SSI Report

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.70:2019-04-01  
(closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
Release 3, STU 4 - US Realm

**Table 80: Findings Section in an OPC SSI Report Contexts**

Contained By:	Contains:
<a href="#">Outpatient Procedure Surgical Site Infection (SSI) Event Report [V6]</a> (required)	<a href="#">Pathogen Identified Observation</a> (optional) <a href="#">Findings Organizer</a> (optional)

The Findings Section in an OPC SSI Report records whether infection organisms were identified and, if so, records details about them.

**Table 81: Findings Section in an OPC SSI Report Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.70:2019-04-01)					
templateId	1..1	SHALL		<a href="#">4395-30776</a>	
@root	1..1	SHALL		<a href="#">4395-30781</a>	2.16.840.1.113883.10.20.5.5.70
@extension	1..1	SHALL		<a href="#">4395-30785</a>	2019-04-01
code	1..1	SHALL		<a href="#">4395-30777</a>	
@code	1..1	SHALL		<a href="#">4395-30782</a>	18769-0
@codeSystem	1..1	SHALL		<a href="#">4395-30783</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	0..3	MAY		<a href="#">4395-30774</a>	
organizer	1..1	SHALL		<a href="#">4395-30775</a>	<a href="#">Findings Organizer (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.182)</a>
entry	0..1	MAY		<a href="#">4395-30778</a>	
observation	1..1	SHALL		<a href="#">4395-30779</a>	<a href="#">Pathogen Identified Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.145)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-30776) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.70" (CONF:4395-30781).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30785).
3. **SHALL** contain exactly one [1..1] **code** (CONF:4395-30777).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="18769-0" Findings Section (CONF:4395-30782).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30783).

This section must contain either a Findings Organizer detailing identified pathogens or a Pathogen Identified Observation reporting that no pathogens were identified. Both a Findings Organizer and a Pathogen Identified Observation cannot be present at the same time.

4. **MAY** contain [0..3] **entry** (CONF:4395-30774) such that it



- a. **SHALL** contain exactly one [1..1] [Findings Organizer](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.182) (CONF:4395-30775).
  - b. If pathogens were identified, the Findings Section **SHALL** contain at least one and no more than three entry elements containing a Findings Organizer reporting pathogens identified (CONF:4395-30780).
5. **MAY** contain zero or one [0..1] **entry** (CONF:4395-30778) such that it
  - a. **SHALL** contain exactly one [1..1] [Pathogen Identified Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.145) (CONF:4395-30779).
  - b. If no pathogens were identified, the Findings Section **SHALL** contain a single entry element containing a Pathogen Identified Observation reporting that no pathogens were identified (CONF:4395-30784).

**Figure 10: Findings Section in an OPC SSI Report Example - Pathogen(s) Identified**

```

<section>
  <!-- HAI Generic section template -->
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- [HAI R3D4] HAI Findings Section in an OPC SSI report -->
  <templateId root="2.16.840.1.113883.10.20.5.5.70" extension="2019-04-01" />
  <code codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    code="18769-0"
    displayName="Findings" />
  <title>Findings</title>
  <text>...</text>
  <entry typeCode="DRIV">
    <organizer classCode="CLUSTER" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.5.6.182" />
      ...
    </organizer>
    <!-- end of Findings organizer for the first organism -->
  </entry>
  <entry typeCode="DRIV">
    <organizer classCode="CLUSTER" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.5.6.182" />
      ...
    </organizer>
    <!-- end of Findings organizer for the second organism -->
  </entry>
  <entry typeCode="DRIV">
    <organizer classCode="CLUSTER" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.5.6.182" />
      ...
    </organizer>
    <!-- end of Findings organizer for the third organism -->
  </entry>
</section>

```

**Figure 11: Findings Section in an OPC SSI Report Example - No Pathogens Identified**

```
<section>
  <!-- HAI Generic section template -->
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- [HAI R3D4] HAI Findings Section in an OPC SSI report -->
  <templateId root="2.16.840.1.113883.10.20.5.5.70" extension="2019-04-01" />
  <code codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    code="18769-0"
    displayName="Findings" />
  <title>Findings</title>
  <text>...</text>
  <entry>
    <!-- Pathogen Identified Observation -->
    <observation classCode="OBS" moodCode="EVN">
      <!-- [C-CDA R1.1] Result Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.2" />
      <!-- [HAI R1] Pathogen Identified Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.145" />
      <id nullFlavor="NA" />
      <code code="41852-5"
        displayName="Microorganism identified"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC" />
      <statusCode code="completed" />
      <effectiveTime nullFlavor="NA" />
      <value xsi:type="CD" code="3119-7"
        displayName="No pathogen identified"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="cdcNHSN" />
    </observation>
  </entry>
</section>
```

### 2.1.9 Infection Details in Late Onset Sepsis Report

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.64:2018-04-01 (open)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 3 - US Realm

**Table 82: Infection Details in Late Onset Sepsis Report Contexts**

Contained By:	Contains:
<a href="#">Late Onset Sepsis/Meningitis Event (LOS) Report (V7)</a> (required)	<a href="#">Death Observation</a> (required) <a href="#">Infection-Type Observation</a> (required) <a href="#">Inborn/Outborn Observation</a> (required)

This template represents the event details of a late onset sepsis report.

**Table 83: Infection Details in Late Onset Sepsis Report Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.64:2018-04-01)					
templateId	1..1	SHALL		<a href="#">3357-30742</a>	
@root	1..1	SHALL		<a href="#">3357-30743</a>	2.16.840.1.113883.10.20.5.5.64
@extension	1..1	SHALL		<a href="#">3357-30744</a>	2018-04-01
code	1..1	SHALL		<a href="#">3357-30784</a>	
@code	1..1	SHALL		<a href="#">3357-30785</a>	51899-3
@codeSystem	1..1	SHALL		<a href="#">3357-30786</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">3357-30816</a>	
observation	1..1	SHALL		<a href="#">3357-30817</a>	<a href="#">Infection-Type Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139)</a>
entry	1..1	SHALL		<a href="#">3357-30818</a>	
observation	1..1	SHALL		<a href="#">3357-30819</a>	<a href="#">Inborn/Outborn Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.257:2018-04-01)</a>
entry	1..1	SHALL		<a href="#">3357-30787</a>	
observation	1..1	SHALL		<a href="#">3357-30788</a>	<a href="#">Death Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-30742) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.64" (CONF:3357-30743).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2018-04-01" (CONF:3357-30744).
3. **SHALL** contain exactly one [1..1] **code** (CONF:3357-30784).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51899-3" Details Section (CONF:3357-30785).

- b. This code **SHALL** contain exactly one [1..1]  
@codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC  
urn:oid:2.16.840.1.113883.6.1) (CONF:3357-30786).
- 4. **SHALL** contain exactly one [1..1] **entry** (CONF:3357-30816) such that it
  - a. **SHALL** contain exactly one [1..1] [Infection-Type Observation](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.5.6.139) (CONF:3357-30817).
- 5. **SHALL** contain exactly one [1..1] **entry** (CONF:3357-30818) such that it
  - a. **SHALL** contain exactly one [1..1] [Inborn/Outborn Observation](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.5.6.257:2018-04-01) (CONF:3357-30819).
- 6. **SHALL** contain exactly one [1..1] **entry** (CONF:3357-30787) such that it
  - a. **SHALL** contain exactly one [1..1] [Death Observation](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.5.6.120) (CONF:3357-30788).

**Figure 12: Infection Details in Late Onset Sepsis Report Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- [HAI R3D3] Infection Details in Late Onset Sepsis Report -->
  <templateId root="2.16.840.1.113883.10.20.5.5.64" extension="2018-04-01" />
  <code codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    code="51899-3"
    displayName="Details" />
  <title>Details Section</title>
  <text>...</text>
  <entry typeCode="DRIV">
    <!-- Infection-Type Observation -->
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- [C-CDA R1.1] Problem Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- [HAI R2N1] Infection-Type Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.139"/>
      ...
    </observation>
  </entry>
  <entry typeCode="DRIV">
    <!-- Inborn/Outborn Observation -->
    <observation classCode="OBS" moodCode="EVN" negationInd="true">
      <!-- [HAI R3D3] Inborn/Outborn Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.257" extension="2018-04-01"/>
      ...
    </observation>
  </entry>
  <entry typeCode="DRIV">
    <!-- Death Observation -->
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- [C-CDA R1.1] Deceased Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.79" />
      <!-- Death Observation in an Infection-type -->
      <templateId root="2.16.840.1.113883.10.20.5.6.120" />
      ...
    </observation>
  </entry>
</section>
```

## 2.1.10 Infection Details Section in a BSI Report

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.5.38 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
Release 1 - US Realm

**Table 84: Infection Details Section in a BSI Report Contexts**

Contained By:	Contains:
<a href="#">HAI Bloodstream Infection Report (BSI) (V9)</a> (required)	<a href="#">Death Observation</a> (optional) <a href="#">Post-Procedure Observation</a> (optional) <a href="#">Infection-Type Observation</a> (required)

This section records the infection type, with details, as well as whether the reported infection occurred during a post-procedure period. If the patient died, NHSN protocol requires that the death be recorded.

**Table 85: Infection Details Section in a BSI Report Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.38)					
templateId	1..1	SHALL		<a href="#">86-22310</a>	
@root	1..1	SHALL		<a href="#">86-22311</a>	2.16.840.1.113883.10.20.5.5.38
code	1..1	SHALL		<a href="#">86-22312</a>	
@code	1..1	SHALL		<a href="#">86-22313</a>	51899-3
@codeSystem	1..1	SHALL		<a href="#">86-28358</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">86-22314</a>	
observation	1..1	SHALL		<a href="#">86-22315</a>	<a href="#">Infection-Type Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139)</a>
entry	0..1	MAY		<a href="#">86-22316</a>	
observation	1..1	SHALL		<a href="#">86-22317</a>	<a href="#">Death Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120)</a>
entry	0..1	MAY		<a href="#">86-22318</a>	
observation	1..1	SHALL		<a href="#">86-22319</a>	<a href="#">Post-Procedure Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.150)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22310) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.38" (CONF:86-22311).
- 3. **SHALL** contain exactly one [1..1] **code** (CONF:86-22312).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51899-3" Details Section (CONF:86-22313).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:86-28358).
- 4. **SHALL** contain exactly one [1..1] **entry** (CONF:86-22314) such that it
  - a. **SHALL** contain exactly one [1..1] Infection-Type Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139) (CONF:86-22315).
- 5. **MAY** contain zero or one [0..1] **entry** (CONF:86-22316) such that it
  - a. **SHALL** contain exactly one [1..1] Death Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120) (CONF:86-22317).
- 6. **MAY** contain zero or one [0..1] **entry** (CONF:86-22318) such that it
  - a. **SHALL** contain exactly one [1..1] Post-Procedure Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.150) (CONF:86-22319).

**Figure 13: Infection Details Section in a BSI Report Example**

```
<section>
  <!-- HAI Generic Section template -->
  < templateId root="2.16.840.1.113883.10.20.5.4.26"/>
  <!-- HAI Infection Details Section in a BSI report template-->
  <templateId root="2.16.840.1.113883.10.20.5.5.38"/>
  <code codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        code="51899-3"
        displayName="Details Section"/>
  <title> Details </title>
  ...
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- Infection-Type Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.139"/>
      ...
    </observation>
  </entry>

  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Deceased Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.79"/>
      <!-- Death Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.120"/>
      ...
    </observation>
  </entry>

  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="true">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- Post-Procedure Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.150"/>
      ...
    </observation>
  </entry>
</section>
```



## 2.1.11 Infection Details Section in a UTI Report

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.5.40 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
Release 1 - US Realm

**Table 86: Infection Details Section in a UTI Report Contexts**

Contained By:	Contains:
<a href="#">HAI Urinary Tract Infection Numerator Report (UTI) (V7)</a> (required)	<a href="#">Death Observation</a> (optional) <a href="#">Post-Procedure Observation</a> (optional) <a href="#">Infection-Type Observation</a> (required)

This section records the infection type, with details. If the patient died, NHSN protocol requires that the death be recorded.

**Table 87: Infection Details Section in a UTI Report Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.40)					
templateId	1..1	SHALL		<a href="#">86-22328</a>	
@root	1..1	SHALL		<a href="#">86-22329</a>	2.16.840.1.113883.10.20.5.5.40
code	1..1	SHALL		<a href="#">86-22330</a>	
@code	1..1	SHALL		<a href="#">86-22331</a>	51899-3
@codeSystem	1..1	SHALL		<a href="#">86-28359</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">86-22332</a>	
observation	1..1	SHALL		<a href="#">86-22333</a>	<a href="#">Infection-Type Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139)</a>
entry	0..1	MAY		<a href="#">86-22334</a>	
observation	1..1	SHALL		<a href="#">86-22335</a>	<a href="#">Post-Procedure Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.150)</a>
entry	0..1	MAY		<a href="#">86-22336</a>	
observation	1..1	SHALL		<a href="#">86-22337</a>	<a href="#">Death Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22328) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.40" (CONF:86-22329).
- 3. **SHALL** contain exactly one [1..1] **code** (CONF:86-22330).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51899-3" Details Section (CONF:86-22331).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:86-28359).
- 4. **SHALL** contain exactly one [1..1] **entry** (CONF:86-22332) such that it
  - a. **SHALL** contain exactly one [1..1] Infection-Type Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139) (CONF:86-22333).
- 5. **MAY** contain zero or one [0..1] **entry** (CONF:86-22334) such that it
  - a. **SHALL** contain exactly one [1..1] Post-Procedure Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.150) (CONF:86-22335).
- 6. **MAY** contain zero or one [0..1] **entry** (CONF:86-22336) such that it
  - a. **SHALL** contain exactly one [1..1] Death Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120) (CONF:86-22337).

**Figure 14: Infection Details Section in a UTI Report Example**

```
<section>
  <!-- HAI Generic Section template -->
  < templateId root="2.16.840.1.113883.10.20.5.4.26"/>
  <!-- HAI Infection Details Section in a UTI report template -->
  <templateId root="2.16.840.1.113883.10.20.5.5.40"/>
  <code codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        code="51899-3"
        displayName="Details Section"/>
  <title>Details</title>
  ...
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- Infection-Type Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.139"/>
      ...
    </observation>
  </entry>

  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Deceased Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.79"/>
      <!-- Death Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.120"/>
      ...
    </observation>
  </entry>

  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="true">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- Post-Procedure Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.150"/>
      ...
    </observation>
  </entry>
</section>
```

## 2.1.12 Infection Details Section in a VAE Report

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.59:2017-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 2 - US Realm

**Table 88: Infection Details Section in a VAE Report Contexts**

Contained By:	Contains:
<a href="#">Ventilator Associated Event (VAE) Report (V7)</a> (required)	<a href="#">Death Observation</a> (required) <a href="#">Post-Procedure Observation</a> (optional) <a href="#">Infection-Type Observation</a> (required)

This section records the infection type, with details, as well as whether the reported infection occurred during a post-procedure period. If the patient died, NHSN protocol requires that the death be recorded.

**Table 89: Infection Details Section in a VAE Report Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.59:2017-04-01)					
templateId	1..1	SHALL		<a href="#">3311-125</a>	
@root	1..1	SHALL		<a href="#">3311-130</a>	2.16.840.1.113883.10.20.5.5.59
@extension	1..1	SHALL		<a href="#">3311-135</a>	2017-04-01
code	1..1	SHALL		<a href="#">3311-126</a>	
@code	1..1	SHALL		<a href="#">3311-131</a>	51899-3
@codeSystem	1..1	SHALL		<a href="#">3311-132</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">3311-124</a>	
observation	1..1	SHALL		<a href="#">3311-129</a>	<a href="#">Infection-Type Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139)</a>
entry	1..1	SHALL		<a href="#">3311-127</a>	
observation	1..1	SHALL		<a href="#">3311-133</a>	<a href="#">Death Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120)</a>
entry	0..1	MAY		<a href="#">3311-128</a>	
observation	1..1	SHALL		<a href="#">3311-134</a>	<a href="#">Post-Procedure Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.150)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).

2. **SHALL** contain exactly one [1..1] **templateId** (CONF:3311-125) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.59" (CONF:3311-130).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2017-04-01" (CONF:3311-135).
3. **SHALL** contain exactly one [1..1] **code** (CONF:3311-126).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51899-3" Details Section (CONF:3311-131).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3311-132).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:3311-124) such that it
  - a. **SHALL** contain exactly one [1..1] Infection-Type Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139) (CONF:3311-129).
5. **SHALL** contain exactly one [1..1] **entry** (CONF:3311-127) such that it
  - a. **SHALL** contain exactly one [1..1] Death Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120) (CONF:3311-133).
6. **MAY** contain zero or one [0..1] **entry** (CONF:3311-128) such that it
  - a. **SHALL** contain exactly one [1..1] Post-Procedure Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.150) (CONF:3311-134).

**Figure 15: Infection Details Section in a VAE Report Example**

```
<section>
  <!-- HAI Section Generic Constraints -->
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- [HAI R3D2] Infection Details Section in a VAE Report -->
  <templateId root="2.16.840.1.113883.10.20.5.5.59" extension="2017-04-01" />
  <code codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        code="51899-3"
        displayName="Details" />
  <title>Details</title>
  <text/>
  <entry typeCode="DRIV">
    <!-- Infection Type Observation -->
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- [C-CDA R1.1] Problem Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4" />
      <!-- [HAI] Infection Type Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.139" />
      ...
    </observation>
  </entry>
  <entry typeCode="DRIV">
    <!-- Death Observation -->
    <!-- Not negated: this patient died -->
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- [C-CDA R1.1] Deceased Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.79" />
      <!-- Death Observation in an Infection-type -->
      <templateId root="2.16.840.1.113883.10.20.5.6.120" />
      ...
    </observation>
  </entry>
  <entry typeCode="DRIV">
    <!-- Post-procedure Observation -->
    <!-- negationInd = false: the infection was post-procedure -->
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- [C-CDA R1.1] Problem Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4" />
      <!-- [HAI] Post-procedure Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.150" />
      ...
    </observation>
  </entry>
</section>
```

### 2.1.13 Infection Details Section in an OPC SSI Report

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.69:2019-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 4 - US Realm

**Table 90: Infection Details Section in an OPC SSI Report Contexts**

Contained By:	Contains:
<a href="#">Outpatient Procedure Surgical Site Infection (SSI) Event Report (V6)</a> (required)	<a href="#">Infection-Type Observation in an OPC SSI Event</a> (required) <a href="#">Procedure Details in an OPC SSI Event</a> (required)

This section records the infection type, with details. It records SSI level, all identification criteria used to identify this SSI event, and identified pathogen(s).

**Table 91: Infection Details Section in an OPC SSI Report Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.69:2019-04-01)					
templateId	1..1	SHALL		<a href="#">4395-30722</a>	
@root	1..1	SHALL		<a href="#">4395-30734</a>	2.16.840.1.113883.10.20.5.5.69
@extension	1..1	SHALL		<a href="#">4395-30737</a>	2019-04-01
code	1..1	SHALL		<a href="#">4395-30723</a>	
@code	1..1	SHALL		<a href="#">4395-30735</a>	51899-3
@codeSystem	1..1	SHALL		<a href="#">4395-30736</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">4395-30724</a>	
observation	1..1	SHALL		<a href="#">4395-30725</a>	<a href="#">Infection-Type Observation in an OPC SSI Event (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.263:2019-04-01)</a>
entry	1..1	SHALL		<a href="#">4395-30732</a>	
procedure	1..1	SHALL		<a href="#">4395-30733</a>	<a href="#">Procedure Details in an OPC SSI Event (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.265:2019-04-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-30722) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.69" (CONF:4395-30734).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30737).
3. **SHALL** contain exactly one [1..1] **code** (CONF:4395-30723).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51899-3" Details Section (CONF:4395-30735).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30736).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:4395-30724) such that it
  - a. **SHALL** contain exactly one [1..1] [Infection-Type Observation in an OPC SSI Event](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.263:2019-04-01) (CONF:4395-30725).
5. **SHALL** contain exactly one [1..1] **entry** (CONF:4395-30732) such that it
  - a. **SHALL** contain exactly one [1..1] [Procedure Details in an OPC SSI Event](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.265:2019-04-01) (CONF:4395-30733).



**Figure 16: Infection Details Section in an OPC SSI Report Example**

```
<section>
  <!-- HAI Generic Section template -->
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- [HAI R3D4] HAI Infection Details Section in an Outpatient SSI Report -->
  <templateId root="2.16.840.1.113883.10.20.5.5.69" extension="2019-04-01" />
  <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" code="51899-3"
displayName="Event Details" />
  <title>Event Details</title>
  <text>...</text>
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- [C-CDA R1.1] Problem Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4" />
      <!-- [HAI R2.1] Infection Type Observation in an OPC SSI Event -->
      <templateId root="2.16.840.1.113883.10.20.5.6.263" extension="2019-04-01" />
      ...
    </observation>
  </entry>
  <entry typeCode="DRIV">
    <!-- Procedure Details Clinical Statement in an Infection-type Report -->
    <procedure classCode="PROC" moodCode="EVN">
      <!-- [C-CDA R1.1] Procedure Activity Procedure -->
      <templateId root="2.16.840.1.113883.10.20.22.4.14" />
      <!-- [HAI R3D4] Procedure Details in an OPC SSI Event -->
      <templateId root="2.16.840.1.113883.10.20.5.6.265" extension="2019-04-01" />
      ...
    </procedure>
  </entry>
</section>
```

## 2.1.14 Infection Details Section in an SSI Report (V2)

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.5.39.2 (closed)]

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Release 2, DSTU 1 - US Realm

**Table 92: Infection Details Section in an SSI Report (V2) Contexts**

Contained By:	Contains:
<a href="#">HAI Surgical Site Infection Report (SSI) (V8)</a> (required)	<a href="#">Death Observation</a> (optional) <a href="#">Infection-Type Observation</a> (required) <a href="#">Procedure Details Clinical Statement in an Infection-Type Report</a> (required) <a href="#">Infection Present at the Time of Surgery Observation</a> (required) <a href="#">SSI Detected Using Toolkit Observation</a> (required)

This section records the infection type, with details. It records whether the infection was present at the time of surgery and whether the SSI was identified through the use of discharge diagnosis or procedure codes. If the patient died, NHSN protocol requires that the death be recorded.

**Table 93: Infection Details Section in an SSI Report (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.39.2)					
templateId	1..1	SHALL		<a href="#">1101-22320</a>	
@root	1..1	SHALL		<a href="#">1101-30273</a>	2.16.840.1.113883.10.20.5.5.39.2
code	1..1	SHALL		<a href="#">1101-22322</a>	
@code	1..1	SHALL		<a href="#">1101-22323</a>	51899-3
@codeSystem	1..1	SHALL		<a href="#">1101-30313</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">1101-22324</a>	
observation	1..1	SHALL		<a href="#">1101-22325</a>	<a href="#">Infection-Type Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139)</a>
entry	0..1	MAY		<a href="#">1101-22326</a>	
observation	1..1	SHALL		<a href="#">1101-22327</a>	<a href="#">Death Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120)</a>
entry	1..1	SHALL		<a href="#">1101-30274</a>	
observation	1..1	SHALL		<a href="#">1101-30275</a>	<a href="#">Infection Present at the Time of Surgery Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.205)</a>
entry	1..1	SHALL		<a href="#">1101-30294</a>	
observation	1..1	SHALL		<a href="#">1101-30295</a>	<a href="#">SSI Detected Using Toolkit Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.206)</a>
entry	1..1	SHALL		<a href="#">1101-30296</a>	
procedure	1..1	SHALL		<a href="#">1101-30297</a>	<a href="#">Procedure Details Clinical Statement in an Infection-Type Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.154)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1101-22320) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.39.2" (CONF:1101-30273).
3. **SHALL** contain exactly one [1..1] **code** (CONF:1101-22322).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51899-3" Details Section (CONF:1101-22323).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1101-30313).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:1101-22324) such that it
  - a. **SHALL** contain exactly one [1..1] [Infection-Type Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139) (CONF:1101-22325).
5. **MAY** contain zero or one [0..1] **entry** (CONF:1101-22326) such that it
  - a. **SHALL** contain exactly one [1..1] [Death Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120) (CONF:1101-22327).
6. **SHALL** contain exactly one [1..1] **entry** (CONF:1101-30274) such that it
  - a. **SHALL** contain exactly one [1..1] [Infection Present at the Time of Surgery Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.205) (CONF:1101-30275).
7. **SHALL** contain exactly one [1..1] **entry** (CONF:1101-30294) such that it
  - a. **SHALL** contain exactly one [1..1] [SSI Detected Using Toolkit Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.206) (CONF:1101-30295).
8. **SHALL** contain exactly one [1..1] **entry** (CONF:1101-30296) such that it
  - a. **SHALL** contain exactly one [1..1] [Procedure Details Clinical Statement in an Infection-Type Report](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.154) (CONF:1101-30297).

**Figure 17: Infection Details Section in an SSI Report Example**

```

<!-- HAI Generic Section template -->
< templateId root="2.16.840.1.113883.10.20.5.4.26"/>
<!-- HAI Infection Details Section in an SSI Report template -->
<templateId root="2.16.840.1.113883.10.20.5.5.39.2"/>
<code codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC"
      code="51899-3"
      displayName="Details Section"/>
<title>Details</title>
...
<entry typeCode="DRIV">
  <observation classCode="OBS" moodCode="EVN" negationInd="false">
    <!-- C-CDA Problem Observation templateId -->
    <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
    <!-- Infection-Type Observation template -->
    <templateId root="2.16.840.1.113883.10.20.5.6.139"/>
    ...
  </observation>
</entry>

<entry typeCode="DRIV">
  <observation classCode="OBS" moodCode="EVN" negationInd="false">
    <!-- C-CDA Deceased Observation templateId -->
    <templateId root="2.16.840.1.113883.10.20.22.4.79"/>
    <!-- Death Observation template -->
    <templateId root="2.16.840.1.113883.10.20.5.6.120"/>
    ...
  </observation>
</entry>

<entry typeCode="DRIV">
  <observation classCode="OBS" moodCode="EVN" negationInd="false">
    <!-- C-CDA Problem Observation -->
    <templateId root="2.16.840.1.113883.10.20.22.4.4" />
    <!-- Infection Present at the Time of Surgery Observation -->
    <templateId root="2.16.840.1.113883.10.20.5.6.205"/>
    ...
  </observation>
</entry>

<entry typeCode="DRIV">
  <observation classCode="OBS" moodCode="EVN" negationInd="false">
    <!-- SSI Detected Using Toolkit Observation -->
    <templateId root="2.16.840.1.113883.10.20.5.6.206"/>
    ...
  </observation>
</entry>

<entry typeCode="DRIV">
  <procedure classCode="PROC" moodCode="EVN">
    <!-- C-CDA Procedure Activity Procedure template -->
    <templateId root="2.16.840.1.113883.10.20.22.4.14" />
    <!-- Procedure Details Clinical Statement in an Infection-Type Report template -->
    <templateId root="2.16.840.1.113883.10.20.5.6.154"/>
    ...
  </procedure>
</entry>
</section>

```

### 2.1.15 Infection Risk Factors Section in a BSI Report (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.33:2018-04-01 (closed)]

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**Table 94: Infection Risk Factors Section in a BSI Report (V3) Contexts**

Contained By:	Contains:
<a href="#">HAI Bloodstream Infection Report (BSI) (V9)</a> (required)	<a href="#">Infection Risk Factors Measurement Observation</a> (optional) <a href="#">Infection Risk Factors Observation</a> (required) <a href="#">Hemodialysis Catheter Present</a> (required) <a href="#">Extracorporeal Life Support Present</a> (required) <a href="#">Ventricular Assist Device (VAD) Present</a> (required) <a href="#">Known or Suspected Munchhausen's By Proxy Observation</a> (required) <a href="#">Observed or Suspected Patient Injection into Vascular Line Observation</a> (required) <a href="#">Epidermolysis Bullosa Observation</a> (required) <a href="#">Pus Present in Specimen Site and Matching Organism in Blood and Specimen Observation</a> (required)

In a Bloodstream Infection (BSI) Report, the Infection Risk Factors Section contains Infection Risk Factors Observations and optional Infection Risk Factors Measurement Observations depending on the location type, specified by ClinicalDocument/componentOf/encompassingEncounter/location/healthcareFacility/code. Some information requirements in this template depend on the location reporting the infection: ICU/Other (ICU or any other location except for Specialty Care Areas), SCA (Specialty Care Areas), or NICU (Neonatal Intensive Care Unit).

**Table 95: Infection Risk Factors Section in a BSI Report (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.33:2018-04-01)					
templateId	1..1	SHALL		<a href="#">3357-22266</a>	
@root	1..1	SHALL		<a href="#">3357-22267</a>	2.16.840.1.113883.10.20.5.5.33
@extension	1..1	SHALL		<a href="#">3357-28433</a>	2018-04-01
code	1..1	SHALL		<a href="#">3357-22268</a>	
@code	1..1	SHALL		<a href="#">3357-22269</a>	51898-5
@codeSystem	1..1	SHALL		<a href="#">3357-28360</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..2	SHALL		<a href="#">3357-23203</a>	
observation	1..1	SHALL		<a href="#">3357-23204</a>	<a href="#">Infection Risk Factors Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.138)</a>
entry	0..1	MAY		<a href="#">3357-23208</a>	
observation	1..1	SHALL		<a href="#">3357-23209</a>	<a href="#">Infection Risk Factors Measurement Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.137)</a>
entry	1..1	SHALL		<a href="#">3357-28361</a>	
procedure	1..1	SHALL		<a href="#">3357-28464</a>	<a href="#">Hemodialysis Catheter Present (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.245:2017-04-01)</a>
entry	1..1	SHALL		<a href="#">3357-28362</a>	
procedure	1..1	SHALL		<a href="#">3357-28465</a>	<a href="#">Ventricular Assist Device (VAD) Present (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.247:2017-04-01)</a>
entry	1..1	SHALL		<a href="#">3357-28363</a>	
procedure	1..1	SHALL		<a href="#">3357-28466</a>	<a href="#">Extracorporeal Life Support Present (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.246:2017-04-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
entry	1..1	SHALL		<a href="#">3357-30668</a>	
observation	1..1	SHALL		<a href="#">3357-30669</a>	<a href="#">Known or Suspected Munchhausen's By Proxy Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.250:2018-04-01)</a>
entry	1..1	SHALL		<a href="#">3357-30670</a>	
observation	1..1	SHALL		<a href="#">3357-30671</a>	<a href="#">Epidermolysis Bullosa Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.252:2018-04-01)</a>
entry	1..1	SHALL		<a href="#">3357-30672</a>	
observation	1..1	SHALL		<a href="#">3357-30673</a>	<a href="#">Observed or Suspected Patient Injection into Vascular Line Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.251:2018-04-01)</a>
entry	1..1	SHALL		<a href="#">3357-30693</a>	
observation	1..1	SHALL		<a href="#">3357-30694</a>	<a href="#">Pus Present in Specimen Site and Matching Organism in Blood and Specimen Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.253:2018-04-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-22266) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.33" (CONF:3357-22267).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2018-04-01" (CONF:3357-28433).
3. **SHALL** contain exactly one [1..1] **code** (CONF:3357-22268).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51898-5" Risk Factors Section (CONF:3357-22269).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3357-28360).
4. **SHALL** contain at least one and not more than 2 **entry** (CONF:3357-23203) such that it
  - a. **SHALL** contain exactly one [1..1] [Infection Risk Factors Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.138) (CONF:3357-23204).

- b. If the location type represents an ICU/Other location (ICU or any other location except for SCA or NICU), this entry element **SHALL** be present containing an Infection Risk Factors Observation representing whether a central line was present (CONF:3357-23205).
  - c. If the location type represents an SCA location, an entry element **SHALL** be present containing an Infection Risk Factors Observation representing whether a permanent central line was present, and an entry element containing an Infection Risk Factors Observation representing whether a Temporary Central Line was present (CONF:3357-23206).
  - d. If the location type represents an NICU location, an entry element **SHALL** be present containing an Infection Risk Factors Observation representing whether a central line was present (CONF:3357-23207).
- 5. **MAY** contain zero or one [0..1] **entry** (CONF:3357-23208) such that it
  - a. **SHALL** contain exactly one [1..1] Infection Risk Factors Measurement Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.137) (CONF:3357-23209).
  - b. If the location type represents an NICU location, an entry element **SHALL** be present containing an Infection Risk Factors Measurement Observation representing the birth weight (CONF:3357-23210).
- 6. **SHALL** contain exactly one [1..1] **entry** (CONF:3357-28361) such that it
  - a. **SHALL** contain exactly one [1..1] Hemodialysis Catheter Present (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.245:2017-04-01) (CONF:3357-28464).
- 7. **SHALL** contain exactly one [1..1] **entry** (CONF:3357-28362) such that it
  - a. **SHALL** contain exactly one [1..1] Ventricular Assist Device (VAD) Present (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.247:2017-04-01) (CONF:3357-28465).
- 8. **SHALL** contain exactly one [1..1] **entry** (CONF:3357-28363) such that it
  - a. **SHALL** contain exactly one [1..1] Extracorporeal Life Support Present (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.246:2017-04-01) (CONF:3357-28466).
- 9. **SHALL** contain exactly one [1..1] **entry** (CONF:3357-30668) such that it
  - a. **SHALL** contain exactly one [1..1] Known or Suspected Munchausen's By Proxy Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.250:2018-04-01) (CONF:3357-30669).
- 10. **SHALL** contain exactly one [1..1] **entry** (CONF:3357-30670) such that it
  - a. **SHALL** contain exactly one [1..1] Epidermolysis Bullosa Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.252:2018-04-01) (CONF:3357-30671).
- 11. **SHALL** contain exactly one [1..1] **entry** (CONF:3357-30672) such that it
  - a. **SHALL** contain exactly one [1..1] Observed or Suspected Patient Injection into Vascular Line Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.251:2018-04-01) (CONF:3357-30673).



12. **SHALL** contain exactly one [1..1] **entry** (CONF:3357-30693) such that it
- a. **SHALL** contain exactly one [1..1] [Pus Present in Specimen Site and Matching Organism in Blood and Specimen Observation](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.253:2018-04-01) (CONF:3357-30694).

**Figure 18: Infection Risk Factors Section in BSI Report (V3) Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <templateId root="2.16.840.1.113883.10.20.5.5.33" extension="2018-04-01" />
  <code codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC" 2.16.840.1.113883.10.20.5.5.33
    code="51898-5"
    displayName="Risk Factors" />
  <title>Risk Factors</title>
  <text>...</text>
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- [C-CDA R1.1] Problem Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4" />
      <!-- [HAI] Infection Risk Factors Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.138" />
      ...
    </observation>
  </entry>
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- [C-CDA R1.1] Vital Sign Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.27" />
      <!-- [HAI] Infection Risk Factors Measurement Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.137" />
      ...
    </observation>
  </entry>
  <entry typeCode="DRIV">
    <procedure classCode="PROC" moodCode="EVN" negationInd="false">
      <!-- [HAI R3D2] Hemodialysis Catheter Present-->
      <templateId root="2.16.840.1.113883.10.20.5.6.245" extension="2017-04-01" />
      ...
    </procedure>
  </entry>
  <entry typeCode="DRIV">
    <procedure classCode="PROC" moodCode="EVN" negationInd="false">
      <!-- [HAI R3D2] Extracorporeal Life Support Present -->
      <templateId root="2.16.840.1.113883.10.20.5.6.246" extension="2017-04-01" />
      <code nullFlavor="UNK" />
      ...
    </procedure>
  </entry>
  <entry typeCode="DRIV">
    <procedure classCode="PROC" moodCode="EVN" negationInd="false">
      <!-- [HAI R3D2] Ventricular Assist Device (VAD) Present -->
      <templateId root="2.16.840.1.113883.10.20.5.6.247" extension="2017-04-01" />
      ...
    </procedure>
  </entry>
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- [C-CDA R1.1] Problem Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4" />
      <!-- [HAI R3D3] Known or Suspected Munchhausen's By Proxy Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.250" extension="2018-04-01" />
```

```

    ...
  </observation>
</entry>
<entry typeCode="DRIV">
  <observation classCode="OBS" moodCode="EVN" negationInd="false">
    <!-- [C-CDA R1.1] Problem Observation -->
    <templateId root="2.16.840.1.113883.10.20.22.4.4" />
    <!-- [HAI R3D3] Observed or Suspected Patient Injection into Vascular Line
Observation -->
    <templateId root="2.16.840.1.113883.10.20.5.6.251" extension="2018-04-01" />
    ...
  </observation>
</entry>
<entry typeCode="DRIV">
  <observation classCode="OBS" moodCode="EVN" negationInd="false">
    <!-- [C-CDA R1.1] Problem Observation -->
    <templateId root="2.16.840.1.113883.10.20.22.4.4" />
    <!-- [HAI R3D3] Epidermolysis Bullosa Observation -->
    <templateId root="2.16.840.1.113883.10.20.5.6.252" extension="2018-04-01" />
    ...
  </observation>
</entry>
<entry typeCode="DRIV">
  <observation classCode="OBS" moodCode="EVN" negationInd="false">
    <!-- [C-CDA R1.1] Problem Observation -->
    <templateId root="2.16.840.1.113883.10.20.22.4.4" />
    <!-- [HAI R3D3] Pus Present in Specimen Site and Matching Organism in Blood and
Specimen -->
    <templateId root="2.16.840.1.113883.10.20.5.6.253" extension="2018-04-01" />
    ...
  </observation>
</entry>
</section>

```

## 2.1.16 Infection Risk Factors Section in a CLIP Report (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.34:2014-12-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2, DSTU 2.1 - US Realm

**Table 96: Infection Risk Factors Section in a CLIP Report (V2) Contexts**

Contained By:	Contains:
<a href="#">HAI Central-Line Insertion Practice Numerator Report (V7)</a> (required)	<a href="#">Central-Line Insertion Practice Clinical Statement (V2)</a> (required)
	<a href="#">Antimicrobial Coated Catheter Used Observation</a> (optional)

In a CLIP Report, the Infection Risk Factors Section contains a single Central-Line Insertion Practice Clinical Statement, which contains a set of sequenced events. This section also optionally contains an Antimicrobial Coated Catheter Used Observation.

**Table 97: Infection Risk Factors Section in a CLIP Report (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.34:2014-12-01)					
templateId	1..1	SHALL		<a href="#">1129-22277</a>	
@root	1..1	SHALL		<a href="#">1129-28199</a>	2.16.840.1.113883.10.20.5.5.34
@extension	1..1	SHALL		<a href="#">1129-30288</a>	2014-12-01
code	1..1	SHALL		<a href="#">1129-22273</a>	
@code	1..1	SHALL		<a href="#">1129-22274</a>	51898-5
@codeSystem	1..1	SHALL		<a href="#">1129-28198</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">1129-22275</a>	
act	1..1	SHALL		<a href="#">1129-30430</a>	<a href="#">Central-Line Insertion Practice Clinical Statement (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.116:2014-12-01)</a>
entry	0..1	SHOULD		<a href="#">1129-28213</a>	
observation	1..1	SHALL		<a href="#">1129-28214</a>	<a href="#">Antimicrobial Coated Catheter Used Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.217:2014-12-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-22277) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.34" (CONF:1129-28199).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-12-01" (CONF:1129-30288).
3. **SHALL** contain exactly one [1..1] **code** (CONF:1129-22273).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51898-5" Risk Factors Section (CONF:1129-22274).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1129-28198).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:1129-22275) such that it
  - a. **SHALL** contain exactly one [1..1] [Central-Line Insertion Practice Clinical Statement \(V2\)](#) (identifier:

urn:hl7ii:2.16.840.1.113883.10.20.5.6.116:2014-12-01) (CONF:1129-30430).

5. **SHOULD** contain zero or one [0..1] **entry** (CONF:1129-28213) such that it
  - a. **SHALL** contain exactly one [1..1] [Antimicrobial Coated Catheter Used Observation](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.217:2014-12-01) (CONF:1129-28214).

**Figure 19: Infection Risk Factors Section in a CLIP Report Example**

```
<section>
  <!-- HAI Generic Section template -->
  < templateId root="2.16.840.1.113883.10.20.5.4.26"/>
  <!-- HAI Infection Risk Factors Section in a CLIP Report template -->
  <templateId root="2.16.840.1.113883.10.20.5.5.34"
    extension="2014-12-01"/>
  <code codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    code="51898-5"
    displayName="Risk Factors Section"/>
  <title> Risk Factors </title>
  ...
  <entry typeCode="DRIV">
    <act moodCode="EVN" classCode="ACT" negationInd="false">
      <!-- C-CDA Procedure Activity Act templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.12" />
      <!-- Central-Line Insertion Practice Clinical Statement (V2) template-->
      <templateId root="2.16.840.1.113883.10.20.5.6.116"
        extension="2014-12-01" />
      ...
    </act>
  </entry>
  <entry typeCode="DRIV">
    <observation moodCode="EVN" classCode="OBS" negationInd="false">
      <!-- Antimicrobial Coated Catheter Used Observation template-->
      <templateId root="2.16.840.1.113883.10.20.5.6.217"
        extension="2014-12-01" />
      ...
    </observation>
  </entry>
</section>
```

### 2.1.17 Infection Risk Factors Section in a Procedure Report

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.5.35 (closed)]

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Release 1 - US Realm

**Table 98: Infection Risk Factors Section in a Procedure Report Contexts**

Contained By:	Contains:
<a href="#">HAI Procedure Denominator Report (V7)</a> (required)	<a href="#">ASA Class Observation</a> (optional) <a href="#">Weight Observation</a> (required) <a href="#">Height Observation</a> (required) <a href="#">Trauma Observation</a> (required) <a href="#">Diabetes Mellitus Observation</a> (required) <a href="#">Procedure Risk Factors Clinical Statement in a Procedure Report</a> (required) <a href="#">Duration of Labor Observation</a> (optional)

In an HAI Procedure Denominator Report, the Infection Risk Factors Section contains procedure risk factors, trauma, diabetes mellitus, height, and weight observations. Optionally contained in this section are ASA class (if the patient is an inpatient) and duration of labor (if the procedure was a Cesarean) observations.

**Table 99: Infection Risk Factors Section in a Procedure Report Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.35)					
templateId	1..1	SHALL		<a href="#">86-22279</a>	
@root	1..1	SHALL		<a href="#">86-22280</a>	2.16.840.1.113883.10.20.5.5.35
code	1..1	SHALL		<a href="#">86-22281</a>	
@code	1..1	SHALL		<a href="#">86-22282</a>	51898-5
@codeSystem	1..1	SHALL		<a href="#">86-28361</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">86-22283</a>	
procedure	1..1	SHALL		<a href="#">86-22284</a>	<a href="#">Procedure Risk Factors Clinical Statement in a Procedure Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.156)</a>
entry	1..1	SHALL		<a href="#">86-22285</a>	
observation	1..1	SHALL		<a href="#">86-22286</a>	<a href="#">Trauma Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.170)</a>
entry	1..1	SHALL		<a href="#">86-22287</a>	
observation	1..1	SHALL		<a href="#">86-22288</a>	<a href="#">Diabetes Mellitus Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.123)</a>
entry	1..1	SHALL		<a href="#">86-22289</a>	
observation	1..1	SHALL		<a href="#">86-22290</a>	<a href="#">Height Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.131)</a>
entry	1..1	SHALL		<a href="#">86-22291</a>	
observation	1..1	SHALL		<a href="#">86-22292</a>	<a href="#">Weight Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.173)</a>
entry	0..1	MAY		<a href="#">86-23211</a>	
observation	1..1	SHALL		<a href="#">86-23212</a>	<a href="#">ASA Class Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.113)</a>
entry	0..1	MAY		<a href="#">86-23214</a>	
observation	1..1	SHALL		<a href="#">86-23215</a>	<a href="#">Duration of Labor Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.127)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22279) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.35" (CONF:86-22280).
3. **SHALL** contain exactly one [1..1] **code** (CONF:86-22281).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51898-5" Risk Factors Section (CONF:86-22282).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:86-28361).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:86-22283) such that it
  - a. **SHALL** contain exactly one [1..1] [Procedure Risk Factors Clinical Statement in a Procedure Report](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.156) (CONF:86-22284).
5. **SHALL** contain exactly one [1..1] **entry** (CONF:86-22285) such that it
  - a. **SHALL** contain exactly one [1..1] [Trauma Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.170) (CONF:86-22286).
6. **SHALL** contain exactly one [1..1] **entry** (CONF:86-22287) such that it
  - a. **SHALL** contain exactly one [1..1] [Diabetes Mellitus Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.123) (CONF:86-22288).
7. **SHALL** contain exactly one [1..1] **entry** (CONF:86-22289) such that it
  - a. **SHALL** contain exactly one [1..1] [Height Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.131) (CONF:86-22290).
8. **SHALL** contain exactly one [1..1] **entry** (CONF:86-22291) such that it
  - a. **SHALL** contain exactly one [1..1] [Weight Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.173) (CONF:86-22292).
9. **MAY** contain zero or one [0..1] **entry** (CONF:86-23211) such that it
  - a. **SHALL** contain exactly one [1..1] [ASA Class Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.113) (CONF:86-23212).
  - b. If the patient is an inpatient (componentOf/encompassingEncounter/code/@code="IMP"), an entry element **SHALL** be present containing an ASA Class Observation (CONF:86-23213).
10. **MAY** contain zero or one [0..1] **entry** (CONF:86-23214) such that it
  - a. **SHALL** contain exactly one [1..1] [Duration of Labor Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.127) (CONF:86-23215).
  - b. If the procedure, recorded in the Details Section of the report, was a Cesarean (code/@code is 2115-4), an entry element **SHALL** be present containing a Duration of Labor Observation (CONF:86-23216).



**Figure 20: Infection Risk Factors Section in Procedure Report Example**

```
<section>
  <!-- HAI Generic Section template -->
  < templateId root="2.16.840.1.113883.10.20.5.4.26"/>
  <!-- HAI Infection Risk Factors Section in a Procedure Report template -->
  <templateId root="2.16.840.1.113883.10.20.5.5.35"/>
  <code codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        code="51898-5"
        displayName="Risk Factors Section"/>
  <title>Risk Factors</title>
  ...
  <entry typeCode="DRIV">
    <procedure classCode="PROC" moodCode="EVN">
      <!-- Procedure Risk Factors Clinical Statement in a Procedure Report template -->
      <templateId root="2.16.840.1.113883.10.20.5.6.156"/>
      ...
    </procedure >
  </entry>

  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- Trauma Observation template -->
      <templateId root="2.16.840.1.113883.10.20.5.6.170"/>
      ...
    </observation>
  </entry>

  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- Diabetes Mellitus Observation template -->
      <templateId root="2.16.840.1.113883.10.20.5.6.123"/>
      ...
    </observation>
  </entry>

  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Vital Sign Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.27"/>
      <!-- Height Observation template -->
      <templateId root="2.16.840.1.113883.10.20.5.6.131"/>
      ...
    </observation>
  </entry>

  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Vital Sign Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.27"/>
      <!-- Weight Observation template -->
      <templateId root="2.16.840.1.113883.10.20.5.6.173"/>
      ...
    </observation>
  </entry>
```

```

<entry typeCode="DRIV">
  <observation classCode="OBS" moodCode="EVN" negationInd="false">
    <!-- C-CDA Problem Observation templateId -->
    <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
    <!-- ASA Class Observation template -->
    <templateId root="2.16.840.1.113883.10.20.5.6.113"/>
    ...
  </observation>
</entry>
<entry typeCode="DRIV">
  <observation classCode="OBS" moodCode="EVN">
    <!-- Duration of Labor Observation template -->
    <templateId root="2.16.840.1.113883.10.20.5.6.127"/>
    ...
  </observation>
</entry>
</section>

```

### 2.1.18 Infection Risk Factors Section in a UTI Report (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.36:2025-05-01  
(closed)]

Draft as part of NHSN Healthcare Associated Infection Reports Release 4, STU  
4 - US Realm

**Table 100: Infection Risk Factors Section in a UTI Report (V2) Contexts**

Contained By:	Contains:
<a href="#">HAI Urinary Tract Infection Numerator Report (UTI) (V7)</a> (required)	<a href="#">Urinary Catheter Observation</a> (required) <a href="#">Neurogenic Bladder Observation</a> (required)

In a UTI Report, the Infection Risk Factors Section contains a Urinary Catheter Observation and a Neurogenic Bladder Observation.

**Table 101: Infection Risk Factors Section in a UTI Report (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.36:2025-05-01)					
templateId	1..1	SHALL		<a href="#">5566-22300</a>	
@root	1..1	SHALL		<a href="#">5566-22301</a>	2.16.840.1.113883.10.20.5.5.36
@extension	1..1	SHALL		<a href="#">5566-31120</a>	2025-05-01
code	1..1	SHALL		<a href="#">5566-22296</a>	
@code	1..1	SHALL		<a href="#">5566-22297</a>	51898-5
@codeSystem	1..1	SHALL		<a href="#">5566-28362</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">5566-22298</a>	
observation	1..1	SHALL		<a href="#">5566-22299</a>	<a href="#">Urinary Catheter Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.171)</a>
entry	1..1	SHALL		<a href="#">5566-31121</a>	
observation	1..1	SHALL		<a href="#">5566-31140</a>	<a href="#">Neurogenic Bladder Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.304:2025-05-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-22300) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.36" (CONF:5566-22301).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-31120).
3. **SHALL** contain exactly one [1..1] **code** (CONF:5566-22296).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51898-5" Risk Factors Section (CONF:5566-22297).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:5566-28362).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:5566-22298) such that it
  - a. **SHALL** contain exactly one [1..1] [Urinary Catheter Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.171) (CONF:5566-22299).
5. **SHALL** contain exactly one [1..1] **entry** (CONF:5566-31121) such that it

- a. **SHALL** contain exactly one [1..1] [Neurogenic Bladder Observation](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.304:2025-05-01) (CONF:5566-31140).

**Figure 21: Infection Risk Factors Section in a UTI Report (V2) Example**

```
<section>
  <!-- HAI Generic section template -->
  < templateId root="2.16.840.1.113883.10.20.5.4.26"/>
  <!-- HAI Infection Risk Factors Section in a UTI Report (V2) template -->
  <templateId root="2.16.840.1.113883.10.20.5.5.36" extension="2025-05-01" />
  <code codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        code="51898-5"
        displayName="Risk Factors Section"/>
  <title>Risk Factors</title>
  ...
  <entry typeCode="DRIV">
    observation classCode="OBS" moodCode="EVN" negationInd="true">
      <!-- C-CDA Problem Observation templateId. -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- HAI Urinary Catheter Observation templateId-->
      <templateId root="2.16.840.1.113883.10.20.5.6.171"/>
      ...
    </observation>
  </entry>
</section>
```

### 2.1.19 Infection Risk Factors Section in an OPC Denominator for Procedure

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.68:2019-04-01 (closed)]

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Release 3, STU 4 - US Realm

**Table 102: Infection Risk Factors Section in an OPC Denominator for Procedure Contexts**

Contained By:	Contains:
<a href="#">Outpatient Procedure Component Denominator for Procedure Report (V6)</a> (required)	<a href="#">ASA Class Observation</a> (optional) <a href="#">Weight Observation</a> (required) <a href="#">Height Observation</a> (required) <a href="#">Diabetes Mellitus Observation</a> (required) <a href="#">Procedure Risk Factors Clinical Statement in a Procedure Report</a> (required)

In an OPC Denominator for Procedure, the Infection Risk Factors Section contains procedure risk factors, ASA class, diabetes mellitus, height, and weight observations.

**Table 103: Infection Risk Factors Section in an OPC Denominator for Procedure Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.68:2019-04-01)					
templateId	1..1	SHALL		<a href="#">4395-30645</a>	
@root	1..1	SHALL		<a href="#">4395-30661</a>	2.16.840.1.113883.10.20.5.5.68
@extension	1..1	SHALL		<a href="#">4395-30664</a>	2019-04-01
code	1..1	SHALL		<a href="#">4395-30646</a>	
@code	1..1	SHALL		<a href="#">4395-30662</a>	51898-5
@codeSystem	1..1	SHALL		<a href="#">4395-30663</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">4395-30647</a>	
procedure	1..1	SHALL		<a href="#">4395-30648</a>	<a href="#">Procedure Risk Factors Clinical Statement in a Procedure Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.156)</a>
entry	1..1	SHALL		<a href="#">4395-30651</a>	
observation	1..1	SHALL		<a href="#">4395-30652</a>	<a href="#">Diabetes Mellitus Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.123)</a>
entry	1..1	SHALL		<a href="#">4395-30653</a>	
observation	1..1	SHALL		<a href="#">4395-30654</a>	<a href="#">Height Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.131)</a>
entry	1..1	SHALL		<a href="#">4395-30655</a>	
observation	1..1	SHALL		<a href="#">4395-30656</a>	<a href="#">Weight Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.173)</a>
entry	0..1	MAY		<a href="#">4395-30657</a>	
observation	1..1	SHALL		<a href="#">4395-30658</a>	<a href="#">ASA Class Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.113)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-30645) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.68" (CONF:4395-30661).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30664).
3. **SHALL** contain exactly one [1..1] **code** (CONF:4395-30646).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51898-5" Risk Factors Section (CONF:4395-30662).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30663).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:4395-30647) such that it
  - a. **SHALL** contain exactly one [1..1] [Procedure Risk Factors Clinical Statement in a Procedure Report](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.156) (CONF:4395-30648).
5. **SHALL** contain exactly one [1..1] **entry** (CONF:4395-30651) such that it
  - a. **SHALL** contain exactly one [1..1] [Diabetes Mellitus Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.123) (CONF:4395-30652).
6. **SHALL** contain exactly one [1..1] **entry** (CONF:4395-30653) such that it
  - a. **SHALL** contain exactly one [1..1] [Height Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.131) (CONF:4395-30654).
7. **SHALL** contain exactly one [1..1] **entry** (CONF:4395-30655) such that it
  - a. **SHALL** contain exactly one [1..1] [Weight Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.173) (CONF:4395-30656).
8. **MAY** contain zero or one [0..1] **entry** (CONF:4395-30657) such that it
  - a. **SHALL** contain exactly one [1..1] [ASA Class Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.113) (CONF:4395-30658).

**Figure 22: Infection Risk Factors Section in an OPC Denominator for Procedure**

```
<section>
  <!-- HAI Generic Section template -->
  < templateId root="2.16.840.1.113883.10.20.5.4.26"/>
  <!-- HAI Infection Risk Factors Section in an OPC Denominator for Procedure -->
  <templateId root="2.16.840.1.113883.10.20.5.5.68" extension="2019-04-01" />
  <code codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        code="51898-5"
        displayName="Risk Factors Section"/>
  <title>Risk Factors</title>
  ...
  <entry typeCode="DRIV">
    <procedure classCode="PROC" moodCode="EVN">
      <!-- Procedure Risk Factors Clinical Statement in a Procedure Report template -->
      <templateId root="2.16.840.1.113883.10.20.5.6.156"/>
      ...
    </procedure >
  </entry>
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- Diabetes Mellitus Observation template -->
      <templateId root="2.16.840.1.113883.10.20.5.6.123"/>
      ...
    </observation>
  </entry>
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Vital Sign Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.27"/>
      <!-- Height Observation template -->
      <templateId root="2.16.840.1.113883.10.20.5.6.131"/>
      ...
    </observation>
  </entry>
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Vital Sign Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.27"/>
      <!-- Weight Observation template -->
      <templateId root="2.16.840.1.113883.10.20.5.6.173"/>
      ...
    </observation>
  </entry>
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- ASA Class Observation template -->
      <templateId root="2.16.840.1.113883.10.20.5.6.113"/>
      ...
    </observation>
  </entry>
</section>
```

### 2.1.20 NHSN Comment Section

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01  
(closed)]

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Release 3, STU 2 - US Realm

**Table 104: NHSN Comment Section Contexts**

Contained By:	Contains:
<a href="#">Healthcare Personnel Influenza Vaccination (HP-FLU) Summary Report</a> (optional) <a href="#">Vascular Access Type Report (VAT) Summary Report (V3)</a> (optional) <a href="#">Outpatient Procedure Component Denominator for Same Day Outcome Measures Report</a> (optional) <a href="#">Antimicrobial Resistance Option (ARO) Summary Report (V3)</a> (optional) <a href="#">Outpatient Procedure Component Denominator for Procedure Report (V6)</a> (optional) <a href="#">HAI Bloodstream Infection Report (BSI) (V9)</a> (optional) <a href="#">Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report (V6)</a> (optional) <a href="#">Late Onset Sepsis/Meningitis Event (LOS) Report (V7)</a> (required) <a href="#">Outpatient Procedure Component Same Day Outcome Measures Event Report (V6)</a> (optional) <a href="#">Outpatient Procedure Surgical Site Infection (SSI) Event Report (V6)</a> (optional) <a href="#">Ventilator Associated Event (VAE) Report (V7)</a> (optional)	<a href="#">NHSN Comment</a> (required)

The NHSN Comment Section contains the NHSN Comment template. This section is not specific to any one report and contains comments that are relevant to the whole report (it is not specific to any section of a report).



**Table 105: NHSN Comment Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01)					
templateId	1..1	SHALL		<a href="#">3311-172</a>	
@root	1..1	SHALL		<a href="#">3311-180</a>	2.16.840.1.113883.10.20.5.5.61
@extension	1..1	SHALL		<a href="#">3311-181</a>	2017-04-01
code	1..1	SHALL		<a href="#">3311-173</a>	
@code	1..1	SHALL		<a href="#">3311-182</a>	86468-6
@codeSystem	1..1	SHALL		<a href="#">3311-183</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">3311-179</a>	
act	1..1	SHALL		<a href="#">3311-184</a>	<a href="#">NHSN Comment (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:3311-172) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.61" (CONF:3311-180).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2017-04-01" (CONF:3311-181).
3. **SHALL** contain exactly one [1..1] **code** (CONF:3311-173).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="86468-6" Report Comment Section (CONF:3311-182).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3311-183).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:3311-179) such that it
  - a. **SHALL** contain exactly one [1..1] [NHSN Comment](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01) (CONF:3311-184).

**Figure 23: NHSN Comment Section Example**

```
<section>
  <!-- HAI Section Generic Constraints -->
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- [HAI R3D2] NHSN Comment Section -->
  <templateId root="2.16.840.1.113883.10.20.5.5.61" extension="2017-04-01" />
  <code code="86468-6"
    displayName="Report comment section"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC" />
  <title>Comment</title>
  <text>...</text>
  <entry typeCode="DRIV">
    <act classCode="ACT" moodCode="EVN">
      <!-- [HAI R3D2] Comment -->
      <templateId root="2.16.840.1.113883.10.20.5.6.243" extension="2017-04-01" />
      ...
    </act>
  </entry>
</section>
```

### 2.1.21 NHSN Social History Section (V4)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.81:2025-05-01  
(open)]

Draft as part of NHSN Healthcare Associated Infection Reports Release 4, STU  
4 - US Realm

**Table 106: NHSN Social History Section (V4) Contexts**

Contained By:	Contains:
<a href="#">HAI Single-Person Report Generic Constraints (V6)</a> (required)	<a href="#">Interpreter Needed Observation</a> (required) <a href="#">Interpreter Used by Patient This Encounter Observation</a> (required) <a href="#">Sex</a> (required)

This section contains social history template Sex and templates dealing with the use of a language interpreter.

**Table 107: NHSN Social History Section (V4) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.81:2025-05-01)					
templateId	1..1	SHALL		<a href="#">5566-3</a>	
@root	1..1	SHALL		<a href="#">5566-17</a>	2.16.840.1.113883.10.20.5.5.81
@extension	1..1	SHALL		<a href="#">5566-18</a>	2025-05-01
code	1..1	SHALL		<a href="#">5566-4</a>	
@code	1..1	SHALL		<a href="#">5566-19</a>	29762-2
@codeSystem	1..1	SHALL		<a href="#">5566-20</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">5566-9</a>	
observation	1..1	SHALL		<a href="#">5566-10</a>	<a href="#">Sex (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.305:2025-05-01)</a>
entry	1..1	SHALL		<a href="#">5566-31057</a>	
observation	1..1	SHALL		<a href="#">5566-31058</a>	<a href="#">Interpreter Needed Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.300:2024-05-01)</a>
entry	1..1	SHALL		<a href="#">5566-31077</a>	
observation	1..1	SHALL		<a href="#">5566-31078</a>	<a href="#">Interpreter Used by Patient This Encounter Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.301:2024-05-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-3) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.81" (CONF:5566-17).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-18).
3. **SHALL** contain exactly one [1..1] **code** (CONF:5566-4).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="29762-2" Social History (CONF:5566-19).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:5566-20).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:5566-9) such that it
  - a. **SHALL** contain exactly one [1..1] [Sex](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.305:2025-05-01) (CONF:5566-10).

5. **SHALL** contain exactly one [1..1] **entry** (CONF:5566-31057) such that it
  - a. **SHALL** contain exactly one [1..1] Interpreter Needed Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.300:2024-05-01) (CONF:5566-31058).
6. **SHALL** contain exactly one [1..1] **entry** (CONF:5566-31077) such that it
  - a. **SHALL** contain exactly one [1..1] Interpreter Used by Patient This Encounter Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.301:2024-05-01) (CONF:5566-31078).

**Figure 24: NHSN Social History Section (V4) Example**

```

<section>
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- [HAI R4D4] NHSN Social History Section (V4) -->
  <templateId extension="2025-05-01" root="2.16.840.1.113883.10.20.5.5.81" />
  <code code="29762-2" codeSystem="2.16.840.1.113883.6.1" displayName="Social History" />
  <title>NHSN Social History Section (V4)</title>
  <text>
    ...
  </text>
  <entry>
    <!-- Sex -->
    <observation classCode="OBS" moodCode="EVN">
      <!-- [HAI R4D4] Sex -->
      <templateId extension="2025-05-01" root="2.16.840.1.113883.10.20.5.6.305" />
      ...
    </observation>
  </entry>
  <!-- Interpreter Required by Patient Observation -->
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- [C-CDA R1.1] Problem Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4" />
      <!-- [HAI R4STU3] Interpreter Required by Patient Observation -->
      <templateId extension="2024-05-01" root="2.16.840.1.113883.10.20.5.6.300" />
      ...
    </observation>
  </entry>
  <!-- Interpreter Used by Patient This Encounter Observation -->
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- [C-CDA R1.1] Problem Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4" />
      <!-- [HAI R4STU3] Interpreter Used by Patient This Encounter Observation -->
      <templateId extension="2024-05-01" root="2.16.840.1.113883.10.20.5.6.301" />
      ...
    </observation>
  </entry>
</section>

```

## 2.1.22 Procedure Details Section in a CLIP Report

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.5.42 (closed)]

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**Table 108: Procedure Details Section in a CLIP Report Contexts**

Contained By:	Contains:
<a href="#">HAI Central-Line Insertion Practice Numerator Report (V7)</a> (required)	<a href="#">Procedure Details Clinical Statement in a CLIP Report</a> (required)

In a CLIP Report, this section records details of the procedure, including the reason for it.

**Table 109: Procedure Details Section in a CLIP Report Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.42)					
templateId	1..1	SHALL		<a href="#">86-22352</a>	
@root	1..1	SHALL		<a href="#">86-22353</a>	2.16.840.1.113883.10.20.5.5.42
code	1..1	SHALL		<a href="#">86-22354</a>	
@code	1..1	SHALL		<a href="#">86-22355</a>	51899-3
@codeSystem	1..1	SHALL		<a href="#">86-28363</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">86-22356</a>	
procedure	1..1	SHALL		<a href="#">86-22357</a>	<a href="#">Procedure Details Clinical Statement in a CLIP Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.155)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22352) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.42" (CONF:86-22353).
3. **SHALL** contain exactly one [1..1] **code** (CONF:86-22354).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51899-3" Details Section (CONF:86-22355).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:86-28363).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:86-22356).

- a. This entry **SHALL** contain exactly one [1..1] [Procedure Details Clinical Statement in a CLIP Report](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.155) (CONF:86-22357).

**Figure 25: Procedure Details Section in a CLIP Report Example**

```
<section>
  <!-- HAI Generic section template -->
  < templateId root="2.16.840.1.113883.10.20.5.4.26"/>
  <!-- HAI Procedure details section in a CLIP report template -->
  <templateId root="2.16.840.1.113883.10.20.5.5.42"/>
  <code codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        code="51899-3"
        displayName="Details Section"/>
  <title>Details</title>
  ...
  <entry typeCode="DRIV">
    <!-- Procedure Details Clinical Statement in a CLIP Report -->
    <procedure moodCode="EVN" classCode="PROC">
      <!-- C-CDA Procedure Activity Procedure templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
      <-- HAI Procedure Details Clinical Statement in a CLIP Report templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.155"/>
      ...
    </procedure >
  </entry>
</section>
```

### 2.1.23 Procedure Details Section in a Procedure Report (V2)

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.5.43.2 (closed)]

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**Table 110: Procedure Details Section in a Procedure Report (V2) Contexts**

Contained By:	Contains:
<a href="#">HAI Procedure Denominator Report (V7)</a> (required)	<a href="#">Procedure Details Clinical Statement in a Procedure Report (V2)</a> (required)

This section records details of the procedure.

**Table 111: Procedure Details Section in a Procedure Report (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.43.2)					
templateId	1..1	SHALL		<a href="#">1101-22358</a>	
@root	1..1	SHALL		<a href="#">1101-30248</a>	2.16.840.1.113883.10.20.5.5.43.2
code	1..1	SHALL		<a href="#">1101-22360</a>	
@code	1..1	SHALL		<a href="#">1101-22361</a>	51899-3
@codeSystem	1..1	SHALL		<a href="#">1101-30314</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">1101-22362</a>	
procedure	1..1	SHALL		<a href="#">1101-30249</a>	<a href="#">Procedure Details Clinical Statement in a Procedure Report (V2) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.153.2)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1101-22358) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.43.2" (CONF:1101-30248).
3. **SHALL** contain exactly one [1..1] **code** (CONF:1101-22360).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51899-3" Details Section (CONF:1101-22361).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1101-30314).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:1101-22362).
  - a. This entry **SHALL** contain exactly one [1..1] [Procedure Details Clinical Statement in a Procedure Report \(V2\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.153.2) (CONF:1101-30249).

**Figure 26: Procedure Details Section in a Procedure Report Example**

```
<section>
  <!-- HAI Generic Section template -->
  < templateId root="2.16.840.1.113883.10.20.5.4.26"/>
  <!-- Procedure Details Section in a Procedure Report (V2) template -->
  <templateId root="2.16.840.1.113883.10.20.5.5.43.2"/>
  <code codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        code="51899-3"
        displayName="Details Section"/>
  <title>Details</title>
  ...
  <entry typeCode="DRIV">
    <!-- Procedure Details Clinical Statement in a Procedure Report (V2) -->
    <procedure classCode="PROC" moodCode="EVN">
      <!-- C-CDA Procedure Activity Procedure templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
      <!-- Procedure Details Clinical Statement in a Procedure Report (V2) templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.153.2"/>
      ...
    </procedure>
  </entry>
</section>
```

2.1.24 Procedure Details Section in an OPC Denominator for Procedure

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.67:2019-04-01  
(closed)]

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**Table 112: Procedure Details Section in an OPC Denominator for Procedure Contexts**

Contained By:	Contains:
<a href="#">Outpatient Procedure Component Denominator for Procedure Report (V6)</a> (required)	<a href="#">Procedure Details in an OPC Denominator for Procedure</a> (required)

This section records details of the procedure.



**Table 113: Procedure Details Section in an OPC Denominator for Procedure Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.67:2019-04-01)					
templateId	1..1	SHALL		<a href="#">4395-30611</a>	
@root	1..1	SHALL		<a href="#">4395-30615</a>	2.16.840.1.113883.10.20.5.5.67
@extension	1..1	SHALL		<a href="#">4395-30618</a>	2019-04-01
code	1..1	SHALL		<a href="#">4395-30612</a>	
@code	1..1	SHALL		<a href="#">4395-30616</a>	51899-3
@codeSystem	1..1	SHALL		<a href="#">4395-30617</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">4395-30613</a>	
procedure	1..1	SHALL		<a href="#">4395-30614</a>	<a href="#">Procedure Details in an OPC Denominator for Procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.259:2019-04-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-30611) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.67" (CONF:4395-30615).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30618).
3. **SHALL** contain exactly one [1..1] **code** (CONF:4395-30612).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51899-3" Details Section (CONF:4395-30616).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30617).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:4395-30613).
  - a. This entry **SHALL** contain exactly one [1..1] [Procedure Details in an OPC Denominator for Procedure](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.259:2019-04-01) (CONF:4395-30614).

**Figure 27: Procedure Details Section in an OPC Denominator for Procedure Example**

```
<section>
  <!-- HAI Generic Section template -->
  < templateId root="2.16.840.1.113883.10.20.5.4.26"/>
  <!-- Procedure Details Section in an OPC Denominator for Procedure -->
  <templateId root="2.16.840.1.113883.10.20.5.5.67" extension="2019-04-01" />
  <code codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        code="51899-3"
        displayName="Details Section"/>
  <title>Details</title>
  ...
  <entry typeCode="DRIV">
    <!-- Procedure Details in an OPC Denominator for Procedure -->
    <procedure classCode="PROC" moodCode="EVN">
      <!-- C-CDA Procedure Activity Procedure templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
      <!-- Procedure Details in an OPC Denominator for Procedure -->
      <templateId root="2.16.840.1.113883.10.20.5.6.259" extension="2019-04-01"/>
      ...
    </procedure>
  </entry>
</section>
```

## 2.1.25 Report No Events Section

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01  
(closed)]

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**Table 114: Report No Events Section Contexts**

Contained By:	Contains:
<a href="#">Neonatal Intensive Care Unit (NICU) Summary Report (V3)</a> (optional) <a href="#">Intensive Care Unit (ICU) Summary Report (V3)</a> (optional) <a href="#">Specialty Care Area (SCA) Summary Report (V3)</a> (optional) <a href="#">Vascular Access Type Report (VAT) Summary Report (V3)</a> (optional) <a href="#">Outpatient Procedure Component Denominator for Same Day Outcome Measures Report</a> (optional) <a href="#">Antimicrobial Resistance Option (ARO) Summary Report (V3)</a> (optional) <a href="#">Prevention Process and Outcome Measures (POM) Summary Report (V4)</a> (optional)	<a href="#">Report No Events</a> (required)

The Report No Events Section contains the Report No Events template. This section is available for use in any report. If this section is present in a report it must contain at least one entry.

**Table 115: Report No Events Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01)					
templateId	1..1	SHALL		<a href="#">3357-30604</a>	
@root	1..1	SHALL		<a href="#">3357-30608</a>	2.16.840.1.113883.10.20.5.5.62
@extension	1..1	SHALL		<a href="#">3357-30609</a>	2018-04-01
code	1..1	SHALL		<a href="#">3357-30605</a>	
@code	1..1	SHALL		<a href="#">3357-30610</a>	90252-8
@codeSystem	1..1	SHALL		<a href="#">3357-30611</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..*	SHALL		<a href="#">3357-30606</a>	
act	1..1	SHALL		<a href="#">3357-30910</a>	<a href="#">Report No Events (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-30604) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.62" (CONF:3357-30608).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2018-04-01" (CONF:3357-30609).
3. **SHALL** contain exactly one [1..1] **code** (CONF:3357-30605).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="90252-8" Report No Events section (CONF:3357-30610).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3357-30611).
4. **SHALL** contain at least one [1..\*] **entry** (CONF:3357-30606) such that it
  - a. **SHALL** contain exactly one [1..1] [Report No Events](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01) (CONF:3357-30910).

**Figure 28: Report No Events Section Example**

```
<section>
  <!-- HAI Section Generic Constraints -->
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- [HAI R3D3] Report No Events Section -->
  <templateId root="2.16.840.1.113883.10.20.5.5.62" extension="2018-04-01" />
  <code codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    code="90252-8"
    displayName="Report No Events Section" />
  <title>Report No Events</title>
  <text>
    <table>
      <tbody>
        <tr>
          <td>Report no infection surveillance events - Methicillin-resistant
Staphylococcus aureus</td>
        </tr>
      </tbody>
    </table>
  </text>
  <entry typeCode="DRIV">
    <act classCode="ACT" moodCode="EVN">
      <!-- [HAI R3D3] Report No Events-->
      <templateId root="2.16.840.1.113883.10.20.5.6.249" extension="2018" />
      ...
    </act>
  </entry>
  ...
</section>
```

## 2.1.26 Risk Factors Section in a LOS/Men Denominator

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.72:2019-04-01  
(closed)]

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**Table 116: Risk Factors Section in a LOS/Men Denominator Contexts**

Contained By:	Contains:
<a href="#">Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report (V6)</a> (required)	<a href="#">Infection Risk Factors Measurement Observation</a> (required) <a href="#">Gestational Age at Birth Observation (V2)</a> (required)

This template represents the risk factors section found in the Late Onset Sepsis / Meningitis Denominator form.

It contains the following elements:

- Birth weight (grams)
- Gestational age (days)

**Table 117: Risk Factors Section in a LOS/Men Denominator Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.72:2019-04-01)					
templateId	1..1	SHALL		<a href="#">4395-30886</a>	
@root	1..1	SHALL		<a href="#">4395-30894</a>	2.16.840.1.113883.10.20.5.5.72
@extension	1..1	SHALL		<a href="#">4395-30895</a>	2019-04-01
code	1..1	SHALL		<a href="#">4395-30889</a>	
@code	1..1	SHALL		<a href="#">4395-30896</a>	51898-5
@codeSystem	1..1	SHALL		<a href="#">4395-30897</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">4395-30887</a>	
observation	1..1	SHALL		<a href="#">4395-30888</a>	<a href="#">Infection Risk Factors Measurement Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.137)</a>
entry	1..1	SHALL		<a href="#">4395-30892</a>	
observation	1..1	SHALL		<a href="#">4395-30893</a>	<a href="#">Gestational Age at Birth Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.255:2019-04-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-30886) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.72" (CONF:4395-30894).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30895).
3. **SHALL** contain exactly one [1..1] **code** (CONF:4395-30889).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51898-5" Risk Factors Section (CONF:4395-30896).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30897).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:4395-30887) such that it

- a. **SHALL** contain exactly one [1..1] Infection Risk Factors Measurement Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.137) (CONF:4395-30888).
5. **SHALL** contain exactly one [1..1] **entry** (CONF:4395-30892) such that it
  - a. **SHALL** contain exactly one [1..1] Gestational Age at Birth Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.255:2019-04-01) (CONF:4395-30893).

**Figure 29: Risk Factors Section In a LOS/Men Denominator**

```

<section>
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- [HAI R3D4] Risk Factors Section in a LOS/Men Denominator -->
  <templateId root="2.16.840.1.113883.10.20.5.5.72" extension="2019-04-01" />
  <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" code="51898-5"
  displayName="Risk Factors" />
  <title>Risk Factors</title>
  <text>
    ...
  </text>
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- [C-CDA R1.1] Vital Sign Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.27" />
      <!-- [HAI] Infection Risk Factors Measurement Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.137" />
      ...
    </observation>
  </entry>
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- [HAI R3D4] Gestational Age Observation (V2) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.255" extension="2019-04-01"/>
      ...
    </observation>
  </entry>
</section>

```

### 2.1.27 Risk Factors Section in a LOS/Men Event (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.65:2019-04-01  
(closed)]

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**Table 118: Risk Factors Section in a LOS/Men Event (V2) Contexts**

Contained By:	Contains:
<a href="#">Late Onset Sepsis/Meningitis Event (LOS) Report (V7)</a> (required)	<a href="#">Infection Risk Factors Measurement Observation</a> (required) <a href="#">Infection Risk Factors Observation</a> (optional) <a href="#">Gestational Age at Birth Observation (V2)</a> (required)

This template represents the risk factors section found in the Late Onset Sepsis / Meningitis Event form.

It contains the following elements:

- Central line present prior to event, including umbilical catheter
- Birth weight (grams)
- Gestational age (days)

**Table 119: Risk Factors Section in a LOS/Men Event (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.65:2019-04-01)					
templateId	1..1	SHALL		<a href="#">4395-30753</a>	
@root	1..1	SHALL		<a href="#">4395-30756</a>	2.16.840.1.113883.10.20.5.5.65
@extension	1..1	SHALL		<a href="#">4395-30757</a>	2019-04-01
code	1..1	SHALL		<a href="#">4395-30758</a>	
@code	1..1	SHALL		<a href="#">4395-30759</a>	51898-5
@codeSystem	1..1	SHALL		<a href="#">4395-30760</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	0..1	MAY		<a href="#">4395-30761</a>	
observation	1..1	SHALL		<a href="#">4395-30762</a>	<a href="#">Infection Risk Factors Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.138)</a>
entry	1..1	SHALL		<a href="#">4395-30754</a>	
observation	1..1	SHALL		<a href="#">4395-30755</a>	<a href="#">Infection Risk Factors Measurement Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.137)</a>
entry	1..1	SHALL		<a href="#">4395-30981</a>	
observation	1..1	SHALL		<a href="#">4395-30982</a>	<a href="#">Gestational Age at Birth Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.255:2019-04-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-30753) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.65" (CONF:4395-30756).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30757).
3. **SHALL** contain exactly one [1..1] **code** (CONF:4395-30758).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51898-5" Risk Factors Section (CONF:4395-30759).



- b. This code **SHALL** contain exactly one [1..1]  
 @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC  
 urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30760).
- 4. **MAY** contain zero or one [0..1] **entry** (CONF:4395-30761) such that it
  - a. **SHALL** contain exactly one [1..1] Infection Risk Factors Observation  
 (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.138) (CONF:4395-30762).
- 5. **SHALL** contain exactly one [1..1] **entry** (CONF:4395-30754) such that it
  - a. **SHALL** contain exactly one [1..1] Infection Risk Factors Measurement Observation  
 (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.137) (CONF:4395-30755).
- 6. **SHALL** contain exactly one [1..1] **entry** (CONF:4395-30981) such that it
  - a. **SHALL** contain exactly one [1..1] Gestational Age at Birth Observation (V2)  
 (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.255:2019-04-01) (CONF:4395-30982).

**Figure 30: Risk Factors Section in a LOS/Men Event (V2) Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- [HAI R3D4] Risk Factors Section in a LOS/Men Event (V2) -->
  <templateId root="2.16.840.1.113883.10.20.5.5.65" extension="2019-04-01" />
  <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" code="51898-5"
displayName="Risk Factors" />
  <title>Risk Factors</title>
  <text>
...
  </text>
  <entry typeCode="DRIV">
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- [C-CDA R1.1] Problem Observation -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4" />
  <!-- [HAI] Infection Risk Factors Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.138" />
  ...
</observation>
</entry>
  <entry typeCode="DRIV">
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- [C-CDA R1.1] Vital Sign Observation -->
  <templateId root="2.16.840.1.113883.10.20.22.4.27" />
  <!-- [HAI] Infection Risk Factors Measurement Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.137" />
  ...
</observation>
</entry>

  <entry typeCode="DRIV">
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- [HAI R3D4] Gestational Age Observation (V2) -->
  <templateId root="2.16.840.1.113883.10.20.5.6.255" extension="2019-04-01"/>
  ...
</observation>
</entry>
</section>
```

### 2.1.28 Risk Factors Section in a VAE Report

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.60:2017-04-01  
(closed)]

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**Table 120: Risk Factors Section in a VAE Report Contexts**

Contained By:	Contains:
<a href="#">Ventilator Associated Event (VAE) Report (V7)</a> (required)	<a href="#">Mechanical Ventilation Initiation Act</a> (required) <a href="#">APRV or Related at Time of VAE Observation</a> (optional)

In a VAE Report, the Risk Factors Section contains a Mechanical Ventilation Initiation Act and an APRV or Related at Time of VAE Observation.

**Table 121: Risk Factors Section in a VAE Report Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.60:2017-04-01)					
templateId	1..1	SHALL		<a href="#">3311-140</a>	
@root	1..1	SHALL		<a href="#">3311-144</a>	2.16.840.1.113883.10.20.5.5.60
@extension	1..1	SHALL		<a href="#">3311-145</a>	2017-04-01
code	1..1	SHALL		<a href="#">3311-139</a>	
@code	1..1	SHALL		<a href="#">3311-142</a>	51898-5
@codeSystem	1..1	SHALL		<a href="#">3311-143</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">3311-138</a>	
act	1..1	SHALL		<a href="#">3311-28394</a>	<a href="#">Mechanical Ventilation Initiation Act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.244:2017-04-01)</a>
entry	0..1	MAY		<a href="#">3311-28395</a>	
observation	1..1	SHALL		<a href="#">3311-28410</a>	<a href="#">APRV or Related at Time of VAE Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.248:2017-04-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:3311-140) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.60" (CONF:3311-144).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2017-04-01" (CONF:3311-145).
3. **SHALL** contain exactly one [1..1] **code** (CONF:3311-139).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51898-5" Risk Factors Section (CONF:3311-142).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3311-143).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:3311-138) such that it
  - a. **SHALL** contain exactly one [1..1] [Mechanical Ventilation Initiation Act](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.244:2017-04-01) (CONF:3311-28394).
5. **MAY** contain zero or one [0..1] **entry** (CONF:3311-28395) such that it

- a. **SHALL** contain exactly one [1..1] [APRV or Related at Time of VAE Observation](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.248:2017-04-01) (CONF:3311-28410).

**Figure 31: Risk Factors Section in a VAE Report Example**

```
<section>
  <!-- HAI Section Generic Constraints -->
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- [HAI R3D2] Risk Factors Section in a VAE Report -->
  <templateId root="2.16.840.1.113883.10.20.5.5.60" extension="2017-04-01" />
  <code codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        code="51898-5"
        displayName="Risk Factors" />
  <title>Risk Factors</title>
  <text>...</text>
  <entry typeCode="DRIV">
    <!-- Contains the mechanical ventilation initiation time and location of where the
initiation took place -->
    <!-- Mechanical Ventilation Initiation Act -->
    <act classCode="ACT" moodCode="EVN">
      <!-- [C-CDA R1.1] Procedure Activity Act -->
      <templateId root="2.16.840.1.113883.10.20.22.4.12" />
      <!-- [HAI] Mechanical Ventilation Initiation Act -->
      <templateId root="2.16.840.1.113883.10.20.5.6.244" extension="2017-04-01" />
      ...
    </act>
  </entry>
  <!-- APRV or Related at Time of VAE Observation is optional -->
  <entry typeCode="DRIV">
    <!-- Setting negationInd="false" indicates that the Patient on Airway Pressure
Release Ventilation (APRV)
or a related mode of mechanical ventilation at the time of VAE -->
    <observation moodCode="EVN" classCode="OBS" negationInd="false">
      <!-- [HAI R3D2] APRV or Related at Time of VAE Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.248" extension="2017-04-01" />
      ...
    </observation>
  </entry>
</section>
```

### 2.1.29 Risk Factors Section in an Evidence of Infection (Dialysis) Report (V5)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.37:2023-12-01 (closed)]

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**Table 122: Risk Factors Section in an Evidence of Infection (Dialysis) Report (V5) Contexts**

Contained By:	Contains:
<a href="#">HAI Evidence of Infection (Dialysis) Report (V11)</a> (required)	<a href="#">Vascular Access Type Observation</a> (required) <a href="#">Dialysis Patient Observation</a> (required) <a href="#">Vascular Access Type Used on Day of Event Observation</a> (required)

In an EOID Report, the Risk Factors Section contains at least one Vascular Access Type Observation for each value in the NHSNVascularAccessTypeCode Value Set. Additional observations record whether a vascular access type other than those listed is present and whether or not the patient is a maintenance hemodialysis patient.

**Table 123: Risk Factors Section in an Evidence of Infection (Dialysis) Report (V5) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.37:2023-12-01)					
templateId	1..1	SHALL		<a href="#">5551-22302</a>	
@root	1..1	SHALL		<a href="#">5551-22303</a>	2.16.840.1.113883.10.20.5.5.37
@extension	1..1	SHALL		<a href="#">5551-31028</a>	2023-12-01
code	1..1	SHALL		<a href="#">5551-22304</a>	
@code	1..1	SHALL		<a href="#">5551-22305</a>	51898-5
@codeSystem	1..1	SHALL		<a href="#">5551-28364</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">5551-22306</a>	
observation	1..1	SHALL		<a href="#">5551-22307</a>	<a href="#">Dialysis Patient Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.125)</a>
entry	6..6	SHALL		<a href="#">5551-22308</a>	
observation	1..1	SHALL		<a href="#">5551-22309</a>	<a href="#">Vascular Access Type Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.172)</a>
entry	1..1	SHALL		<a href="#">5551-31029</a>	
observation	1..1	SHALL		<a href="#">5551-31030</a>	<a href="#">Vascular Access Type Used on Day of Event Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.293:2023-02-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:5551-22302) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.37" (CONF:5551-22303).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2023-12-01" (CONF:5551-31028).
3. **SHALL** contain exactly one [1..1] **code** (CONF:5551-22304).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51898-5" Risk Factors Section (CONF:5551-22305).

- b. This code **SHALL** contain exactly one [1..1]  
@codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC  
urn:oid:2.16.840.1.113883.6.1) (CONF:5551-28364).
- 4. **SHALL** contain exactly one [1..1] **entry** (CONF:5551-22306) such that it
  - a. **SHALL** contain exactly one [1..1] Dialysis Patient Observation (identifier:  
urn:oid:2.16.840.1.113883.10.20.5.6.125) (CONF:5551-22307).
- 5. **SHALL** contain [6..6] **entry** (CONF:5551-22308) such that it
  - a. **SHALL** contain exactly one [1..1] Vascular Access Type Observation  
(identifier: urn:oid:2.16.840.1.113883.10.20.5.6.172) (CONF:5551-  
22309).
- 6. **SHALL** contain exactly one [1..1] **entry** (CONF:5551-31029) such that it
  - a. **SHALL** contain exactly one [1..1] Vascular Access Type Used on Day of Event  
Observation (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.5.6.293:2023-02-01) (CONF:5551-  
31030).

**Figure 32: Risk Factors Section in an Evidence of Infection (Dialysis) Report (V5) Example**

```
<section>
  <!-- HAI Generic Section template -->
  < templateId root="2.16.840.1.113883.10.20.5.4.26"/>
  <!-- HAI Risk Factors Section in an EOID Report (V5) -->
  <templateId root="2.16.840.1.113883.10.20.5.5.37" extension="2023-12-01"/>
  <code codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        code="51898-5"
        displayName=" Risk Factors Section"/>
  <title>Risk Factors</title>
  ...
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Problem Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- HAI Dialysis Patient Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.125"/>
      ...
    </observation>
  </entry>
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Problem Observation Type -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- HAI Vascular Access Type Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.172"/>
      ...
    </observation>
  </entry>
  ...
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Problem Observation Type -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- HAI Vascular Access Type Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.172"/>
      ...
    </observation>
  </entry>
  ...
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Vascular Access Type Used on Day of Event Observation -->
      <templateId root="2.16.840.1.113883.10.20.5" extension="2023-02-01" />
      ...
    </observation>
  </entry>
</section>
```



## 2.1.30 Same Day Outcome Measures Event Details Section

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.66:2019-04-01 (closed)]

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**Table 124: Same Day Outcome Measures Event Details Section Contexts**

Contained By:	Contains:
<a href="#">Outpatient Procedure Component Same Day Outcome Measures Event Report (V6)</a> (required)	<a href="#">Same Day Outcome Measures Organizer (V3)</a> (optional)

In an Outpatient Procedure Component Same Day Outcome Measures Event, the Same Day Outcome Measures Event Details Section contains details about same-day outcome measures events.

**Table 125: Same Day Outcome Measures Event Details Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.66:2019-04-01)					
templateId	1..1	SHALL		<a href="#">4395-30551</a>	
@root	1..1	SHALL		<a href="#">4395-30555</a>	2.16.840.1.113883.10.20.5.5.66
@extension	1..1	SHALL		<a href="#">4395-30558</a>	2019-04-01
code	1..1	SHALL		<a href="#">4395-30552</a>	
@code	1..1	SHALL		<a href="#">4395-30556</a>	51899-3
@codeSystem	1..1	SHALL		<a href="#">4395-30557</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	0..*	SHOULD		<a href="#">4395-30549</a>	
organizer	0..1	SHOULD		<a href="#">4395-30550</a>	<a href="#">Same Day Outcome Measures Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.212:2019-04-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-30551) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.66" (CONF:4395-30555).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30558).
3. **SHALL** contain exactly one [1..1] **code** (CONF:4395-30552).

- a. This code **SHALL** contain exactly one [1..1] @code="51899-3" Event Details (CONF:4395-30556).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30557).
4. **SHOULD** contain zero or more [0..\*] entry (CONF:4395-30549) such that it
  - a. **SHOULD** contain zero or one [0..1] [Same Day Outcome Measures Organizer \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.212:2019-04-01) (CONF:4395-30550).

**Figure 33: Same Day Outcome Measures Event Details Section Example**

```
<section>
  <!-- HAI Generic section templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- Same Day Outcome Measures Event Details Section -->
  <templateId root="2.16.840.1.113883.10.20.5.5.66" extension="2019-04-01" />
  <code codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        code="51899-3"
        displayName="Event Details" />
  <title>Same Day Outcome Measures Event Details</title>
  ...
  <entry typeCode="DRIV">
    <!-- Same Day Outcome Measure Organizer (V3)-->
    <organizer classCode="CLUSTER" moodCode="EVN">
      <!-- Same Day Outcome Measure Organizer templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.212" extension="2019-04-01" />
      ...
    </organizer>
  </entry>
</section>
```

### 2.1.31 Summary Data Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.5.47 (closed)]

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Release 1 - US Realm

**Table 126: Summary Data Section Contexts**

Contained By:	Contains:
<a href="#">Intensive Care Unit (ICU) Summary Report (V3)</a> (required) <a href="#">Specialty Care Area (SCA) Summary Report (V3)</a> (required) <a href="#">Outpatient Procedure Component Denominator for Same Day Outcome Measures Report</a> (required)	<a href="#">Summary Encounter</a> (required)

The Summary Data Section is used in a population summary report. The specific counts to be reported in the Summary Data Section vary by report topic, but the section itself conveys the same kind of information wherever used; therefore, the section is represented by the same LOINC section code whatever the data reported.

The Summary Encounter requires a participant representing the facility or in-facility location to which the data pertain. Most summary reports contain data for a single location. To report data for more than one location, use a separate Summary Encounter element for each. For example, a POM report typically reports data for an in-facility location, but under some circumstances the NHSN protocol also requires facility-wide data. Use one Summary Encounter to report the data for the in-facility location, and a separate Summary Encounter to report the facility-wide data.

If the data in a population summary report are categorized--as, for example, data on a NICU population are categorized by patient birth weight--each category is represented by a separate Summary Encounter element. If there is no categorization, the report concerns a group that has only one category and it therefore will contain only one Summary Data Encounter element. This is the usual case.

**Table 127: Summary Data Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.47)					
templateId	1..1	SHALL		<a href="#">86-22386</a>	
@root	1..1	SHALL		<a href="#">86-22387</a>	2.16.840.1.113883.10.20.5.5.47
code	1..1	SHALL		<a href="#">86-22388</a>	
@code	1..1	SHALL		<a href="#">86-22389</a>	51900-9
@codeSystem	1..1	SHALL		<a href="#">86-28365</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..*	SHALL		<a href="#">86-22390</a>	
encounter	1..1	SHALL		<a href="#">86-22391</a>	<a href="#">Summary Encounter (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.184)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22386) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.47" (CONF:86-22387).
3. **SHALL** contain exactly one [1..1] **code** (CONF:86-22388).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51900-9" Summary Data Section (CONF:86-22389).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:86-28365).

4. **SHALL** contain at least one [1..\*] **entry** (CONF:86-22390).
  - a. Such entries **SHALL** contain exactly one [1..1] [Summary Encounter](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.184) (CONF:86-22391).

**Figure 34: Summary Data Section Example**

```
<section>
  <!-- HAI Generic Section template -->
  < templateId root="2.16.840.1.113883.10.20.5.4.26"/>
  <!-- HAI Summary Data Section template -->
  <templateId root="2.16.840.1.113883.10.20.5.5.47"/>
  <code codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        code="51900-9"
        displayName="Summary Data Section"/>
  ...
  <entry typeCode="DRIV">
    <encounter classCode="ENC" moodCode="EVN">
      <!-- HAI Summary Encounter template -->
      <templateId root="2.16.840.1.113883.10.20.5.5.184"/>
      ...
    </encounter>
  </entry>

  <entry typeCode="DRIV">
    <encounter>
      ...
    </encounter>
  </entry>
</section>
```

### 2.1.32 Summary Data Section (ARO) (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.52:2019-04-01  
(closed)]

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Release 3, STU 4 – US Realm

**Table 128: Summary Data Section (ARO) (V3) Contexts**

Contained By:	Contains:
<a href="#">Antimicrobial Resistance Option (ARO) Summary Report [V3]</a> (required)	<a href="#">Summary Encounter (ARO) [V3]</a> (required)

The Summary Data Section is used in a population summary report. The specific counts to be reported in the Summary Data Section vary by report topic, but the section itself conveys the same kind of information wherever used; therefore, the section is represented by the same LOINC section code whatever the data reported.

The Summary Data Section (ARO) extends its generic equivalent, but is specific to the Antimicrobial Resistance Option (ARO) Summary Report.

**Table 129: Summary Data Section (ARO) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.52:2019-04-01)					
templateId	1..1	SHALL		<a href="#">4395-23070</a>	
@root	1..1	SHALL		<a href="#">4395-23071</a>	2.16.840.1.113883.10.20.5.5.52
@extension	1..1	SHALL		<a href="#">4395-30920</a>	2019-04-01
code	1..1	SHALL		<a href="#">4395-23072</a>	
@code	1..1	SHALL		<a href="#">4395-23073</a>	51900-9
@codeSystem	1..1	SHALL		<a href="#">4395-28366</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..*	SHALL		<a href="#">4395-23074</a>	
encounter	1..1	SHALL		<a href="#">4395-23075</a>	<a href="#">Summary Encounter (ARO) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.199:2019-04-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-23070) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.52" (CONF:4395-23071).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30920).
3. **SHALL** contain exactly one [1..1] **code** (CONF:4395-23072).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51900-9" Summary Data Section (CONF:4395-23073).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-28366).
4. **SHALL** contain at least one [1..\*] **entry** (CONF:4395-23074).
  - a. Such entries **SHALL** contain exactly one [1..1] [Summary Encounter \(ARO\) \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.199:2019-04-01) (CONF:4395-23075).

**Figure 35: Summary Data Section (ARO) (V3) Example**

```
<section>
  <!-- HAI Generic Section template -->
  < templateId root="2.16.840.1.113883.10.20.5.4.26"/>
  <!-- HAI Summary Data Section (ARO) template (V3) -->
  <templateId root="2.16.840.1.113883.10.20.5.5.52"
    extension="2019-04-01"/>
  <code codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    code="51900-9"
    displayName="Summary Data Section"/>
  ...
  <entry>
    <encounter classCode="ENC" moodCode="EVN">
      <!-- HAI Summary Encounter (ARO) (V3) template -->
      <templateId root="2.16.840.1.113883.10.20.5.6.199"
        extension="2019-04-01"/>
      ...
    </encounter>
  </entry>
</section>
```

### 2.1.33 Summary Data Section (AUP) (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.51:2015-04-01  
(closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
Release 2 - US Realm

**Table 130: Summary Data Section (AUP) (V2) Contexts**

Contained By:	Contains:
<a href="#">Antimicrobial Use (AUP) Summary Report (V2)</a> (required)	<a href="#">Summary Encounter Patient Presence (AUP) (V2)</a> (required) <a href="#">Summary Encounter (AUP) (V2)</a> (required)

The Summary Data Section is used in a population summary report. The specific counts to be reported in the Summary Data Section vary by report topic, but the section itself conveys the same kind of information wherever used; therefore, the section is represented by the same LOINC section code whatever the data reported.

The Summary Data Section (AUP) extends its generic equivalent but is specific to the Antimicrobial Use (AUP) Summary Report.

**Table 131: Summary Data Section (AUP) (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.51:2015-04-01)					
templateId	1..1	SHALL		<a href="#">1181-23013</a>	
@root	1..1	SHALL		<a href="#">1181-23014</a>	2.16.840.1.113883.10.20.5.5.51
@extension	1..1	SHALL		<a href="#">1181-30565</a>	2015-04-01
code	1..1	SHALL		<a href="#">1181-23015</a>	
@code	1..1	SHALL		<a href="#">1181-23016</a>	51900-9
@codeSystem	1..1	SHALL		<a href="#">1181-28367</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">1181-23017</a>	
encounter	1..1	SHALL		<a href="#">1181-23018</a>	<a href="#">Summary Encounter Patient Presence (AUP) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.197:2015-04-01)</a>
entry	1..*	SHALL		<a href="#">1181-23046</a>	
encounter	1..1	SHALL		<a href="#">1181-23047</a>	<a href="#">Summary Encounter (AUP) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.198:2015-04-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1181-23013) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.51" (CONF:1181-23014).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2015-04-01" (CONF:1181-30565).
3. **SHALL** contain exactly one [1..1] **code** (CONF:1181-23015).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51900-9" Summary Data Section (CONF:1181-23016).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1181-28367).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:1181-23017) such that it
  - a. **SHALL** contain exactly one [1..1] [Summary Encounter Patient Presence \(AUP\) \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.197:2015-04-01) (CONF:1181-23018).

5. **SHALL** contain at least one [1..\*] **entry** (CONF:1181-23046) such that it
- a. **SHALL** contain exactly one [1..1] Summary Encounter (AUP) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.198:2015-04-01) (CONF:1181-23047).

**Figure 36: Summary Data Section (AUP) (V2)**

```
<section>
  <!-- HAI Generic Section template -->
  < templateId root="2.16.840.1.113883.10.20.5.4.26"/>
  <!-- HAI Summary Data Section (AUP) (V2) template -->
  <templateId root="2.16.840.1.113883.10.20.5.5.51"
    extension="2015-01-04"/>
  <code codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    code="51900-9"
    displayName="Summary Data Section"/>
  ...
  <entry>
    <encounter classCode="ENC" moodCode="EVN">
      <!-- HAI Summary Encounter Patient Presence (AUP) (V2) template -->
      <templateId root="2.16.840.1.113883.10.20.5.6.197"
        extension="2015-01-04"/>
      ...
    </encounter>
  </entry>
  <entry>
    <encounter classCode="ENC" moodCode="EVN">
      <!-- HAI Summary Encounter (AUP) (V2) template -->
      <templateId root="2.16.840.1.113883.10.20.5.6.198"
        extension="2015-01-04"/>
      ...
    </encounter>
  </entry>

  <entry>
    <encounter>
      ...
    </encounter>
  </entry>
</section>
```



### 2.1.34 Summary Data Section (HP-FLU)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.58:2017-04-01  
(closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
Release 3, STU 2 - US Realm

**Table 132: Summary Data Section (HP-FLU) Contexts**

Contained By:	Contains:
<a href="#">Healthcare Personnel Influenza Vaccination (HP-FLU) Summary Report</a> (required)	<a href="#">Summary Encounter (HP-FLU)</a> (required) <a href="#">Vaccination Type Observation</a> (required)

The Summary Data Section is used in a population summary report. The specific counts to be reported in the Summary Data Section vary by report topic, but the section itself conveys the same kind of information wherever it is used; therefore, the section is represented by the same LOINC section code whatever the data reported.

The HP-FLU report extends the simple pattern for Summary Encounter. This report is stratified by healthcare personnel (HCP) type. Each type is recorded in a separate Summary Encounter (HP-FLU) within the Summary Data Section (HP-FLU). The HCP type is recorded as a participant in the encounter, in addition to the location participant that is required in all Summary Encounters.

**Table 133: Summary Data Section (HP-FLU) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.58:2017-04-01)					
templateId	1..1	SHALL		<a href="#">3311-18</a>	
@root	1..1	SHALL		<a href="#">3311-21</a>	2.16.840.1.113883.10.20.5.5.58
@extension	1..1	SHALL		<a href="#">3311-24</a>	2017-04-01
code	1..1	SHALL		<a href="#">3311-19</a>	
@code	1..1	SHALL		<a href="#">3311-22</a>	51900-9
@codeSystem	1..1	SHALL		<a href="#">3311-23</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">3311-17</a>	
observation	1..1	SHALL		<a href="#">3311-28415</a>	<a href="#">Vaccination Type Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.242:2017-04-01)</a>
entry	1..*	SHALL		<a href="#">3311-75</a>	
encounter	1..1	SHALL		<a href="#">3311-28413</a>	<a href="#">Summary Encounter (HP-FLU) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.241:2017-04-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:3311-18) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.58" (CONF:3311-21).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2017-04-01" (CONF:3311-24).
3. **SHALL** contain exactly one [1..1] **code** (CONF:3311-19).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51900-9" Summary Data Section (CONF:3311-22).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3311-23).
4. **SHALL** contain exactly one [1..1] **entry** (CONF:3311-17) such that it
  - a. **SHALL** contain exactly one [1..1] [Vaccination Type Observation](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.242:2017-04-01) (CONF:3311-28415).
5. **SHALL** contain at least one [1..\*] **entry** (CONF:3311-75) such that it
  - a. **SHALL** contain exactly one [1..1] [Summary Encounter \(HP-FLU\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.241:2017-04-01) (CONF:3311-28413).

**Figure 37: Summary Data Section (HP-FLU) Example**

```
<section>
  <!-- HAI Section Generic Constraints -->
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- [HAI R3D2] Summary Data Section (HP-FLU) -->
  <templateId root="2.16.840.1.113883.10.20.5.5.58" extension="2017-04-01" />
  <code codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        code="51900-9"
        displayName="Summary Section" />
  <title>Summary Data</title>
  <text>...</text>
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN">
      <!-- [HAI R3D2] Vaccination Type Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.242" extension="2017-04-01" />
      ...
    </observation>
  </entry>
  <!-- Employees (staff on facility payroll) -->
  <entry typeCode="DRIV">
    <encounter classCode="ENC" moodCode="EVN">
      <!-- [HAI R3D2] Summary Encounter (HP-FLU) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.241" extension="2017-04-01" />
      ...
    </encounter>
  </entry>
  <!-- Licensed independent practitioners -->
  <entry typeCode="DRIV">
    <encounter classCode="ENC" moodCode="EVN">
      <!-- [HAI R3D2] Summary Encounter (HP-FLU) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.241" extension="2017-04-01" />
      ...
    </encounter>
  </entry>
  <!-- Adult students/trainees & volunteers -->
  <entry typeCode="DRIV">
    <encounter classCode="ENC" moodCode="EVN">
      <!-- [HAI R3D2] Summary Encounter (HP-FLU) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.241" extension="2017-04-01" />
      ...
    </encounter>
  </entry>
  <!-- Other contract personnel -->
  <entry typeCode="DRIV">
    <encounter classCode="ENC" moodCode="EVN">
      <!-- [HAI R3D2] Summary Encounter (HP-FLU) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.241" extension="2017-04-01" />
      ...
    </encounter>
  </entry>
</section>
```

### 2.1.35 Summary Data Section (HV) (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.57:2016-08-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, DSTU 1.1 - US Realm

**Table 134: Summary Data Section (HV) (V2) Contexts**

Contained By:	Contains:
<a href="#">Hemovigilance (HV) Summary Report (V2)</a> (required)	<a href="#">No Hemovigilance Adverse Reactions Reported This Month Observation</a> (required) <a href="#">No Hemovigilance Incidents Reported This Month Observation</a> (required) <a href="#">Summary Encounter (HV) (V2)</a> (required)

The Summary Data Section is used in a population summary report. The specific counts to be reported in the Summary Data Section vary by report topic, but the section itself conveys the same kind of information wherever used; therefore, the section is represented by the same LOINC section code whatever the data reported.

The Summary Data Section (HV) extends its generic equivalent but is specific to the HAI Hemovigilance (HV) Summary Report.

**Table 135: Summary Data Section (HV) (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.57:2016-08-01)					
templateId	1..1	SHALL		<a href="#">3247-30615</a>	
@root	1..1	SHALL		<a href="#">3247-30619</a>	2.16.840.1.113883.10.20.5.5.57
@extension	1..1	SHALL		<a href="#">3247-30620</a>	2016-08-01
code	1..1	SHALL		<a href="#">3247-30616</a>	
@code	1..1	SHALL		<a href="#">3247-30621</a>	51900-9
@codeSystem	1..1	SHALL		<a href="#">3247-30622</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..1	SHALL		<a href="#">3247-30614</a>	
observation	1..1	SHALL		<a href="#">3247-30685</a>	<a href="#">No Hemovigilance Adverse Reactions Reported This Month Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.232:2015-10-01)</a>
entry	1..*	SHALL		<a href="#">3247-30617</a>	
observation	1..1	SHALL		<a href="#">3247-30686</a>	<a href="#">No Hemovigilance Incidents Reported This Month Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.233:2015-10-01)</a>
entry	1..*	SHALL		<a href="#">3247-30736</a>	
encounter	1..1	SHALL		<a href="#">3247-30737</a>	<a href="#">Summary Encounter (HV) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.234:2016-08-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:3247-30615) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.57" (CONF:3247-30619).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2016-08-01" (CONF:3247-30620).
3. **SHALL** contain exactly one [1..1] **code** (CONF:3247-30616).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51900-9" Summary Data Section (CONF:3247-30621).

- b. This code **SHALL** contain exactly one [1..1]  
@codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC  
urn:oid:2.16.840.1.113883.6.1) (CONF:3247-30622).
- 4. **SHALL** contain exactly one [1..1] **entry** (CONF:3247-30614) such that it
  - a. **SHALL** contain exactly one [1..1] No Hemovigilance Adverse Reactions Reported This Month Observation (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.5.6.232:2015-10-01) (CONF:3247-30685).
- 5. **SHALL** contain at least one [1..\*] **entry** (CONF:3247-30617) such that it
  - a. **SHALL** contain exactly one [1..1] No Hemovigilance Incidents Reported This Month Observation (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.5.6.233:2015-10-01) (CONF:3247-30686).
- 6. **SHALL** contain at least one [1..\*] **entry** (CONF:3247-30736) such that it
  - a. **SHALL** contain exactly one [1..1] Summary Encounter (HV) (V2) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.5.6.234:2016-08-01) (CONF:3247-30737).

**Figure 38: Summary Data Section (HV) (V2) Example**

```
<section>
  <!-- [HAI R1] HAI Section Generic Constraints -->
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <!-- [HAI R3D1.1] Summary Data Section (HV) (V2) -->
  <templateId root="2.16.840.1.113883.10.20.5.5.57"
    extension="2016-08-01" />
  <code codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC" code="51900-9"
    displayName="Summary Data Section" />
  <title>Summary Data</title>
  <text>...</text>
  <entry typeCode="DRIV">
    <!-- No Adverse Reactions Reported This Month Observation -->
    <observation classCode="OBS" moodCode="EVN"
      negationInd="false">
      <!-- [HAI R3D1] No Adverse Reactions Reported This Month Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.232"
        extension="2015-10-01"
        />
      ...
    </observation>
  </entry>
  <entry typeCode="DRIV">
    <!-- No Incidents Reported This Month Observation -->
    <observation classCode="OBS" moodCode="EVN"
      negationInd="true">
      <!-- [HAI R3D1] No Incidents Reported This Month Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.233"
        extension="2015-10-01"
        />
      ...
    </observation>
  </entry>
  <entry typeCode="DRIV">
    <encounter classCode="ENC" moodCode="EVN">
      <!-- [HAI R3D1.1] Summary Encounter (HV) (V2) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.234"
        extension="2016-08-01" />
      ...
    </encounter>
  </entry>
</section>
```

### 2.1.36 Summary Data Section (NICU) (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.48:2018-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 3 - US Realm

**Table 136: Summary Data Section (NICU) (V2) Contexts**

Contained By:	Contains:
<a href="#">Neonatal Intensive Care Unit (NICU) Summary Report [V3]</a> (required)	<a href="#">Summary Encounter (NICU)</a> (required)

The Summary Data Section is used in a population summary report. The specific counts to be reported in the Summary Data Section vary by report topic, but the section itself conveys the same kind of information wherever used; therefore, the section is represented by the same LOINC section code whatever the data reported.

The NICU Report extends the simple pattern for Summary Encounter. This report is stratified by birth weight. Each category is recorded in a separate Summary Encounter (NICU) within the Summary Data Section (NICU). The category is recorded as a participant in the encounter, in addition to the location participant that is required in all Summary Encounters.

**Table 137: Summary Data Section (NICU) (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.48:2018-04-01)					
templateId	1..1	SHALL		<a href="#">3357-22837</a>	
@root	1..1	SHALL		<a href="#">3357-22838</a>	2.16.840.1.113883.10.20.5.5.48
@extension	1..1	SHALL		<a href="#">3357-30598</a>	2018-04-01
code	1..1	SHALL		<a href="#">3357-22839</a>	
@code	1..1	SHALL		<a href="#">3357-22840</a>	51900-9
@codeSystem	1..1	SHALL		<a href="#">3357-28368</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..*	SHALL		<a href="#">3357-22841</a>	
encounter	1..1	SHALL		<a href="#">3357-22842</a>	<a href="#">Summary Encounter (NICU) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.191)</a>



1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-22837) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.48" (CONF:3357-22838).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2018-04-01" (CONF:3357-30598).
3. **SHALL** contain exactly one [1..1] **code** (CONF:3357-22839).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51900-9" Summary Data Section (CONF:3357-22840).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3357-28368).
4. **SHALL** contain at least one [1..\*] **entry** (CONF:3357-22841) such that it
  - a. **SHALL** contain exactly one [1..1] [Summary Encounter \(NICU\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.191) (CONF:3357-22842).

**Figure 39: Summary Data Section (NICU) Example**

```

<section>
  <!-- HAI Generic Section template -->
  < templateId root="2.16.840.1.113883.10.20.5.4.26"/>
  <!-- HAI Summary Data Section (NICU) template -->
  <templateId root="2.16.840.1.113883.10.20.5.5.48"/>
  <code codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        code="51900-9"
        displayName="Summary Data Section"/>
  ...
  <entry typeCode="DRIV">
    <encounter classCode="ENC" moodCode="EVN">
      <!-- HAI Summary Encounter (NICU) template -->
      <templateId root="2.16.840.1.113883.10.20.5.6.191"/>
      ...
    </encounter>
  </entry>
</section>

```

### 2.1.37 Summary Data Section (POM) (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.49:2022-04-01  
(closed)]

Published as part of NHSN Healthcare Associated Infection Reports Release 4,  
STU 2 - US Realm

**Table 138: Summary Data Section (POM) (V3) Contexts**

Contained By:	Contains:
<a href="#">Prevention Process and Outcome Measures (POM)</a> <a href="#">Summary Report (V4)</a> (required)	<a href="#">Summary Encounter (POM)</a> (required) <a href="#">Primary C. Difficile Testing Method This Quarter</a> (optional) <a href="#">Inpatient Rehabilitation (IRF) Unit in Facility</a> (optional) <a href="#">Inpatient Psychiatric (IPF) Unit in Facility</a> (optional)

The Summary Data Section is used in a population summary report. The specific counts to be reported in the Summary Data Section vary by report topic, but the section itself conveys the same kind of information wherever used; therefore, the section is represented by the same LOINC section code whatever the data reported.

The POM Summary report typically reports data for an in-facility location, but under some circumstances the NHSN protocol also requires facility-wide data. Use one Summary Encounter (POM) to report the data for the in-facility location and a separate Summary Encounter (POM) to report the facility-wide data. For facility-wide reporting, at the end of each quarter, the NHSN protocol requires the primary C. difficile testing method used most often. This section also contains information about whether the facility contains CMS-certified Inpatient Rehabilitation (IRF) and/or Inpatient Psychiatric (IPF) units.

**Table 139: Summary Data Section (POM) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.49:2022-04-01)					
templateId	1..1	SHALL		<a href="#">4523-22880</a>	
@root	1..1	SHALL		<a href="#">4523-22881</a>	2.16.840.1.113883.10.20.5.5.49
@extension	1..1	SHALL		<a href="#">4523-30477</a>	2022-04-01
code	1..1	SHALL		<a href="#">4523-22882</a>	
@code	1..1	SHALL		<a href="#">4523-22883</a>	51900-9
@codeSystem	1..1	SHALL		<a href="#">4523-30602</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..*	SHALL		<a href="#">4523-22884</a>	
encounter	1..1	SHALL		<a href="#">4523-22885</a>	<a href="#">Summary Encounter (POM) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.193)</a>
entry	0..1	SHOULD		<a href="#">4523-30333</a>	
observation	1..1	SHALL		<a href="#">4523-30334</a>	<a href="#">Primary C. Difficile Testing Method This Quarter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.221:2014-12-01)</a>
entry	0..1	SHOULD		<a href="#">4523-31022</a>	
observation	1..1	SHALL		<a href="#">4523-31023</a>	<a href="#">Inpatient Rehabilitation (IRF) Unit in Facility (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.271:2022-04-01)</a>
entry	0..1	SHOULD		<a href="#">4523-31024</a>	
observation	1..1	SHALL		<a href="#">4523-31025</a>	<a href="#">Inpatient Psychiatric (IPF) Unit in Facility (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.272:2022-04-01)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4523-22880) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.49" (CONF:4523-22881).

- b. **SHALL** contain exactly one [1..1] **@extension**="2022-04-01" (CONF:4523-30477).
- 3. **SHALL** contain exactly one [1..1] **code** (CONF:4523-22882).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51900-9" Summary Data Section (CONF:4523-22883).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4523-30602).
- 4. **SHALL** contain at least one [1..\*] **entry** (CONF:4523-22884) such that it
  - a. **SHALL** contain exactly one [1..1] Summary Encounter (POM) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.193) (CONF:4523-22885).

Required per NHSN Protocol only if location is facility-wide and month is March, June, September, or December.

- 5. **SHOULD** contain zero or one [0..1] **entry** (CONF:4523-30333) such that it
  - a. **SHALL** contain exactly one [1..1] Primary C. Difficile Testing Method This Quarter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.221:2014-12-01) (CONF:4523-30334).

Required per NHSN Protocol only if location is facility-wide and month is March, June, September, or December.

- 6. **SHOULD** contain zero or one [0..1] **entry** (CONF:4523-31022) such that it
  - a. **SHALL** contain exactly one [1..1] Inpatient Rehabilitation (IRF) Unit in Facility (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.271:2022-04-01) (CONF:4523-31023).

Required per NHSN Protocol only if location is facility-wide and month is March, June, September, or December.

- 7. **SHOULD** contain zero or one [0..1] **entry** (CONF:4523-31024) such that it
  - a. **SHALL** contain exactly one [1..1] Inpatient Psychiatric (IPF) Unit in Facility (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.272:2022-04-01) (CONF:4523-31025).

**Figure 40: Summary Data Section (POM) (V3) Example**

```
<section>
  <templateId root="2.16.840.1.113883.10.20.5.4.26" />
  <templateId root="2.16.840.1.113883.10.20.5.5.49" extension="2022-04-01" />
  <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" code="51900-9"
displayName="Summary Section" />
  <title>Summary Data</title>
  <text>
    ...
  </text>
  <entry typeCode="DRIV">
    <encounter classCode="ENC" moodCode="EVN">
      <!-- Summary Encounter (POM) (R1) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.193" />
      ...
    </encounter>
  </entry>
  <entry typeCode="DRIV">
    <!-- Primary C. Difficile Testing Method This Quarter -->
    <observation classCode="OBS" moodCode="EVN">
      <!-- Primary C. Difficile Testing Method This Quarter -->
      <templateId root="2.16.840.1.113883.10.20.5.6.221" extension="2014-12-01" />
      ...
    </observation>
  </entry>
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- Inpatient Rehabilitation (IRF) Unit in Facility -->
      <templateId root="2.16.840.1.113883.10.20.5.6.271" extension="2022-04-01" />
      ...
    </observation>
  </entry>
  <entry>
    <observation classCode="OBS" moodCode="EVN" negationInd="true">
      <!-- Inpatient Psychiatric (IPF) Unit in Facility -->
      <templateId root="2.16.840.1.113883.10.20.5.6.272" extension="2022-04-01" />
      ...
    </observation>
  </entry>
</section>
```

### 2.1.38 Summary Data Section (VAT)

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.5.50 (closed)]

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**Table 140: Summary Data Section (VAT) Contexts**

Contained By:	Contains:
<a href="#">Vascular Access Type Report (VAT) Summary Report [V3]</a> (required)	<a href="#">Summary Encounter (VAT)</a> (required)

The Summary Data Section is used in a population summary report. The specific counts to be reported in the Summary Data Section vary by report topic, but the section itself conveys the same kind of information wherever used; therefore, the section is represented by the same LOINC section code whatever the data reported.

The Summary Data Section (VAT) extends its generic equivalent but, is specific to the Vascular Access Type Report (VAT) Summary Report.

**Table 141: Summary Data Section (VAT) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.50)					
templateId	1..1	SHALL		<a href="#">86-22945</a>	
@root	1..1	SHALL		<a href="#">86-22946</a>	2.16.840.1.113883.10.20.5.5.50
code	1..1	SHALL		<a href="#">86-22947</a>	
@code	1..1	SHALL		<a href="#">86-22948</a>	51900-9
@codeSystem	1..1	SHALL		<a href="#">86-28369</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entry	1..*	SHALL		<a href="#">86-22949</a>	
encounter	1..1	SHALL		<a href="#">86-22950</a>	<a href="#">Summary Encounter (VAT) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.196)</a>

1. Conforms to [HAI Section Generic Constraints](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22945) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.5.50" (CONF:86-22946).
3. **SHALL** contain exactly one [1..1] **code** (CONF:86-22947).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="51900-9" Summary Data Section (CONF:86-22948).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:86-28369).
4. **SHALL** contain at least one [1..\*] **entry** (CONF:86-22949).
  - a. Such entries **SHALL** contain exactly one [1..1] [Summary Encounter \(VAT\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.196) (CONF:86-22950).

**Figure 41: Summary Data Section (VAT) Example**

```
<section>
  <!-- HAI Generic Section template -->
  < templateId root="2.16.840.1.113883.10.20.5.4.26"/>
  <!-- HAI Summary Data Section (VAT) template -->
  <templateId root="2.16.840.1.113883.10.20.5.5.50"/>
  <code codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        code="51900-9"
        displayName="Summary Data Section"/>
  ...
  <entry typeCode="DRIV">
    <encounter classCode="ENC" moodCode="EVN">
      <!-- HAI Summary Encounter (VAT) template -->
      <templateId root="2.16.840.1.113883.10.20.5.6.196"/>
      ...
    </encounter>
  </entry>
</section>
```

### 3 ENTRY-LEVEL TEMPLATES

#### 3.1 Anesthesia Administration Clinical Statement

[substanceAdministration: identifier urn:oid:2.16.840.1.113883.10.20.5.6.112 (closed)]

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**Table 142: Anesthesia Administration Clinical Statement Contexts**

Contained By:	Contains:
<a href="#">Procedure Details Clinical Statement in a Procedure Report (V2)</a> (required) <a href="#">Procedure Details in an OPC Denominator for Procedure</a> (required)	

This clinical statement reports whether anesthesia was administered.  
If anesthesia was not administered, set the value of @negationInd to true. If anesthesia was administered, set the value of @negationInd to false.



**Table 143: Anesthesia Administration Clinical Statement Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
substanceAdministration (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.112)					
@classCode	1..1	SHALL		<a href="#">86-19560</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM
@moodCode	1..1	SHALL		<a href="#">86-19561</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-19562</a>	
templateId	1..1	SHALL		<a href="#">86-28201</a>	
@root	1..1	SHALL		<a href="#">86-28202</a>	2.16.840.1.113883.10.20.22.4.16
templateId	1..1	SHALL		<a href="#">86-19570</a>	
@root	1..1	SHALL		<a href="#">86-19571</a>	2.16.840.1.113883.10.20.5.6.112
id	1..1	SHALL		<a href="#">86-19572</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22720</a>	NA
statusCode	1..1	SHALL		<a href="#">86-19573</a>	
@code	1..1	SHALL		<a href="#">86-19574</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL	IVL_TS	<a href="#">86-28331</a>	
low	1..1	SHALL		<a href="#">86-28332</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-28335</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA
high	1..1	SHALL		<a href="#">86-28333</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-28336</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA
consumable	1..1	SHALL		<a href="#">86-19563</a>	
manufacturedProduct	1..1	SHALL		<a href="#">86-19578</a>	
@classCode	1..1	SHALL		<a href="#">86-28349</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
templateId	1..1	SHALL		<a href="#">86-28334</a>	
@root	1..1	SHALL		<a href="#">86-28337</a>	2.16.840.1.113883.10.20.22.4.23
manufacturedMaterial	1..1	SHALL		<a href="#">86-19579</a>	
code	1..1	SHALL		<a href="#">86-19580</a>	
@code	1..1	SHALL		<a href="#">86-19581</a>	84451006
@codeSystem	1..1	SHALL		<a href="#">86-19582</a>	2.16.840.1.113883.6.96

1. Conforms to Medication Activity template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.16).
2. **SHALL** contain exactly one [1..1] **@classCode**="SBADM" Substance administration (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-19560).

3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-19561).
4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:86-19562).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28201) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.16" (CONF:86-28202).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-19570) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.112" (CONF:86-19571).
7. **SHALL** contain exactly one [1..1] **id** (CONF:86-19572).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22720).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-19573).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-19574).
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:86-28331).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:86-28332).
    - i. This low **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:86-28335).
  - b. This effectiveTime **SHALL** contain exactly one [1..1] **high** (CONF:86-28333).
    - i. This high **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:86-28336).
10. **SHALL** contain exactly one [1..1] **consumable** (CONF:86-19563).
  - a. This consumable **SHALL** contain exactly one [1..1] **manufacturedProduct** (CONF:86-19578).
    - i. This manufacturedProduct **SHALL** contain exactly one [1..1] **@classCode**="MANU" (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:86-28349).
    - ii. This manufacturedProduct **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28334) such that it
      1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.23" (CONF:86-28337).
    - iii. This manufacturedProduct **SHALL** contain exactly one [1..1] **manufacturedMaterial** (CONF:86-19579).
      1. This manufacturedMaterial **SHALL** contain exactly one [1..1] **code** (CONF:86-19580).
        - a. This code **SHALL** contain exactly one [1..1] **@code**="84451006" General Anesthesia (CONF:86-19581).
        - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CONF:86-19582).

**Figure 42: Anesthesia Administration Clinical Statement Example**

```
<substanceAdministration classCode="SBADM" moodCode="EVN"
    negationInd="false">

    <!-- C-CDA Medication Activity templateId -->
    <templateId root="2.16.840.1.113883.10.20.22.4.16" />

    <!-- HAI Anesthesia Administration Clinical Statement templateId -->
    <templateId root="2.16.840.1.113883.10.20.5.6.112" />
    <id nullFlavor="NA" />
    <statusCode code="completed" />
    <effectiveTime xsi:type="IVL_TS">
        <low nullFlavor="NA" />
        <high nullFlavor="NA" />
    </effectiveTime>
    <consumable>
        <manufacturedProduct classCode="MANU">
            <templateId root="2.16.840.1.113883.10.20.22.4.23" />
            <manufacturedMaterial>
                <code codeSystem="2.16.840.1.113883.6.96"
                    codeSystemName="SNOMED CT"
                    code="84451006"
                    displayName="General anesthesia" />
            </manufacturedMaterial>
        </manufacturedProduct>
    </consumable>
</substanceAdministration>
```

## 3.2 Antimicrobial Coated Catheter Used Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.217:2014-12-01  
(closed)]

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**Table 144: Antimicrobial Coated Catheter Used Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a CLIP Report (V2)</a> (optional)	

This clinical statement represents whether an antimicrobial coated catheter was used.

If an antimicrobial coated catheter was used, set the value of @negationInd to false. If an antimicrobial coated catheter was not used, set the value of @negationInd to true.

**Table 145: Antimicrobial Coated Catheter Used Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.217:2014-12-01)					
@classCode	1..1	SHALL		<a href="#">1129-28205</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1129-28206</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">1129-28207</a>	
templateId	1..1	SHALL		<a href="#">1129-30485</a>	
@root	1..1	SHALL		<a href="#">1129-30486</a>	2.16.840.1.113883.10.20.5.6.217
@extension	1..1	SHALL		<a href="#">1129-30487</a>	2014-12-01
code	1..1	SHALL		<a href="#">1129-28202</a>	
@code	1..1	SHALL	CS	<a href="#">1129-28210</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1129-30597</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1129-28203</a>	
@code	1..1	SHALL		<a href="#">1129-28211</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">1129-28204</a>	
@code	1..1	SHALL		<a href="#">1129-28212</a>	6140-8
@codeSystem	1..1	SHALL		<a href="#">1129-30607</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1129-28205).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1129-28206).

If an antimicrobial coated catheter was used, set the value of **@negationInd** to false. If an antimicrobial coated catheter was not used set the value of **@negationInd** to true.

3. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:1129-28207).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-30485) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.217" (CONF:1129-30486).

- b. **SHALL** contain exactly one [1..1] **@extension**="2014-12-01" (CONF:1129-30487).
- 5. **SHALL** contain exactly one [1..1] **code** (CONF:1129-28202).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:1129-28210).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1129-30597).
- 6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1129-28203).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1129-28211).
- 7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:1129-28204).
  - a. This value **SHALL** contain exactly one [1..1] **@code**="6140-8" Antimicrobial coated catheter used (CONF:1129-28212).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1129-30607).

**Figure 43: Antimicrobial Coated Catheter Used Observation Example**

```

<!-- Setting negationInd="false" indicates that an antimicrobial coated
      catheter was used -->
<observation moodCode="EVN" classCode="OBS" negationInd="false">
  <!-- Antimicrobial Coated Catheter Used Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.217"
    extension="2014-12-01"/>
  <code code="ASSERTION"
    codeSystem="2.16.840.1.113883.5.4" />
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN" code="6140-8"
    displayName="Antimicrobial coated catheter used" />
</observation>

```

### 3.3 Antimicrobial Susceptibility Final Interpretation Result

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.175 (closed)]

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**Table 146: Antimicrobial Susceptibility Final Interpretation Result Contexts**

Contained By:	Contains:
<a href="#">Antimicrobial Susceptibility Tests Organizer (V3)</a> (required)	

This clinical statement represents the final susceptibility result of a cluster of antimicrobial susceptibility tests performed on one pathogen-drug combination. Although several tests performed on one pathogen using the same antimicrobial agent may yield conflicting results, this clinical statement provides the final and definitive susceptibility testing result.

**Table 147: Antimicrobial Susceptibility Final Interpretation Result Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.175)					
@classCode	1..1	SHALL		<a href="#">86-21067</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-21068</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-28203</a>	
@root	1..1	SHALL		<a href="#">86-28204</a>	2.16.840.1.113883.10.20.22.4.2
templateId	1..1	SHALL		<a href="#">86-21071</a>	
@root	1..1	SHALL		<a href="#">86-21072</a>	2.16.840.1.113883.10.20.5.6.175
id	1..1	SHALL		<a href="#">86-21069</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-21070</a>	NA
code	1..1	SHALL		<a href="#">86-21075</a>	
@code	1..1	SHALL		<a href="#">86-28099</a>	365705006
@codeSystem	1..1	SHALL		<a href="#">86-28100</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">86-21076</a>	
@code	1..1	SHALL		<a href="#">86-21077</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">86-21078</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22630</a>	NA
value	1..1	SHALL	CD	<a href="#">86-21079</a>	urn:oid:2.16.840.1.113883.13.13 (NHSNDrugSusceptibilityFindingCode)

1. Conforms to Result Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.2).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:86-21067).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:86-21068).
4. **SHALL** contain exactly one [1..1] templateId (CONF:86-28203) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.2" (CONF:86-28204).

5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-21071) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.175" (CONF:86-21072).
6. **SHALL** contain exactly one [1..1] **id** (CONF:86-21069).
  - a. This **id** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-21070).
7. **SHALL** contain exactly one [1..1] **code** (CONF:86-21075).
  - a. This **code** **SHALL** contain exactly one [1..1] **@code**="365705006" Final Interpretation Result (CONF:86-28099).
  - b. This **code** **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28100).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-21076).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-21077).
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:86-21078).
  - a. This **effectiveTime** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22630).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", where the **code** **SHALL** be selected from ValueSet [NHSNDrugSusceptibilityFindingCode](#) urn:oid:2.16.840.1.113883.13.13 **DYNAMIC** (CONF:86-21079).

**Table 148: NHSNDrugSusceptibilityFindingCode**

Value Set: NHSNDrugSusceptibilityFindingCode urn:oid:2.16.840.1.113883.13.13 (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the drug susceptibility finding.),(Data Element Scope: A coded observation value representing the type of drug susceptibility finding.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/15/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.13/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.13/expansion</a>			
Code	Code System	Code System OID	Print Name
I	ObservationInterpretation	urn:oid:2.16.840.1.113883.5.83	Intermediate
NS	ObservationInterpretation	urn:oid:2.16.840.1.113883.5.83	Non-susceptible
R	ObservationInterpretation	urn:oid:2.16.840.1.113883.5.83	Resistant
S	ObservationInterpretation	urn:oid:2.16.840.1.113883.5.83	Susceptible
SDD	ObservationInterpretation	urn:oid:2.16.840.1.113883.5.83	Susceptible-dose dependent

**Figure 44: Antimicrobial Susceptibility Final Interpretation Result Example**

```
<!-- This observation specifies the Final Interpretation Result -->
<observation classCode="OBS" moodCode="EVN">
  <!-- Antimicrobial Susceptibility Final Interpretation Result -->
  <templateId root="2.16.840.1.113883.10.20.5.6.175" />
  <!-- Consolidated CDA Result Observation template -->
  <templateId root="2.16.840.1.113883.10.20.22.4.2" />
  <id nullFlavor="NA" />
  <code code="365705006"
        displayName="Final Interpretation Result"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED CT" />
  <statusCode code="completed" />
  <effectiveTime nullFlavor="NA" />
  <value xsi:type="CD" codeSystem="2.16.840.1.113883.5.83"
        codeSystemName="HL7 Observation Interpretation"
        code="R"
        displayName="Resistant" />
</observation>
```

### 3.4 Antimicrobial Susceptibility Isolate Participant (V2)

[participant: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.202:2020-04-01  
(closed)]

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**Table 149: Antimicrobial Susceptibility Isolate Participant (V2) Contexts**

Contained By:	Contains:
<a href="#">Isolate Susceptibility Tests Organizer (V5)</a> (required)	

This template identifies an isolate for the purpose of antimicrobial susceptibility testing.



**Table 150: Antimicrobial Susceptibility Isolate Participant (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
participant (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.202:2020-04-01)					
@typeCode	1..1	SHALL		<a href="#">4459-27150</a>	SBJ
templateId	1..1	SHALL		<a href="#">4459-27137</a>	
@root	1..1	SHALL		<a href="#">4459-27138</a>	2.16.840.1.113883.10.20.5.6.202
@extension	1..1	SHALL		<a href="#">4459-30799</a>	2020-04-01
participantRole	1..1	SHALL		<a href="#">4459-27151</a>	
@classCode	1..1	SHALL		<a href="#">4459-27152</a>	ISLT
id	1..*	SHALL		<a href="#">4459-27153</a>	
playingEntity	1..1	SHALL		<a href="#">4459-27154</a>	
code	1..1	SHALL		<a href="#">4459-27155</a>	urn:oid:2.16.840.1.113762.1.4.1190.6 (NHSNPathogenCodeARO)

1. **SHALL** contain exactly one [1..1] **@typeCode**="SBJ" (CONF:4459-27150).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4459-27137) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.202" (CONF:4459-27138).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2020-04-01" (CONF:4459-30799).
3. **SHALL** contain exactly one [1..1] **participantRole** (CONF:4459-27151).
  - a. This participantRole **SHALL** contain exactly one [1..1] **@classCode**="ISLT" (CONF:4459-27152).

This is the unique isolate identifier

- b. This participantRole **SHALL** contain at least one [1..\*] **id** (CONF:4459-27153).
- c. This participantRole **SHALL** contain exactly one [1..1] **playingEntity** (CONF:4459-27154).
  - i. This playingEntity **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNPathogenCodeARO](#) urn:oid:2.16.840.1.113762.1.4.1190.6 **DYNAMIC** (CONF:4459-27155).

**Table 151: NHSNPathogenCodeARO**

Value Set: NHSNPathogenCodeARO urn:oid:2.16.840.1.113762.1.4.1190.6 (Clinical Focus: NHSN Surveillance - Antibiotic Resistance Option),(Data Element Scope: Pathogens eligible for NHSN ARO reporting),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 1/11/2024 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1190.6/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1190.6/expansion</a>			
Code	Code System	Code System OID	Print Name
10262005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Enterococcus malodoratus (organism)
103429008	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Enterohemorrhagic Escherichia coli, serotype O157:H7 (organism)
103436009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Enterococcus pseudoavium (organism)
103437000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Enterococcus raffinosus (organism)
103438005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Enterococcus saccharolyticus (organism)
112283007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Escherichia coli (organism)
113376007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Acinetobacter calcoaceticus-Acinetobacter baumannii complex (organism)
113381003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Acinetobacter radioresistens (organism)
113697002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Stenotrophomonas maltophilia (organism)
113722005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Enterococcus cecorum (organism)
...			

**Figure 45: Antimicrobial Susceptibility Isolate Participant (V2) Example**

```
<participant typeCode="SBJ">
  <!-- [HAI R3N1] Antimicrobial Susceptibility Isolate Participant (V2) template -->
  <templateId root="2.16.840.1.113883.10.20.5.6.202" extension="2020-04-01" />
  <participantRole classCode="ISLT">
    <!-- Isolate identifier - unique for each isolate in that year -->
    <id root="8d7ebcf7-528e-48e8-9e04-350b11b591d1" extension="125698523"/>
    <playingEntity>
      <code code="3092008"
        displayName="Staphylococcus aureus"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED CT"/>
    </playingEntity>
  </participantRole>
</participant>
```

### 3.5 Antimicrobial Susceptibility Result Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.186:2016-08-01 (closed)]

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**Table 152: Antimicrobial Susceptibility Result Observation (V3) Contexts**

Contained By:	Contains:
<a href="#">Antimicrobial Susceptibility Result Organizer (V3)</a> (required)	

This clinical statement represents the result of one discrete susceptibility test. The type of test is recorded in the code element. The test method is recorded in the methodCode. The susceptibility result of that test is recorded in the interpretationCode element. The numeric result of that test is recorded in the value element as an inequality. The numeric component is recorded in the value/.../@value attribute. The unit of measure is recorded in the value/.../@unit attribute. The inequality is recorded in the value/low and value/high and value/center elements. For example:

Greater than 0.5 mg/ul

Greater than or equal to 0.9 mg/ul

Less than 0.7 mg/ul

Less than or equal to 0.4 mg/ul

Exactly equal to 0.2 mg/ul

**Table 153: Antimicrobial Susceptibility Result Observation (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.186:2016-08-01)					
@classCode	1..1	SHALL		<a href="#">3247-22632</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">3247-22633</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">3247-22699</a>	
templateId	1..1	SHALL		<a href="#">3247-30551</a>	
@root	1..1	SHALL		<a href="#">3247-30552</a>	2.16.840.1.113883.10.20.22.4.2
templateId	1..1	SHALL		<a href="#">3247-22634</a>	
@root	1..1	SHALL		<a href="#">3247-22635</a>	2.16.840.1.113883.10.20.5.6.186
@extension	1..1	SHALL		<a href="#">3247-30553</a>	2016-08-01
id	1..1	SHALL		<a href="#">3247-22636</a>	
@nullFlavor	1..1	SHALL		<a href="#">3247-22637</a>	NA
code	1..1	SHALL		<a href="#">3247-22638</a>	urn:oid:2.16.840.1.113883.13.15 (NHSNDrugSusceptibilityTests Code)
statusCode	1..1	SHALL		<a href="#">3247-22639</a>	
@code	1..1	SHALL		<a href="#">3247-22640</a>	completed
effectiveTime	1..1	SHALL		<a href="#">3247-22641</a>	
@nullFlavor	1..1	SHALL		<a href="#">3247-22642</a>	NA
value	1..1	SHALL	IVL_PQ	<a href="#">3247-22643</a>	
low	0..1	MAY		<a href="#">3247-22644</a>	
@value	0..1	MAY		<a href="#">3247-23095</a>	
@unit	0..1	MAY		<a href="#">3247-23096</a>	
@inclusive	0..1	MAY	BL	<a href="#">3247-22645</a>	
high	0..1	MAY		<a href="#">3247-</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
				<a href="#">22646</a>	
@value	0..1	MAY		<a href="#">3247-23097</a>	
@unit	0..1	MAY		<a href="#">3247-23098</a>	
@inclusive	0..1	MAY		<a href="#">3247-22647</a>	
center	0..1	MAY		<a href="#">3247-22648</a>	
@value	0..1	MAY		<a href="#">3247-23099</a>	
@unit	0..1	MAY		<a href="#">3247-23100</a>	
@nullFlavor	0..1	MAY		<a href="#">3247-23366</a>	
interpretationCode	1..1	SHALL		<a href="#">3247-23101</a>	urn:oid:2.16.840.1.113883.13.13 (NHSNDrugSusceptibilityFindingCode)
methodCode	1..1	SHALL		<a href="#">3247-30599</a>	
@code	1..1	SHALL		<a href="#">3247-30602</a>	urn:oid:2.16.840.1.113883.10.20.5.9.4 (NHSNDrugSusceptibilityTestMethod)
@codeSystem	1..1	SHALL		<a href="#">3247-30603</a>	

1. Conforms to Result Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.2).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3247-22632).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3247-22633).
4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:3247-22699).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:3247-30551) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.2" (CONF:3247-30552).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:3247-22634) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.186" (CONF:3247-22635).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2016-08-01" (CONF:3247-30553).
7. **SHALL** contain exactly one [1..1] **id** (CONF:3247-22636).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:3247-22637).

8. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [NHSNDrugSusceptibilityTestsCode](#) urn:oid:2.16.840.1.113883.13.15 **DYNAMIC** (CONF:3247-22638).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3247-22639).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="completed" (CONF:3247-22640).
10. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:3247-22641).
  - a. This **effectiveTime** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:3247-22642).
11. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="IVL\_PQ" (CONF:3247-22643).
  - a. This **value** **MAY** contain zero or one [0..1] **low** (CONF:3247-22644).
    - i. The **low**, if present, **MAY** contain zero or one [0..1] **@value** (CONF:3247-23095).
    - ii. The **low**, if present, **MAY** contain zero or one [0..1] **@unit** (CONF:3247-23096).
    - iii. The **low**, if present, **MAY** contain zero or one [0..1] **@inclusive** (CONF:3247-22645).
  - b. This **value** **MAY** contain zero or one [0..1] **high** (CONF:3247-22646).
    - i. The **high**, if present, **MAY** contain zero or one [0..1] **@value** (CONF:3247-23097).
    - ii. The **high**, if present, **MAY** contain zero or one [0..1] **@unit** (CONF:3247-23098).
    - iii. The **high**, if present, **MAY** contain zero or one [0..1] **@inclusive** (CONF:3247-22647).
  - c. This **value** **MAY** contain zero or one [0..1] **center** (CONF:3247-22648).
    - i. The **center**, if present, **MAY** contain zero or one [0..1] **@value** (CONF:3247-23099).
    - ii. The **center**, if present, **MAY** contain zero or one [0..1] **@unit** (CONF:3247-23100).
  - d. This **value** **MAY** contain zero or one [0..1] **@nullFlavor** (CONF:3247-23366).
12. **SHALL** contain exactly one [1..1] **interpretationCode**, which **SHOULD** be selected from ValueSet [NHSNDrugSusceptibilityFindingCode](#) urn:oid:2.16.840.1.113883.13.13 **DYNAMIC** (CONF:3247-23101).
13. **SHALL** contain exactly one [1..1] **methodCode** (CONF:3247-30599).
  - a. This **methodCode** **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [NHSNDrugSusceptibilityTestMethod](#) urn:oid:2.16.840.1.113883.10.20.5.9.4 **DYNAMIC** (CONF:3247-30602).
  - b. This **methodCode** **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:3247-30603).

**Table 154: NHSNDrugSusceptibilityTestsCode**

Value Set: NHSNDrugSusceptibilityTestsCode urn:oid:2.16.840.1.113883.13.15 (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the drug susceptibility test.),(Data Element Scope: Code identifying the type of drug susceptibility observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.15/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.15/expansion</a>			
Code	Code System	Code System OID	Print Name
18855-7	LOINC	urn:oid:2.16.840.1.113883.6.1	5-Fluorocytosine [Susceptibility]
18860-7	LOINC	urn:oid:2.16.840.1.113883.6.1	Amikacin [Susceptibility]
18861-5	LOINC	urn:oid:2.16.840.1.113883.6.1	Amoxicillin [Susceptibility]
18862-3	LOINC	urn:oid:2.16.840.1.113883.6.1	Amoxicillin+Clavulanate [Susceptibility]
18864-9	LOINC	urn:oid:2.16.840.1.113883.6.1	Ampicillin [Susceptibility]
18865-6	LOINC	urn:oid:2.16.840.1.113883.6.1	Ampicillin+Sulbactam [Susceptibility]
18866-4	LOINC	urn:oid:2.16.840.1.113883.6.1	Azithromycin [Susceptibility]
18868-0	LOINC	urn:oid:2.16.840.1.113883.6.1	Aztreonam [Susceptibility]
18878-9	LOINC	urn:oid:2.16.840.1.113883.6.1	ceFAZolin [Susceptibility]
18879-7	LOINC	urn:oid:2.16.840.1.113883.6.1	Cefepime [Susceptibility]
...			

**Table 155: NHSNDrugSusceptibilityTestMethod**

Value Set: NHSNDrugSusceptibilityTestMethod urn:oid:2.16.840.1.113883.10.20.5.9.4 (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the drug susceptibility test method.),(Data Element Scope: Code identifying the type of drug susceptibility observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.4/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.4/expansion</a>			
Code	Code System	Code System OID	Print Name
49589-5	LOINC	urn:oid:2.16.840.1.113883.6.1	Bacterial susceptibility panel by Gradient strip
50545-3	LOINC	urn:oid:2.16.840.1.113883.6.1	Bacterial susceptibility panel by Minimum inhibitory concentration (MIC)
50546-1	LOINC	urn:oid:2.16.840.1.113883.6.1	Bacterial susceptibility panel by Disk diffusion (KB)

**Figure 46: Antimicrobial Susceptibility Result Observation (V3)**

<pre> &lt;observation classCode="OBS" moodCode="EVN" negationInd="false"&gt;   &lt;!-- [C-CDA R1.1] Result Observation --&gt;   &lt;templateId root="2.16.840.1.113883.10.20.22.4.2" /&gt;    &lt;!-- [HAI R3D1.1] Antimicrobial Susceptibility Result Observation (V3) --&gt;   &lt;templateId root="2.16.840.1.113883.10.20.5.6.186" extension="2016-08-01" /&gt;    &lt;id nullFlavor="NA" /&gt;   &lt;code code="18907-6"     displayName="Clarithro Susc Islt"     codeSystemName="LOINC"     codeSystem="2.16.840.1.113883.6.1" /&gt;   &lt;statusCode code="completed" /&gt;   &lt;effectiveTime nullFlavor="NA" /&gt;   &lt;value xsi:type="IVL_PQ"&gt;     &lt;low value="5.0" unit="ug/ml" /&gt;   &lt;/value&gt;   &lt;interpretationCode codeSystem="2.16.840.1.113883.5.83"     codeSystemName="HL7 Observation Interpretation"     code="R"     displayName="Resistant" /&gt;   &lt;methodCode codeSystem="2.16.840.1.113883.6.1"     codeSystemName="LOINC"     code="49589-5"     displayName="Bacterial susceptibility panel by Gradient strip (E-test)" /&gt; &lt;/observation&gt; </pre>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



**Figure 47: Antimicrobial Susceptibility Result Observation (V3) - Not Done**

```
<observation classCode="OBS" moodCode="EVN" negationInd="true">
  <!-- [C-CDA R1.1] Result Observation -->
  <templateId root="2.16.840.1.113883.10.20.22.4.2" />

  <!-- [HAI R3D1.1] Antimicrobial Susceptibility Result Observation (V3) -->
  <templateId root="2.16.840.1.113883.10.20.5.6.186" extension="2016-08-01" />

  <id nullFlavor="NA" />
  <code code="18907-6"
    displayName="Clarithro Susc Islt"
    codeSystemName="LOINC"
    codeSystem="2.16.840.1.113883.6.1" />
  <statusCode code="completed" />
  <effectiveTime nullFlavor="NA" />
  <value xsi:type="IVL_PQ" nullFlavor="NA" />
  <interpretationCode nullFlavor="NA" />
  <methodCode codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    code="50546-1"
    displayName="Bacterial susceptibility panel by Disk diffusion (KB)" />
</observation>
```

### 3.6 Antimicrobial Susceptibility Result Organizer (V3)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.200:2016-08-01  
(closed)]

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**Table 156: Antimicrobial Susceptibility Result Organizer (V3) Contexts**

Contained By:	Contains:
<a href="#">Antimicrobial Susceptibility Tests Organizer (V3)</a> (required)	<a href="#">Antimicrobial Susceptibility Result Observation (V3)</a> (required)

This organizer groups a battery of antimicrobial susceptibility tests. Each drug tested must have an observation for each method in the value set NHSNDrugSusceptibilityTestMethod.

**Table 157: Antimicrobial Susceptibility Result Organizer (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.200:2016-08-01)					
@classCode	1..1	SHALL		<a href="#">3247-27103</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = BATTERY
@moodCode	1..1	SHALL		<a href="#">3247-27104</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">3247-30554</a>	
@root	1..1	SHALL		<a href="#">3247-28208</a>	2.16.840.1.113883.10.20.22.4.1
templateId	1..1	SHALL		<a href="#">3247-27105</a>	
@root	1..1	SHALL		<a href="#">3247-27106</a>	2.16.840.1.113883.10.20.5.6.200
@extension	1..1	SHALL		<a href="#">3247-30555</a>	2016-08-01
id	1..1	SHALL		<a href="#">3247-27107</a>	
@nullFlavor	1..1	SHALL		<a href="#">3247-30591</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA
code	1..1	SHALL		<a href="#">3247-27108</a>	
@code	1..1	SHALL		<a href="#">3247-28101</a>	18725-2
@codeSystem	1..1	SHALL		<a href="#">3247-28102</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">3247-27109</a>	
@code	1..1	SHALL		<a href="#">3247-27110</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
component	1..*	SHALL		<a href="#">3247-27111</a>	
observation	1..1	SHALL		<a href="#">3247-27112</a>	<a href="#">Antimicrobial Susceptibility Result Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.186:2016-08-01)</a>

1. Conforms to Result Organizer template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.1).
2. **SHALL** contain exactly one [1..1] **@classCode**="BATTERY" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3247-27103).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3247-27104).

4. **SHALL** contain exactly one [1..1] **templateId** (CONF:3247-30554) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.1" (CONF:3247-28208).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:3247-27105) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.200" (CONF:3247-27106).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2016-08-01" (CONF:3247-30555).
6. **SHALL** contain exactly one [1..1] **id** (CONF:3247-27107).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:3247-30591).
7. **SHALL** contain exactly one [1..1] **code** (CONF:3247-27108).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="18725-2" Microbiology Studies (CONF:3247-28101).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3247-28102).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3247-27109).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3247-27110).

Each drug tested must have an observation for each method in the value set NHSNDrugSusceptibilityTestMethod.

9. **SHALL** contain at least one [1..\*] **component** (CONF:3247-27111).
  - a. Such components **SHALL** contain exactly one [1..1] [Antimicrobial Susceptibility Result Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.186:2016-08-01) (CONF:3247-27112).

**Figure 48: Antimicrobial Susceptibility Result Organizer (V3) Example**

```
<organizer classCode="BATTERY" moodCode="EVN">
  <!-- [C-CDA R1.1] Result Organizer -->
  <templateId root="2.16.840.1.113883.10.20.22.4.1" />

  <!-- [HAI R3D1.1] Antimicrobial Susceptibility Result Organizer (V3) -->
  <templateId root="2.16.840.1.113883.10.20.5.6.200" extension="2016-08-01" />
  <id nullFlavor="NA" />
  <code code="18725-2"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="Microbiology Studies" />
  <statusCode code="completed" />
  <component>
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- [C-CDA R1.1] Result Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.2" />

      <!-- [HAI R3D1.1] Antimicrobial Susceptibility Result Observation (V3) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.186" extension="2016-08-01" />
      ...
    </observation>
  </component>

  <!-- This observation specifies the susceptibility test was not done. (NegationInd =
true) -->
  <component>
    <observation classCode="OBS" moodCode="EVN" negationInd="true">
      <!-- [C-CDA R1.1] Result Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.2" />

      <!-- [HAI R3D1.1] Antimicrobial Susceptibility Result Observation (V3) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.186" extension="2016-08-01" />
      ...
    </observation>
  </component>
  ...
</organizer>
```

3.7 Antimicrobial Susceptibility Tests Organizer (V3)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.177:2016-08-01 (closed)]

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Table 158: Antimicrobial Susceptibility Tests Organizer (V3) Contexts

Contained By:	Contains:
<a href="#">Isolate Susceptibility Tests Organizer (V5)</a> (required)	<a href="#">Antimicrobial Susceptibility Final Interpretation Result</a> (required) <a href="#">Antimicrobial Susceptibility Result Organizer (V3)</a> (required)

This organizer identifies a set of antimicrobial susceptibility tests performed on a pathogen along with the final antimicrobial susceptibility result generated by those tests with regard to that pathogen-agent combination.

**Table 159: Antimicrobial Susceptibility Tests Organizer (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.177:2016-08-01)					
@classCode	1..1	SHALL		<a href="#">3247-21091</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">3247-21092</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">3247-30498</a>	
@root	1..1	SHALL		<a href="#">3247-30499</a>	2.16.840.1.113883.10.20.22.4.1
templateId	1..1	SHALL		<a href="#">3247-21093</a>	
@root	1..1	SHALL		<a href="#">3247-21094</a>	2.16.840.1.113883.10.20.5.6.177
@extension	1..1	SHALL		<a href="#">3247-30500</a>	2016-08-01
id	1..*	SHALL		<a href="#">3247-21097</a>	
@nullFlavor	1..1	SHALL		<a href="#">3247-22723</a>	NA
code	1..1	SHALL		<a href="#">3247-21098</a>	
@code	1..1	SHALL		<a href="#">3247-21099</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 18725-2
statusCode	1..1	SHALL		<a href="#">3247-21100</a>	
@code	1..1	SHALL		<a href="#">3247-21101</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
component	1..1	SHALL		<a href="#">3247-21104</a>	
organizer	1..1	SHALL		<a href="#">3247-27178</a>	<a href="#">Antimicrobial Susceptibility Result Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.200:2016-08-01)</a>
component	1..1	SHALL		<a href="#">3247-21106</a>	
observation	1..1	SHALL		<a href="#">3247-22712</a>	<a href="#">Antimicrobial Susceptibility Final Interpretation Result (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.175)</a>

1. Conforms to Result Organizer template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.1).

2. **SHALL** contain exactly one [1..1] **@classCode**="CLUSTER" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3247-21091).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3247-21092).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:3247-30498) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.1" (CONF:3247-30499).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:3247-21093) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.177" (CONF:3247-21094).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2016-08-01" (CONF:3247-30500).
6. **SHALL** contain at least one [1..\*] **id** (CONF:3247-21097).
  - a. Such ids **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:3247-22723).
7. **SHALL** contain exactly one [1..1] **code** (CONF:3247-21098).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="18725-2" Microbiology studies (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3247-21099).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3247-21100).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3247-21101).
9. **SHALL** contain exactly one [1..1] **component** (CONF:3247-21104) such that it
  - a. **SHALL** contain exactly one [1..1] [Antimicrobial Susceptibility Result Organizer \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.200:2016-08-01) (CONF:3247-27178).
10. **SHALL** contain exactly one [1..1] **component** (CONF:3247-21106) such that it
  - a. **SHALL** contain exactly one [1..1] [Antimicrobial Susceptibility Final Interpretation Result](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.175) (CONF:3247-22712).

**Figure 49: Antimicrobial Susceptibility Tests Organizer (V3) Example**

```
<organizer classCode="CLUSTER" moodCode="EVN">

  <!-- [C-CDA R1.1] Result Organizer -->
  <templateId root="2.16.840.1.113883.10.20.22.4.1" />

  <!-- [HAI R3D1.1] Antimicrobial Susceptibility Tests Organizer (V3) -->
  <templateId root="2.16.840.1.113883.10.20.5.6.177" extension="2016-08-01" />
  <id nullFlavor="NA" />
  <code code="18725-2"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="Microbiology Studies" />
  <statusCode code="completed" />
  <component>
    <organizer classCode="BATTERY" moodCode="EVN">
      <!-- [C-CDA R1.1] Result Organizer -->
      <templateId root="2.16.840.1.113883.10.20.22.4.1" />

      <!-- [HAI R3D1.1] Antimicrobial Susceptibility Result Organizer (V3) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.200" extension="2016-08-01" />
      ...
    </organizer>
  </component>
</component>

  <!-- This observation specifies the Final Interpretation result. -->
  <observation classCode="OBS" moodCode="EVN">
    <!-- [HAI R1] Antimicrobial Susceptibility Final Interpretation Result -->
    <templateId root="2.16.840.1.113883.10.20.5.6.175" />

    <!-- [C-CDA R1.1] Result Observation -->
    <templateId root="2.16.840.1.113883.10.20.22.4.2" />
    ...
  </observation>
</component>
</organizer>
```

### 3.8 APRV or Related at Time of VAE Observation

[observation: identifier urn:h17ii:2.16.840.1.113883.10.20.5.6.248:2017-04-01 (closed)]

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Release 3, STU 2 - US Realm

**Table 160: APRV or Related at Time of VAE Observation Contexts**

Contained By:	Contains:
<a href="#">Risk Factors Section in a VAE Report</a> (optional)	



This clinical statement represents whether or not the patient was on Airway Pressure Release Ventilation (APRV) or a related mode of mechanical ventilation at the time of the Ventilator-Associated Event (VAE).

If the patient was on APRV or related at the time of the VAE, set the value of @negationInd to false. If the patient was not on APRV or related at the time of the VAE, set the value of @negationInd to true.

**Table 161: APRV or Related at Time of VAE Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.248:2017-04-01)					
@classCode	1..1	SHALL		<a href="#">3311-28405</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">3311-28406</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">3311-28407</a>	
templateId	1..1	SHALL		<a href="#">3311-28399</a>	
@root	1..1	SHALL		<a href="#">3311-28408</a>	2.16.840.1.113883.10.20.5.6.248
@extension	1..1	SHALL		<a href="#">3311-28409</a>	2017-04-01
code	1..1	SHALL		<a href="#">3311-28396</a>	
@code	1..1	SHALL	CS	<a href="#">3311-28400</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">3311-28401</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">3311-28397</a>	
@code	1..1	SHALL		<a href="#">3311-28402</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">3311-28398</a>	
@code	1..1	SHALL		<a href="#">3311-28403</a>	2342-6
@codeSystem	1..1	SHALL		<a href="#">3311-28404</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3311-28405).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3311-28406).

If the patient was on APRV or related at the time of the VAE, set the value of `@negationInd` to false. If the patient was not on APRV or related at the time of the VAE, set the value of `@negationInd` to true.

3. **SHALL** contain exactly one [1..1] `@negationInd` (CONF:3311-28407).
4. **SHALL** contain exactly one [1..1] `templateId` (CONF:3311-28399) such that it
  - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.5.6.248"` (CONF:3311-28408).
  - b. **SHALL** contain exactly one [1..1] `@extension="2017-04-01"` (CONF:3311-28409).
5. **SHALL** contain exactly one [1..1] `code` (CONF:3311-28396).
  - a. This code **SHALL** contain exactly one [1..1] `@code="ASSERTION"` Assertion (CONF:3311-28400).
  - b. This code **SHALL** contain exactly one [1..1] `@codeSystem="2.16.840.1.113883.5.4"` (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3311-28401).
6. **SHALL** contain exactly one [1..1] `statusCode` (CONF:3311-28397).
  - a. This statusCode **SHALL** contain exactly one [1..1] `@code="completed"` Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:3311-28402).
7. **SHALL** contain exactly one [1..1] `value` with `@xsi:type="CD"` (CONF:3311-28398).
  - a. This value **SHALL** contain exactly one [1..1] `@code="2342-6"` Patient on Airway Pressure Release Ventilation (APRV) or a related mode of mechanical ventilation at the time of VAE (CONF:3311-28403).
  - b. This value **SHALL** contain exactly one [1..1] `@codeSystem="2.16.840.1.113883.6.277"` (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3311-28404).

**Figure 50: APRV or Related at Time of VAE**

```
<!-- Setting negationInd="false" indicates that the Patient on Airway Pressure
      Release Ventilation (APRV) or a related mode of mechanical ventilation
      at the time of VAE -->
<observation moodCode="EVN" classCode="OBS" negationInd="false">
  <!-- [HAI R3D2] APRV or Related at Time of VAE Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.248" extension="2017-04-01" />
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
  <statusCode code="completed" />
  <value xsi:type="CD" code="2342-6"
    displayName="Patient on Airway Pressure Release Ventilation (APRV)
      or a related mode of mechanical ventilation at the time of VAE"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN" />
</observation>
```

### 3.9 ARO Staph Aureus Specific Tests Organizer (DEPRECATED)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.190:2024-05-01 (closed)]

Deprecated as part of NHSN Healthcare Associated Infection Reports Release 4, STU 3 - US Realm

**Table 162: ARO Staph Aureus Specific Tests Organizer (DEPRECATED) Contexts**

Contained By:	Contains:
<a href="#">Isolate Susceptibility Tests Organizer (V5)</a> (optional)	<a href="#">ARO Staph Aureus Specific Tests Result Observation (DEPRECATED)</a> (required)

This organizer represents the set of specific tests conducted on an isolate of Staphylococcus aureus when performing antimicrobial susceptibility testing.

**This template has been deprecated and may be deleted (retired) in a future release of this implementation guide. Use of this template is not recommended.**

**This template has been deprecated (rather than retired) to allow time for implementers to bring applications into compliance with the new standard.**

*Reason for Deprecation:* A new template has been created [Gene and Protein Presence Tests Organizer](#) and should be used instead of this template.

**Table 163: ARO Staph Aureus Specific Tests Organizer (DEPRECATED) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.190:2024-05-01)					
@classCode	1..1	SHALL		<a href="#">5554-22700</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">5554-22701</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">5554-28209</a>	
@root	1..1	SHALL		<a href="#">5554-28210</a>	2.16.840.1.113883.10.20.22.4.1
templateId	1..1	SHALL		<a href="#">5554-22702</a>	
@root	1..1	SHALL		<a href="#">5554-22703</a>	2.16.840.1.113883.10.20.5.6.190
@extension	1..1	SHALL		<a href="#">5554-31115</a>	2024-05-01
id	1..1	SHALL		<a href="#">5554-22704</a>	
@nullFlavor	1..1	SHALL		<a href="#">5554-23365</a>	NA
code	1..1	SHALL		<a href="#">5554-22705</a>	
@code	1..1	SHALL		<a href="#">5554-22706</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 18725-2
statusCode	1..1	SHALL		<a href="#">5554-22707</a>	
@code	1..1	SHALL		<a href="#">5554-22708</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
component	1..*	SHALL		<a href="#">5554-22709</a>	
observation	1..1	SHALL		<a href="#">5554-22710</a>	<a href="#">ARO Staph Aureus Specific Tests Result Observation (DEPRECATED) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.189:2024-05-01)</a>

1. Conforms to Result Organizer template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.1).
2. **SHALL** contain exactly one [1..1] **@classCode**="CLUSTER" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:5554-22700).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:5554-22701).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:5554-28209) such that it

- a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.22.4.1"` (CONF:5554-28210).
5. **SHALL** contain exactly one [1..1] `templateId` (CONF:5554-22702) such that it
  - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.5.6.190"` (CONF:5554-22703).
  - b. **SHALL** contain exactly one [1..1] `@extension="2024-05-01"` (CONF:5554-31115).
6. **SHALL** contain exactly one [1..1] `id` (CONF:5554-22704).
  - a. This `id` **SHALL** contain exactly one [1..1] `@nullFlavor="NA"` (CONF:5554-23365).
7. **SHALL** contain exactly one [1..1] `code` (CONF:5554-22705).
  - a. This `code` **SHALL** contain exactly one [1..1] `@code="18725-2"` Microbiology studies (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:5554-22706).
8. **SHALL** contain exactly one [1..1] `statusCode` (CONF:5554-22707).
  - a. This `statusCode` **SHALL** contain exactly one [1..1] `@code="completed"` Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:5554-22708).
9. **SHALL** contain at least one [1..\*] `component` (CONF:5554-22709) such that it
  - a. **SHALL** contain exactly one [1..1] [ARO Staph Aureus Specific Tests Result Observation \(DEPRECATED\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.189:2024-05-01) (CONF:5554-22710).

### 3.10 ARO Staph Aureus Specific Tests Result Observation (DEPRECATED)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.189:2024-05-01 (closed)]

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**Table 164: ARO Staph Aureus Specific Tests Result Observation (DEPRECATED) Contexts**

Contained By:	Contains:
<a href="#">ARO Staph Aureus Specific Tests Organizer (DEPRECATED)</a> (required)	

This clinical statement represents the results of a Staphylococcus aureus-specific test when performing antimicrobial susceptibility testing. The type of test is recorded in the code element; the results of the test are recorded in the value element.

**This template has been deprecated and may be deleted (retired) in a future release of this implementation guide. Use of this template is not recommended.**

**This template has been deprecated (rather than retired) to allow time for implementers to bring applications into compliance with the new standard.**

**Reason for Deprecation:** A new template has been created [Gene and Protein Presence Tests Observation](#) and should be used instead of this template.

**Table 165: ARO Staph Aureus Specific Tests Result Observation (DEPRECATED) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.189:2024-05-01)					
@classCode	1..1	SHALL		<a href="#">5554-22687</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">5554-22688</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">5554-28211</a>	
@root	1..1	SHALL		<a href="#">5554-28212</a>	2.16.840.1.113883.10.20.22.4.2
templateId	1..1	SHALL		<a href="#">5554-22689</a>	
@root	1..1	SHALL		<a href="#">5554-22690</a>	2.16.840.1.113883.10.20.5.6.189
@extension	1..1	SHALL		<a href="#">5554-31116</a>	2024-05-01
id	1..1	SHALL		<a href="#">5554-22691</a>	
@nullFlavor	1..1	SHALL		<a href="#">5554-22692</a>	NA
code	1..1	SHALL		<a href="#">5554-22693</a>	urn:oid:2.16.840.1.114222.4.11.7160 (NHSNStaphAureusSpecificTest)
statusCode	1..1	SHALL		<a href="#">5554-22694</a>	
@code	1..1	SHALL		<a href="#">5554-22695</a>	completed
effectiveTime	1..1	SHALL		<a href="#">5554-22696</a>	
@nullFlavor	1..1	SHALL		<a href="#">5554-22697</a>	NA
value	1..1	SHALL	CD	<a href="#">5554-22698</a>	urn:oid:2.16.840.1.114222.4.11.6074 (NHSNStaphAureusTestResults)

1. Conforms to Result Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.2).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:5554-22687).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:5554-22688).

4. **SHALL** contain exactly one [1..1] **templateId** (CONF:5554-28211) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.2" (CONF:5554-28212).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:5554-22689) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.189" (CONF:5554-22690).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2024-05-01" (CONF:5554-31116).
6. **SHALL** contain exactly one [1..1] **id** (CONF:5554-22691).
  - a. This **id** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:5554-22692).
7. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNStaphAureusSpecificTest](#) urn:oid:2.16.840.1.114222.4.11.7160 **DYNAMIC** (CONF:5554-22693).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:5554-22694).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="completed" (CONF:5554-22695).
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5554-22696).
  - a. This **effectiveTime** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:5554-22697).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", where the code **SHALL** be selected from ValueSet [NHSNStaphAureusTestResults](#) urn:oid:2.16.840.1.114222.4.11.6074 **DYNAMIC** (CONF:5554-22698).

**Table 166: NHSNStaphAureusSpecificTest**

Value Set: NHSNStaphAureusSpecificTest urn:oid:2.16.840.1.114222.4.11.7160 (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the type of Staphylococcus aureus-specific test used to perform antimicrobial susceptibility testing.),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7160/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7160/expansion</a>			
Code	Code System	Code System OID	Print Name
42721-1	LOINC	urn:oid:2.16.840.1.113883.6.1	Oxacillin Resistant Staphylococcus sp isolate [Presence] in Isolate by Latex agglutination
48813-0	LOINC	urn:oid:2.16.840.1.113883.6.1	Methicillin resistance mecA gene [Presence] by Molecular method

**Table 167: NHSNStaphAureusTestResults**

Value Set: NHSNStaphAureusTestResults urn:oid:2.16.840.1.114222.4.11.6074 (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the results of a Staphylococcus aureus-specific test when performing antimicrobial susceptibility testing.),(Data Element Scope: A coded observation value describing the result of a Staphylococcus aureus-specific test when performing antimicrobial susceptibility testing),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6074/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6074/expansion</a>			
Code	Code System	Code System OID	Print Name
10828004	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Positive (qualifier value)
260385009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Negative (qualifier value)
261665006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Unknown (qualifier value)

### 3.11 ASA Class Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.113 (closed)]

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**Table 168: ASA Class Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a Procedure Report</a> (optional) <a href="#">Infection Risk Factors Section in an OPC Denominator for Procedure</a> (optional)	

This observation records the patient's physical status using the American Society of Anesthesiologists (ASA) Class Codes. The SNOMED CT representation of ASA Class Codes includes a sixth value (413500003 ASA physical status class 6 for brain-dead patients taken to the operating room to remove organs for transplant). This sixth value is not part of the value set allowed in a CDA document submitted to NHSN.



**Table 169: ASA Class Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.113)					
@classCode	1..1	SHALL		<a href="#">86-19583</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-19584</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-19585</a>	false
templateId	1..1	SHALL		<a href="#">86-28213</a>	
@root	1..1	SHALL		<a href="#">86-28214</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-19594</a>	
@root	1..1	SHALL		<a href="#">86-19595</a>	2.16.840.1.113883.10.20.5.6.113
id	1..1	SHALL		<a href="#">86-19596</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22724</a>	NA
code	1..1	SHALL		<a href="#">86-19586</a>	
@code	1..1	SHALL		<a href="#">86-19587</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28370</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-19588</a>	
@code	1..1	SHALL		<a href="#">86-19589</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-19590</a>	urn:oid:2.16.840.1.113883.13.10 (NHSNASAClassCode)

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-19583).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-19584).
4. **SHALL** contain exactly one [1..1] **@negationInd**="false" (CONF:86-19585).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28213) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28214).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-19594) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.113" (CONF:86-19595).
7. **SHALL** contain exactly one [1..1] **id** (CONF:86-19596).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22724).
8. **SHALL** contain exactly one [1..1] **code** (CONF:86-19586).

- a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:86-19587).
- b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28370).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-19588).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-19589).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", where the code **SHALL** be selected from ValueSet NHSNASAClassCode urn:oid:2.16.840.1.113883.13.10 **DYNAMIC** (CONF:86-19590).

**Table 170: NHSNASAClassCode**

Value Set: NHSNASAClassCode urn:oid:2.16.840.1.113883.13.10 (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the ASA class code.), (Data Element Scope: This observation value records the patient's physical status using the American Society of Anesthesiologists (ASA) Class Codes), (Inclusion Criteria: ), (Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.10/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.10/expansion</a>			
Code	Code System	Code System OID	Print Name
413495001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	American Society of Anesthesiologists physical status class 1 (finding)
413496000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	American Society of Anesthesiologists physical status class 2 (finding)
413497009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	American Society of Anesthesiologists physical status class 3 (finding)
413498004	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	American Society of Anesthesiologists physical status class 4 (finding)
413499007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	American Society of Anesthesiologists physical status class 5 (finding)

**Figure 51: ASA Class Observation Example**

```
<!-- ASA Class Observation -->
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- ASA Class Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.113"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED"
    code="413495001" displayName="Normally healthy patient"/>
</observation>
```

### 3.12 Bacterial Isolate Tested for Carbapenemase Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.222:2014-12-01  
(closed)]

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**Table 171: Bacterial Isolate Tested for Carbapenemase Observation Contexts**

Contained By:	Contains:
<a href="#">Pathogen Identified Observation (LIO) (V2)</a> (optional)	<a href="#">Carbapenemase Test Organizer</a> (optional) <a href="#">Positive Test for Carbapenemase Observation</a> (optional)

This template represents whether or not the bacterial isolate was tested for carbapenemase.

When the bacterial isolate was tested, set the value of @negationInd to false. When the bacterial isolate was not tested, set the value of @negationInd to true. When it is unknown whether or not the bacterial isolate was tested, set the value of @nullFlavor to "UNK".

**Table 172: Bacterial Isolate Tested for Carbapenemase Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.222:2014-12-01)					
@nullFlavor	0..1	MAY		<a href="#">1129-30360</a>	UNK
@classCode	1..1	SHALL		<a href="#">1129-30353</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1129-30354</a>	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = EVN
@negationInd	0..1	SHOULD		<a href="#">1129-30355</a>	
templateId	1..1	SHALL		<a href="#">1129-30501</a>	
@root	1..1	SHALL		<a href="#">1129-30502</a>	2.16.840.1.113883.10.20.5.6.222
@extension	1..1	SHALL		<a href="#">1129-30503</a>	2014-12-01
code	1..1	SHALL		<a href="#">1129-30336</a>	
@code	1..1	SHALL		<a href="#">1129-30345</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1129-30603</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1129-30337</a>	
@code	1..1	SHALL		<a href="#">1129-30346</a>	urn:oid:2.16.840.1.113883.5.1 4 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">1129-30338</a>	
@code	1..1	SHALL		<a href="#">1129-30347</a>	2037-0
@codeSystem	1..1	SHALL		<a href="#">1129-30437</a>	urn:oid:2.16.840.1.113883.6.2 77 (CDCNHSN) = 2.16.840.1.113883.6.277
entryRelationship	1..1	SHOULD		<a href="#">1129-30335</a>	
@typeCode	1..1	SHALL		<a href="#">1129-30356</a>	COMP
organizer	1..1	SHALL		<a href="#">1129-30414</a>	<a href="#">Carbapenemase Test Organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.223:2014-12-01)</a>
entryRelationship	1..1	SHOULD		<a href="#">1129-30438</a>	
@typeCode	1..1	SHALL		<a href="#">1129-</a>	COMP

XPath	Card.	Verb	Data Type	CONF#	Value
				<a href="#">30439</a>	
observation	1..1	SHALL		<a href="#">1129-30440</a>	<a href="#">Positive Test for Carbapenemase Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.225:2014-12-01)</a>

1. **MAY** contain zero or one [0..1] **@nullFlavor="UNK"** (CONF:1129-30360).
2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1129-30353).
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1129-30354).
4. **SHOULD** contain zero or one [0..1] **@negationInd** (CONF:1129-30355).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-30501) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.5.6.222"** (CONF:1129-30502).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-12-01"** (CONF:1129-30503).
6. **SHALL** contain exactly one [1..1] **code** (CONF:1129-30336).
  - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** Assertion (CONF:1129-30345).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1129-30603).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1129-30337).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1129-30346).
8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:1129-30338).
  - a. This value **SHALL** contain exactly one [1..1] **@code="2037-0"** Bacterial isolate tested for carbapenemase (CONF:1129-30347).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.277"** (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1129-30437).

If the value of **@negationInd** is "false" this observation is required to contain the following entryRelationship

9. **SHOULD** contain exactly one [1..1] **entryRelationship** (CONF:1129-30335) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CONF:1129-30356).
  - b. **SHALL** contain exactly one [1..1] [Carbapenemase Test Organizer](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.223:2014-12-01) (CONF:1129-30414).

If any tests were performed this observation is required to contain the following entryRelationship

10. **SHOULD** contain exactly one [1..1] **entryRelationship** (CONF:1129-30438) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CONF:1129-30439).
  - b. **SHALL** contain exactly one [1..1] [Positive Test for Carbapenemase Observation](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.5.6.225:2014-12-01) (CONF:1129-30440).

**Figure 52: Bacterial Isolate Tested for Carbapenemase Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- Bacterial Isolate Tested for Carbapenemase Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.222"
    extension="2014-12-01"/>
  <code code="ASSERTION"
    codeSystem="2.16.840.1.113883.5.4"
    codeSystemName="ActCode"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    code="2037-0"
    displayName="Bacterial isolate tested for carbapenemase"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"/>
  <!-- If the value of negationInd="false" for the Bacterial
    Isolate Tested for Carbapenemase template (meaning it
    was tested) then the following entryRelationship is
    required -->
  <entryRelationship typeCode="COMP">
    <!-- Carbapenemase Test Organizer -->
    <organizer classCode="CLUSTER" moodCode="EVN">
      <!-- C-CDA Result Organizer templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.1"/>
      <!-- Carbapenemase Test Organizer templateId-->
      <templateId root="2.16.840.1.113883.10.20.5.6.223"
        extension="2014-12-01"/>
      ...
    </organizer>
  </entryRelationship>
  <!-- If any tests were performed, this entryRelationship is required -->
  <entryRelationship typeCode="COMP">
    <!-- Positive Test for Carbapenemase Observation -->
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Result Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.2" />
      <!-- Positive Test for Carbapenemase Observation templateId-->
      <templateId root="2.16.840.1.113883.10.20.5.6.225"
        extension="2014-12-01"/>
      ...
    </observation>
  </entryRelationship>
</observation>
```

### 3.13 Blood Collection Location

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.219:2014-12-01 (closed)]

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**Table 173: Blood Collection Location Contexts**

Contained By:	Contains:
<a href="#">Positive Blood Culture Observation (V3)</a> (optional)	

If there is a positive blood culture, this template records the location where the blood was collected.  
If the blood collection location is other than one specified in the value set NHSNBloodCollectionLocation, use value/@nullFlavor="OTH".

**Table 174: Blood Collection Location Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.219:2014-12-01)					
@classCode	1..1	SHALL		<a href="#">1129-30299</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1129-30300</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1129-30504</a>	
@root	1..1	SHALL		<a href="#">1129-30505</a>	2.16.840.1.113883.10.20.5.6.219
@extension	1..1	SHALL		<a href="#">1129-30506</a>	2014-12-01
code	1..1	SHALL		<a href="#">1129-30296</a>	
@code	1..1	SHALL		<a href="#">1129-30304</a>	2331-7
@codeSystem	1..1	SHALL		<a href="#">1129-30305</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
statusCode	1..1	SHALL		<a href="#">1129-30297</a>	
@code	1..1	SHALL		<a href="#">1129-30306</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">1129-30315</a>	urn:oid:2.16.840.1.114222.4.11.7237 (NHSNBloodCollectionLocation)
@nullFlavor	0..1	MAY		<a href="#">1129-30316</a>	OTH

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1129-30299).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1129-30300).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-30504) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.219" (CONF:1129-30505).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-12-01" (CONF:1129-30506).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1129-30296).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="2331-7" Where was the positive blood culture collected (CONF:1129-30304).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1129-30305).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1129-30297).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1129-30306).
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", where the code **SHOULD** be selected from ValueSet [NHSNBloodCollectionLocation](#) urn:oid:2.16.840.1.114222.4.11.7237 **DYNAMIC** (CONF:1129-30315).

If the blood collection location is other than one specified in the value set NHSNBloodCollectionLocation, use nullFlavor="OTH"

- a. This value **MAY** contain zero or one [0..1] **@nullFlavor**="OTH" (CONF:1129-30316).

**Table 175: NHSNBloodCollectionLocation**

Value Set: NHSNBloodCollectionLocation urn:oid:2.16.840.1.114222.4.11.7237 (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the location where blood was collected.), (Data Element Scope: If there is a positive blood culture, this coded observation value records the location where the blood was collected.), (Inclusion Criteria: ), (Exclusion Criteria: )  This value set was imported on 12/8/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7237/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7237/expansion</a>			
Code	Code System	Code System OID	Print Name
2332-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Hospital (on the day of or the day following admission) or Emergency Department
2333-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Dialysis clinic



**Figure 53: Blood Collection Location Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Blood Collection Location templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.219"
    extension="2014-12-01"/>
  <code code="2331-7"
    displayName="Where was the positive blood culture collected"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="2333-3"
    displayName="Dialysis Clinic"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN" />
</observation>
```

**Figure 54: Blood Collection Location - Other Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Blood Collection Location templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.219"
    extension="2014-12-01"/>
  <code code="2331-7"
    displayName="Where was the positive blood culture collected"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" nullFlavor="OTH" />
</observation>
```

### 3.14 Blood Product Usage Summary Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.237:2016-08-01  
(closed)]

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**Table 176: Blood Product Usage Summary Observation (V2) Contexts**

Contained By:	Contains:
<a href="#">Summary Encounter (HV) (V2)</a> (required)	<a href="#">ISBT Product Code Summary Observation (V2)</a> (optional)

This template represents the number of units transfused, aliquots transfused, or total discards for each type of blood product.

If the value = 0 or type of product is one of the following, there **SHALL NOT** be a contained observation:

- Red Blood Cells/Whole Blood Derived/Total (3401-7, 3402-5, 3470-2)
- Red Blood Cells/Apheresis/Total (3409-0, 3410-8, 3477-7)

- Platelets/Whole Blood Derived/Total (3417-3, 3484-3)
- Platelets/Apheresis/Total (3421-5, 3422-3, 3490-0)
- Red Blood Cells/Whole Blood Derived/S-303 and Riboflavin Treated/Total (3544-4, 3545-1, 3546-9)
- Red Blood Cells/Apheresis/S-303 and Riboflavin Treated/Total (3553-5, 3554-3, 3555-0)
- Platelets/Whole Blood Derived/Psoralen and Riboflavin Treated/Total (3502-2, 3504-8)
- Platelets/Apheresis/Psoralen and Riboflavin Treated/Total (3511-3, 3512-1, 3513-9)
- Plasma/Whole Blood Derived/Psoralen and Riboflavin Treated/Total (3520-4, 3521-2, 3522-0)
- Plasma/Apheresis/Psoralen and Riboflavin Treated/Total (3529-5, 3530-3, 3531-1)
- Cryoprecipitate/Psoralen and Riboflavin Treated/Total (3562-6, 3563-4)

If the value is > 0 and the type of product is not one of those listed above, then each specific subcategory product that is > 0 **SHALL** be listed in a separate contained ISBT Product Code Summary Observation.

**Table 177: Blood Product Usage Summary Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.237:2016-08-01)					
@classCode	1..1	SHALL		<a href="#">3247-30705</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">3247-30706</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">3247-30701</a>	
@root	1..1	SHALL		<a href="#">3247-30707</a>	2.16.840.1.113883.10.20.5.6.237
@extension	1..1	SHALL		<a href="#">3247-30714</a>	2016-08-01
code	1..1	SHALL		<a href="#">3247-30702</a>	
@code	1..1	SHALL		<a href="#">3247-30715</a>	urn:oid:2.16.840.1.114222.4.11.7353 (NHSNSummaryBloodProductUsage)
statusCode	1..1	SHALL		<a href="#">3247-30703</a>	
@code	1..1	SHALL		<a href="#">3247-30713</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	INT	<a href="#">3247-30704</a>	
entryRelationship	0..*	SHOULD		<a href="#">3247-30728</a>	
observation	1..1	SHALL		<a href="#">3247-30729</a>	<a href="#">ISBT Product Code Summary Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.238:2016-08-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3247-30705).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3247-30706).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3247-30701) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.237" (CONF:3247-30707).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2016-08-01" (CONF:3247-30714).
4. **SHALL** contain exactly one [1..1] **code** (CONF:3247-30702).
  - a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [NHSNSummaryBloodProductUsage](#) urn:oid:2.16.840.1.114222.4.11.7353 **DYNAMIC** (CONF:3247-30715).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3247-30703).

- a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3247-30713).
6. **SHALL** contain exactly one [1..1] value with @xsi:type="INT" (CONF:3247-30704).
7. **SHOULD** contain zero or more [0..\*] entryRelationship (CONF:3247-30728).
  - a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] [ISBT Product Code Summary Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.238:2016-08-01) (CONF:3247-30729).
8. If the value = 0 or type of product is one of the following, there **SHALL NOT** be a contained observation:

**Table 178: NHSNSummaryBloodProductUsage**

Value Set: NHSNSummaryBloodProductUsage urn:oid:2.16.840.1.114222.4.11.7353 (Clinical Focus: NHSN surveillance reporting: monthly reporting denominators for hemovigilance),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 12/13/2023 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7353/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7353/expansion</a>			
Code	Code System	Code System OID	Print Name
3401-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Total number of units transfused: Red Blood Cells: Whole blood-derived
3402-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Total number of aliquots transfused: Red Blood Cells: Whole blood-derived
...			

**Figure 55: Blood Product Usage Summary Observation (V2) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- [HAI R3D1.1] Blood Product Usage Summary Observation (V2) -->
  <templateId root="2.16.840.1.113883.10.20.5.6.237" extension="2016-08-01" />
  <code codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="3467-8"
    displayName="Total number of units transfused - Whole blood" />
  <statusCode code="completed" />
  <value xsi:type="INT" value="100" />
  <!--
    If the value = 0 or type of product is one of the following,
    there SHALL NOT be a contained observation:
      Red Blood Cells/Whole Blood Derived/Total (3401-7, 3402-5, 3470-2)
      Red Blood Cells/Apheresis/Total (3409-0, 3410-8, 3477-7)
      Platelets/Whole Blood Derived/Total (3417-3, 3484-3)
      Platelets/Apheresis/Total (3421-5, 3422-3, 3490-0)
      Red Blood Cells/Whole Blood Derived/S-303 and Riboflavin Treated/Total (3544-4, 3545-
1, 3546-9)
      Red Blood Cells/Apheresis/S-303 and Riboflavin Treated/Total (3553-5, 3554-3, 3555-0)
      Platelets/Whole Blood Derived/Psoralein and Riboflavin Treated/Total (3502-2, 3504-8)
      Platelets/Apheresis/Psoralein and Riboflavin Treated/Total (3511-3, 3512-1, 3513-9)
      Plasma/Whole Blood Derived/Psoralein and Riboflavin Treated/Total (3520-4, 3521-2,
3522-0)
      Plasma/Apheresis/Psoralein and Riboflavin Treated/Total (3529-5, 3530-3, 3531-1)
      Cryoprecipitate/Psoralein and Riboflavin Treated/Total (3562-6, 3563-4)
    If the value is > 0 and the type of product is not one of those listed above,
    then each specific subcategory product that is > 0 SHALL be listed in a
    separate contained ISBT Product Code Summary Observation.
  -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- ISBT Product Code Summary Observation (V2) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.238" extension="2016-08-01" />
      ..
    </observation>
  </entryRelationship>
  ...
</observation>
```

### 3.15 Blood Sample Collected for Culture Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.239:2016-08-01 (closed)]

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**Table 179: Blood Sample Collected for Culture Observation Contexts**

Contained By:	Contains:
<a href="#">IV Antibiotic Start Clinical Statement (V4)</a> (optional)	

This observation records whether a blood sample was collected for culture when there was a new antimicrobial start. If there was no antimicrobial start then this template will not be included.

When a blood sample was collected for culture when there was a new antimicrobial start, set the value of @negationInd to false. When a blood sample was not collected for culture when there was a new antimicrobial start, set the value of @negationInd to true.

**Table 180: Blood Sample Collected for Culture Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.239:2016-08-01)					
@classCode	1..1	SHALL		<a href="#">3247-11</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">3247-12</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">3247-14</a>	
templateId	1..1	SHALL		<a href="#">3247-1</a>	
@root	1..1	SHALL		<a href="#">3247-5</a>	2.16.840.1.113883.10.20.5.6.239
@extension	1..1	SHALL		<a href="#">3247-6</a>	2016-08-01
code	1..1	SHALL		<a href="#">3247-2</a>	
@code	1..1	SHALL		<a href="#">3247-7</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">3247-8</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">3247-4</a>	
@code	1..1	SHALL		<a href="#">3247-13</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">3247-3</a>	
@code	1..1	SHALL		<a href="#">3247-9</a>	2339-0
@codeSystem	1..1	SHALL		<a href="#">3247-10</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3247-11).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3247-12).

When a blood sample was collected for culture when there was a new antimicrobial start, set the value of @negationInd to false. When a blood sample was not collected for culture when there was a new antimicrobial start, set the value of @negationInd to true.

3. **SHALL** contain exactly one [1..1] @negationInd (CONF:3247-14).
4. **SHALL** contain exactly one [1..1] templateId (CONF:3247-1) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.239" (CONF:3247-5).

- b. **SHALL** contain exactly one [1..1] **@extension**="2016-08-01" (CONF:3247-6).
- 5. **SHALL** contain exactly one [1..1] **code** (CONF:3247-2).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:3247-7).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3247-8).
- 6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3247-4).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3247-13).
- 7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:3247-3).
  - a. This value **SHALL** contain exactly one [1..1] **@code**="2339-0" Blood sample collected for culture (CONF:3247-9).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3247-10).

**Figure 56: Blood Sample Collected for Culture Example**

```
<!-- Blood sample was collected so @negationInd="false" -->
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- [HAI R3D1.1] Blood Sample Collected for Culture Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.239" extension="2016-08-01" />
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
  <statusCode code="completed" />
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="2339-0"
    displayName="Blood sample collected for culture" />
</observation>
```

### 3.16 Bloodstream Infection Evidence Type Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.114 (closed)]

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**Table 181: Bloodstream Infection Evidence Type Observation Contexts**

Contained By:	Contains:
<a href="#">Infection-Type Observation</a> (optional)	

This observation records whether the bloodstream infection being reported was confirmed by a positive blood culture.

**Table 182: Bloodstream Infection Evidence Type Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.114)					
@classCode	1..1	SHALL		<a href="#">86-19597</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-19598</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-19599</a>	false
templateId	1..1	SHALL		<a href="#">86-28215</a>	
@root	1..1	SHALL		<a href="#">86-28216</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-19608</a>	
@root	1..1	SHALL		<a href="#">86-19609</a>	2.16.840.1.113883.10.20.5.6.114
id	1..1	SHALL		<a href="#">86-19610</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22725</a>	NA
code	1..1	SHALL		<a href="#">86-19600</a>	
@code	1..1	SHALL		<a href="#">86-19601</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28371</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-19602</a>	
@code	1..1	SHALL		<a href="#">86-19603</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-19604</a>	urn:oid:2.16.840.1.113883.13.7 (NHSNBloodStreamInfectionEvidenceTypeCode)

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-19597).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-19598).
4. **SHALL** contain exactly one [1..1] **@negationInd**="false" (CONF:86-19599).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28215) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28216).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-19608) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.114" (CONF:86-19609).
7. **SHALL** contain exactly one [1..1] **id** (CONF:86-19610).



- a. This id **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22725).
8. **SHALL** contain exactly one [1..1] code (CONF:86-19600).
  - a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-19601).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28371).
9. **SHALL** contain exactly one [1..1] statusCode (CONF:86-19602).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-19603).
10. **SHALL** contain exactly one [1..1] value with @xsi:type="CD", where the code **SHALL** be selected from ValueSet [NHSNBloodStreamInfectionEvidenceTypeCode](#) urn:oid:2.16.840.1.113883.13.7 **DYNAMIC** (CONF:86-19604).

**Table 183: NHSNBloodStreamInfectionEvidenceTypeCode**

Value Set: NHSNBloodStreamInfectionEvidenceTypeCode urn:oid:2.16.840.1.113883.13.7 (Clinical Focus: NHSN surveillance reporting: Used to express a laboratory-confirmed bloodstream infection),(Data Element Scope: This observation value records whether the bloodstream infection being reported was confirmed by a positive blood culture.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.7/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.7/expansion</a>			
Code	Code System	Code System OID	Print Name
1613-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Laboratory-confirmed bloodstream infection

**Figure 57: Bloodstream Infection Evidence Type Observation Example**

```

<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Bloodstream Infection Evidence Type Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.114"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.5.4"
        code="ASSERTION"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
        codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        value="1613-9"
        displayName=" Laboratory-confirmed bloodstream infection"/>
</observation>

```

### 3.17 Buttonhole Cannulation Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.115 (closed)]

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**Table 184: Buttonhole Cannulation Observation Contexts**

Contained By:	Contains:
<a href="#">Vascular Access Type Observation</a> (optional)	

This observation records whether the patient's fistula is accessed by buttonhole cannulation. This observation does not record a specific dialysis event but rather the technique in current use with the patient.

When buttonhole cannulation is used, set the value of @negationInd to false. When the buttonhole cannulation is not used, set the value of @negationInd to true.

**Table 185: Buttonhole Cannulation Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.115)					
@classCode	1..1	SHALL		<a href="#">86-21764</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-21765</a>	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-21766</a>	
templateId	1..1	SHALL		<a href="#">86-28217</a>	
@root	1..1	SHALL		<a href="#">86-28218</a>	2.16.840.1.113883.10.20.22.4 .13
templateId	1..1	SHALL		<a href="#">86-21775</a>	
@root	1..1	SHALL		<a href="#">86-21776</a>	2.16.840.1.113883.10.20.5.6. 115
id	1..1	SHALL		<a href="#">86-21777</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22726</a>	NA
code	1..1	SHALL		<a href="#">86-21767</a>	
@code	1..1	SHALL		<a href="#">86-21768</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28372</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-21769</a>	
@code	1..1	SHALL		<a href="#">86-21770</a>	urn:oid:2.16.840.1.113883.5.1 4 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-21771</a>	
@code	1..1	SHALL		<a href="#">86-21772</a>	urn:oid:2.16.840.1.113883.6.2 77 (CDCNHSN) = 2308-5

1. Conforms to Procedure Activity Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.13).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21764).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21765).

When buttonhole cannulation is used, set the value of **@negationInd** to false. When the buttonhole cannulation is not used, set the value of **@negationInd** to true.

4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:86-21766).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28217) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.13" (CONF:86-28218).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-21775) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.115" (CONF:86-21776).
7. **SHALL** contain exactly one [1..1] **id** (CONF:86-21777).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22726).
8. **SHALL** contain exactly one [1..1] **code** (CONF:86-21767).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:86-21768).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28372).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-21769).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-21770).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:86-21771).
  - a. This value **SHALL** contain exactly one [1..1] **@code**="2308-5" Buttonhole cannulation (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277 **STATIC**) (CONF:86-21772).

**Figure 58: Buttonhole Cannulation Observation Example**

```
<!-- Buttonhole cannulation is used -->
<observation classCode="OBS" moodCode="EVN" negationInd="true">
  <!-- C-CDA Procedure Activity Observation -->
  <templateId root="2.16.840.1.113883.10.20.22.4.13"/>
  <!-- HAI Buttonhole Cannulation Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.115"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.5.4"
        code="ASSERTION"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
        codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        code="2308-5"
        displayName="Buttonhole cannulation"/>
</observation>
```

### 3.18 Carbapenemase Test Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.224:2014-12-01  
(closed)]

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**Table 186: Carbapenemase Test Observation Contexts**

Contained By:	Contains:
<a href="#">Carbapenemase Test Organizer</a> (required)	

This clinical statement represents a carbapenemase test. The type of test is recorded in the code element.

If the type of test is other than one specified in NHSNCarbaTestMethod, use code/@nullFlavor="OTH" and enter the testing method in code/originalText. If the type of test is unknown, use code/@nullFlavor="UNK".

**Table 187: Carbapenemase Test Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.224:2014-12-01)					
@classCode	1..1	SHALL		<a href="#">1129-30379</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1129-30380</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1129-30375</a>	
@root	1..1	SHALL		<a href="#">1129-30381</a>	2.16.840.1.113883.10.20.22.4.2
templateId	1..1	SHALL		<a href="#">1129-30507</a>	
@root	1..1	SHALL		<a href="#">1129-30508</a>	2.16.840.1.113883.10.20.5.6.224
@extension	1..1	SHALL		<a href="#">1129-30509</a>	2014-12-01
id	1..1	SHALL		<a href="#">1129-30376</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-30382</a>	NA
code	1..1	SHALL		<a href="#">1129-30383</a>	urn:oid:2.16.840.1.114222.4.11.7240 (NHSNCarbaTestMethod)
@nullFlavor	0..1	MAY		<a href="#">1129-30389</a>	urn:oid:2.16.840.1.113883.10.20.5.9.1 (NullValues_UNK_OTH)
originalText	0..1	MAY		<a href="#">1129-30390</a>	
statusCode	1..1	SHALL		<a href="#">1129-30377</a>	
@code	1..1	SHALL		<a href="#">1129-30384</a>	completed
effectiveTime	1..1	SHALL		<a href="#">1129-30378</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-30385</a>	NA
value	1..1	SHALL	CD	<a href="#">1129-30386</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-30388</a>	NA

1. Conforms to Result Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.2).

2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1129-30379).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1129-30380).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-30375) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.2" (CONF:1129-30381).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-30507) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.224" (CONF:1129-30508).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-12-01" (CONF:1129-30509).
6. **SHALL** contain exactly one [1..1] **id** (CONF:1129-30376).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:1129-30382).

If the type of test is other than one specified in **NHSCarbaTestMethod**, use code/**@nullFlavor**="OTH" and enter the testing method in code/originalText. If the type of test is unknown, use code/**@nullFlavor**="UNK".

7. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [NHSCarbaTestMethod](#) urn:oid:2.16.840.1.114222.4.11.7240 **DYNAMIC** (CONF:1129-30383).
  - a. This code **MAY** contain zero or one [0..1] **@nullFlavor**, which **SHALL** be selected from ValueSet [NullValues UNK OTH](#) urn:oid:2.16.840.1.113883.10.20.5.9.1 **STATIC** 2014-11-01 (CONF:1129-30389).
  - b. This code **MAY** contain zero or one [0..1] **originalText** (CONF:1129-30390).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1129-30377).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CONF:1129-30384).
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1129-30378).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:1129-30385).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:1129-30386).
  - a. This value **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:1129-30388).

**Table 188: NNSNCarbaTestMethod**

Value Set: NNSNCarbaTestMethod urn:oid:2.16.840.1.114222.4.11.7240 (Clinical Focus: NNSN surveillance reporting: Test methods to identify carbapenemase producers),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 12/8/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7240/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7240/expansion</a>			
Code	Code System	Code System OID	Print Name
2039-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	PCR: Klebsiella pneumoniae carbapenemase
2040-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	PCR: New Delhi metallo-beta-lactamase
2041-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	PCR: Imipenemase
2042-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	PCR: Verona integron-encoded metallo-beta-lactamase
2043-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	PCR: Oxacillinase-48 like
2044-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Modified Hodge test
2045-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Carba NP
2046-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Metallo-beta-lactamase gradient strip
2047-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Metallo-beta-lactamase screen

**Table 189: NullValues\_UNK\_OTH**

Value Set: NullValues_UNK_OTH urn:oid:2.16.840.1.113883.10.20.5.9.1 Null values of unknown and other. Value Set Source: <a href="https://trifolia.lantanagroup.com/TerminologyManagement/ValueSet/View/2843">https://trifolia.lantanagroup.com/TerminologyManagement/ValueSet/View/2843</a>			
Code	Code System	Code System OID	Print Name
UNK	HL7NullFlavor	urn:oid:2.16.840.1.113883.5.1008	Unknown
OTH	HL7NullFlavor	urn:oid:2.16.840.1.113883.5.1008	Other

**Figure 59: Carbapenemase Test Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- C-CDA Result Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
  <!-- Carbapenemase Test Observation templateId-->
  <templateId root="2.16.840.1.113883.10.20.5.6.224"
    extension="2014-12-01"/>
  <id nullFlavor="NA"/>
  <code code="2039-6"
    displayName="(PCR-KPC) Polymerase chain reaction -
      Klebsiella pneumoniae carbapenemase"
    codeSystem="2.16.840.1.113883.6.277" codeSystemName="cdcNHSN"/>
  <statusCode code="completed"/>
  <effectiveTime nullFlavor="NA"/>
  <value xsi:type="CD" nullFlavor="NA"/>
</observation>
```

**Figure 60: Carbapenemase Test Observation - Other Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- C-CDA Result Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
  <!-- Carbapenemase Test Observation templateId-->
  <templateId root="2.16.840.1.113883.10.20.5.6.224"
    extension="2014-12-01"/>
  <id nullFlavor="NA"/>
  <code nullFlavor="OTH">
    <originalText>Other carbapenemase test not in value set</originalText>
  </code>
  <statusCode code="completed"/>
  <effectiveTime nullFlavor="NA"/>
  <value xsi:type="CD" nullFlavor="NA"/>
</observation>
```

### 3.19 Carbapenemase Test Organizer

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.223:2014-12-01  
(closed)]

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**Table 190: Carbapenemase Test Organizer Contexts**

Contained By:	Contains:
<a href="#">Bacterial Isolate Tested for Carbapenemase Observation</a> (optional)	<a href="#">Carbapenemase Test Observation</a> (required)

This organizer represents the set of specific tests conducted on a bacterial isolate to test for carbapenemase.



**Table 191: Carbapenemase Test Organizer Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.223:2014-12-01)					
@classCode	1..1	SHALL		<a href="#">1129-30367</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">1129-30368</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1129-30362</a>	
@root	1..1	SHALL		<a href="#">1129-30369</a>	2.16.840.1.113883.10.20.22.4.1
templateId	1..1	SHALL		<a href="#">1129-30510</a>	
@root	1..1	SHALL		<a href="#">1129-30511</a>	2.16.840.1.113883.10.20.5.6.223
@extension	1..1	SHALL		<a href="#">1129-30512</a>	2014-12-01
id	1..1	SHALL		<a href="#">1129-30363</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-30370</a>	NA
code	1..1	SHALL		<a href="#">1129-30364</a>	
@code	1..1	SHALL		<a href="#">1129-30371</a>	18725-2
@codeSystem	1..1	SHALL		<a href="#">1129-30374</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1129-30365</a>	
@code	1..1	SHALL		<a href="#">1129-30372</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
component	1..*	SHALL		<a href="#">1129-30361</a>	
@typeCode	1..1	SHALL		<a href="#">1129-30391</a>	COMP
observation	1..1	SHALL		<a href="#">1129-30366</a>	<a href="#">Carbapenemase Test Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.224:2014-12-01)</a>

1. Conforms to Result Organizer template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.1).
2. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1129-30367).

3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1129-30368).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-30362) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.1" (CONF:1129-30369).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-30510) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.223" (CONF:1129-30511).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-12-01" (CONF:1129-30512).
6. **SHALL** contain exactly one [1..1] **id** (CONF:1129-30363).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:1129-30370).
7. **SHALL** contain exactly one [1..1] **code** (CONF:1129-30364).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="18725-2" Microbiology studies (CONF:1129-30371).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1129-30374).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1129-30365).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1129-30372).
9. **SHALL** contain at least one [1..\*] **component** (CONF:1129-30361) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1129-30391).
  - b. **SHALL** contain exactly one [1..1] [Carbapenemase Test Observation](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.224:2014-12-01) (CONF:1129-30366).

**Figure 61: Carbapenemase Test Organizer Example**

```
<organizer classCode="CLUSTER" moodCode="EVN">
  <!-- C-CDA Result Organizer templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.1"/>
  <!-- Carbapenemase Test Organizer templateId-->
  <templateId root="2.16.840.1.113883.10.20.5.6.223"
    extension="2014-12-01"/>
  <id nullFlavor="NA"/>
  <code code="18725-2" displayName="Microbiology Studies"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"/>
  <statusCode code="completed"/>
  <component typeCode="COMP">
    <!-- Carbapenemase Test Observation -->
    <observation classCode="OBS" moodCode="EVN">
      <!-- C-CDA Result Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
      <!-- Carbapenemase Test Observation templateId-->
      <templateId root="2.16.840.1.113883.10.20.5.6.224"
        extension="2014-12-01"/>
      ...
    </observation>
  </component>
  <component>
    <observation classCode="OBS" moodCode="EVN">
      <!-- C-CDA Result Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
      <!-- Carbapenemase Test Observation templateId-->
      <templateId root="2.16.840.1.113883.10.20.5.6.224"
        extension="2014-12-01"/>
      ...
    </observation>
  </component>
  <component>
    <observation classCode="OBS" moodCode="EVN">
      <!-- C-CDA Result Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
      <!-- Carbapenemase Test Observation templateId-->
      <templateId root="2.16.840.1.113883.10.20.5.6.224"
        extension="2014-12-01"/>
      ...
    </observation>
  </component>
</organizer>
```

### 3.20 Carbapenemase Type Identified Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.226:2014-12-01 (closed)]

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**Table 192: Carbapenemase Type Identified Observation Contexts**

Contained By:	Contains:
<a href="#">Positive Test for Carbapenemase Observation</a> (optional)	

This template represents a carbapenemase type identified when the bacterial isolate was tested. If the type of carbapenemase is other than one specified in NHSNCarbaDetectType, use value/@nullFlavor="OTH" and enter the carbapenemase type in value/originalText.

**Table 193: Carbapenemase Type Identified Observation Constraints Overview**

<b>XPath</b>	<b>Card.</b>	<b>Verb</b>	<b>Data Type</b>	<b>CONF#</b>	<b>Value</b>
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.226:2014-12-01)					
@classCode	1..1	SHALL		<a href="#">1129-30453</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1129-30454</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1129-30442</a>	
@root	1..1	SHALL		<a href="#">1129-30448</a>	2.16.840.1.113883.10.20.22.4.2
templateId	1..1	SHALL		<a href="#">1129-30513</a>	
@root	1..1	SHALL		<a href="#">1129-30514</a>	2.16.840.1.113883.10.20.5.6.226
@extension	1..1	SHALL		<a href="#">1129-30515</a>	2014-12-01
id	1..1	SHALL		<a href="#">1129-30443</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-30450</a>	NA
code	1..1	SHALL		<a href="#">1129-30459</a>	
@code	1..1	SHALL		<a href="#">1129-30460</a>	2049-5
@codeSystem	1..1	SHALL		<a href="#">1129-30461</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
statusCode	1..1	SHALL		<a href="#">1129-30444</a>	
@code	1..1	SHALL		<a href="#">1129-30451</a>	completed
effectiveTime	1..1	SHALL		<a href="#">1129-30445</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-30452</a>	NA
value	1..1	SHALL	CD	<a href="#">1129-30447</a>	urn:oid:2.16.840.1.114222.4.11.7241 (NHSNCarbaDetectType)
@nullFlavor	0..1	MAY		<a href="#">1129-30457</a>	OTH
originalText	0..1	MAY		<a href="#">1129-30458</a>	

1. Conforms to Result Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.2).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1129-30453).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1129-30454).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-30442) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.2" (CONF:1129-30448).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-30513) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.226" (CONF:1129-30514).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-12-01" (CONF:1129-30515).
6. **SHALL** contain exactly one [1..1] **id** (CONF:1129-30443).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:1129-30450).
7. **SHALL** contain exactly one [1..1] **code** (CONF:1129-30459).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="2049-5" Carbapenemase Type Identified (CONF:1129-30460).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1129-30461).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1129-30444).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CONF:1129-30451).
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1129-30445).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:1129-30452).

If the type of carbapenemase is other than one specified in NHSNCarbaDetectType, use value/**@nullFlavor**="OTH" and enter the carbapenemase type in value/originalText.

10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", where the code **SHOULD** be selected from ValueSet [NHSNCarbaDetectType](#) urn:oid:2.16.840.1.114222.4.11.7241 **DYNAMIC** (CONF:1129-30447).
  - a. This value **MAY** contain zero or one [0..1] **@nullFlavor**="OTH" (CONF:1129-30457).
  - b. This value **MAY** contain zero or one [0..1] **originalText** (CONF:1129-30458).

**Table 194: NHSNCarbaDetectType**

Value Set: NHSNCarbaDetectType urn:oid:2.16.840.1.114222.4.11.7241 (Clinical Focus: NHSN surveillance reporting: Types of carbapenemase detected in a bacterial isolate),(Data Element Scope: Coded observation value that represents a carbapenemase type identified when the bacterial isolate was tested.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 12/8/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7241/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7241/expansion</a>			
Code	Code System	Code System OID	Print Name
2050-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Klebsiella pneumoniae carbapenemase
2051-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	New Delhi metallo-beta-lactamase
2052-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Imipenemase
2053-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Verona integron-encoded metallo-beta-lactamase
2054-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Oxacillinase-48-like
2055-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Nonspecific carbapenemase activity
2056-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Nonspecific metallo-beta-lactamase activity

**Figure 62: Carbapenemase Type Identified Observation Example**

```

<observation classCode="OBS" moodCode="EVN">
  <!-- C-CDA Result Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
  <!-- Carbapenemase Type Identified Observation templateId-->
  <templateId root="2.16.840.1.113883.10.20.5.6.226"
    extension="2014-12-01"/>
  <id nullFlavor="NA"/>
  <code code="2049-5"
    displayName="Carbapenemase Type Identified"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"/>
  <statusCode code="completed"/>
  <effectiveTime nullFlavor="NA"/>
  <value xsi:type="CD" code="2052-9"
    displayName="(IMP) Imipenemase"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"/>
</observation>

```

**Figure 63: Carbapenemase Type Identified Observation - Other Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- C-CDA Result Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
  <!-- Carbapenemase Type Identified Observation templateId-->
  <templateId root="2.16.840.1.113883.10.20.5.6.226"
    extension="2014-12-01"/>
  <id nullFlavor="NA"/>
  <code code="2049-5"
    displayName="Carbapenemase Type Identified"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"/>
  <statusCode code="completed"/>
  <effectiveTime nullFlavor="NA"/>
  <value xsi:type="CD" nullFlavor="OTH">
    <originalText>Other carbapenemase type not in value set</originalText>
  </value>
</observation>
```

### 3.21 Central-Line Insertion Practice Clinical Statement (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.116:2014-12-01  
(closed)]

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**Table 195: Central-Line Insertion Practice Clinical Statement (V2) Contexts**

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a CLIP Report (V2)</a> (required)	<a href="#">Solutions Dried Observation</a> (required) <a href="#">Central-Line Insertion Preparation Organizer (V2)</a> (required)

This clinical statement records whether specified infection-prevention actions were performed in a specified sequence.

Recording sequence is expressed with the CDA entryRelationship/sequenceNumber feature. This follows the RIM modeling for definitions (e.g., of a protocol).

A @negationInd on each step expresses whether the step did or did not occur in sequence.

Below are the items, in sequence, to record within the Central-Line Insertion Practice Report:

- preparation
- hand hygiene
- sterile barriers
- skin solution(s) applied
- skin solution(s) had dried



**Table 196: Central-Line Insertion Practice Clinical Statement (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.116:2014-12-01)					
@classCode	1..1	SHALL		<a href="#">1129-22005</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1129-22006</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">1129-22007</a>	false
templateId	1..1	SHALL		<a href="#">1129-30516</a>	
@root	1..1	SHALL		<a href="#">1129-30517</a>	2.16.840.1.113883.10.20.22.4.12
templateId	1..1	SHALL		<a href="#">1129-22965</a>	
@root	1..1	SHALL		<a href="#">1129-28111</a>	2.16.840.1.113883.10.20.5.6.116
@extension	1..1	SHALL		<a href="#">1129-30518</a>	2014-12-01
id	1..1	SHALL		<a href="#">1129-22966</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-22968</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA
code	1..1	SHALL		<a href="#">1129-22018</a>	
@code	1..1	SHALL		<a href="#">1129-22019</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 3108-8
entryRelationship	1..1	SHALL		<a href="#">1129-22008</a>	
@typeCode	1..1	SHALL		<a href="#">1129-22009</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
sequenceNumber	1..1	SHALL		<a href="#">1129-22011</a>	
@value	1..1	SHALL		<a href="#">1129-22012</a>	1
organizer	1..1	SHALL		<a href="#">1129-30425</a>	<a href="#">Central-Line Insertion Preparation Organizer (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.179:2014-12-01)</a>
entryRelationship	1..1	SHALL		<a href="#">1129-22013</a>	
@typeCode	1..1	SHALL		<a href="#">1129-22014</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP

XPath	Card.	Verb	Data Type	CONF#	Value
sequenceNumber	1..1	SHALL		<a href="#">1129-22016</a>	
@value	1..1	SHALL		<a href="#">1129-22017</a>	2
observation	1..1	SHALL		<a href="#">1129-22015</a>	<a href="#">Solutions Dried Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.163)</a>

1. Conforms to Procedure Activity Act template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.12).
2. **SHALL** contain exactly one [1..1] **@classCode**="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1129-22005).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1129-22006).
4. **SHALL** contain exactly one [1..1] **@negationInd**="false" (CONF:1129-22007).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-30516) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.12" (CONF:1129-30517).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-22965) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.116" (CONF:1129-28111).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-12-01" (CONF:1129-30518).
7. **SHALL** contain exactly one [1..1] **id** (CONF:1129-22966).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1129-22968).
8. **SHALL** contain exactly one [1..1] **code** (CONF:1129-22018).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="3108-8" Central line insertion practice (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277 **STATIC**) (CONF:1129-22019).
9. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:1129-22008) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1129-22009).
  - b. **SHALL** contain exactly one [1..1] **sequenceNumber** (CONF:1129-22011).
    - i. This sequenceNumber **SHALL** contain exactly one [1..1] **@value**="1" (CONF:1129-22012).
  - c. **SHALL** contain exactly one [1..1] [Central-Line Insertion Preparation Organizer \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.179:2014-12-01) (CONF:1129-30425).
10. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:1129-22013) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1129-22014).
- b. **SHALL** contain exactly one [1..1] **sequenceNumber** (CONF:1129-22016).
  - i. This **sequenceNumber** **SHALL** contain exactly one [1..1] @value="2" (CONF:1129-22017).
- c. **SHALL** contain exactly one [1..1] Solutions Dried Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.163) (CONF:1129-22015).

**Figure 64: Central-Line Insertion Practice Clinical Statement (V2) Example**

```

<act moodCode="EVN" classCode="ACT" negationInd="false">
  <!-- C-CDA Procedure Activity Act templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.12" />
  <!-- HAI Central-line Insertion Practice Clinical Statement (V2) templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.116"
    extension="2014-12-01" />
  <id nullFlavor="NA" />
  <code code="3108-8"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    displayName="Central line insertion practice" />
  <entryRelationship typeCode="COMP">
    <sequenceNumber value="1" />
    <organizer moodCode="EVN" classCode="CLUSTER">
      <!-- HAI Central-Line Insertion Preparation Organizer (V2) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.179"
        extension="2014-12-01" />
      ...
    </organizer>
  </entryRelationship>
  <entryRelationship typeCode="COMP">
    <sequenceNumber value="2" />
    <observation moodCode="EVN" classCode="OBS" negationInd="false">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4" />
      <!-- HAI Solutions Dried Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.163" />
      ...
    </observation>
  </entryRelationship>
</act>

```

### 3.22 Central-Line Insertion Preparation Organizer (V2)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.179:2014-12-01 (closed)]

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Table 197: Central-Line Insertion Preparation Organizer (V2) Contexts

Contained By:	Contains:
<a href="#">Central-Line Insertion Practice Clinical Statement (V2)</a> (required)	<a href="#">Sterile Barriers Applied Clinical Statement</a> (required) <a href="#">Hand Hygiene Performed Clinical Statement</a> (required) <a href="#">Skin-Preparation Solutions Applied Organizer (V2)</a> (required)

This organizer represents the first step in the central-line insertion practice sequence. It records three types of preparations (which may have occurred in any order): hand hygiene, skin-preparation solutions, and sterile barriers.

**Table 198: Central-Line Insertion Preparation Organizer (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.179:2014-12-01)					
@classCode	1..1	SHALL		<a href="#">1129-22086</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">1129-22087</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1129-22088</a>	
@root	1..1	SHALL		<a href="#">1129-22089</a>	2.16.840.1.113883.10.20.5.6.179
@extension	1..1	SHALL		<a href="#">1129-30279</a>	2014-12-01
id	1..1	SHALL		<a href="#">1129-22090</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-22733</a>	NA
statusCode	1..1	SHALL		<a href="#">1129-22091</a>	
@code	1..1	SHALL		<a href="#">1129-23060</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
component	1..1	SHALL		<a href="#">1129-22092</a>	
procedure	1..1	SHALL		<a href="#">1129-23057</a>	<a href="#">Hand Hygiene Performed Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.130)</a>
component	1..1	SHALL		<a href="#">1129-22093</a>	
organizer	1..1	SHALL		<a href="#">1129-30426</a>	<a href="#">Skin-Preparation Solutions Applied Organizer (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.183:2014-12-01)</a>
component	1..1	SHALL		<a href="#">1129-22094</a>	
procedure	1..1	SHALL		<a href="#">1129-23059</a>	<a href="#">Sterile Barriers Applied Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.167)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="CLUSTER" Cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1129-22086).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1129-22087).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-22088) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.179" (CONF:1129-22089).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-12-01" (CONF:1129-30279).
- 4. **SHALL** contain exactly one [1..1] **id** (CONF:1129-22090).
  - a. This **id** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:1129-22733).
- 5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1129-22091).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1129-23060).
- 6. **SHALL** contain exactly one [1..1] **component** (CONF:1129-22092) such that it
  - a. **SHALL** contain exactly one [1..1] Hand Hygiene Performed Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.130) (CONF:1129-23057).
- 7. **SHALL** contain exactly one [1..1] **component** (CONF:1129-22093) such that it
  - a. **SHALL** contain exactly one [1..1] Skin-Preparation Solutions Applied Organizer (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.183:2014-12-01) (CONF:1129-30426).
- 8. **SHALL** contain exactly one [1..1] **component** (CONF:1129-22094) such that it
  - a. **SHALL** contain exactly one [1..1] Sterile Barriers Applied Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.167) (CONF:1129-23059).

**Figure 65: Central-Line Insertion Preparation Organizer (V2) Example**

```
<organizer moodCode="EVN" classCode="CLUSTER">
  <templateId root="2.16.840.1.113883.10.20.5.6.179"
    extension="2014-12-01"/>
  <id nullFlavor="NA"/>
  <statusCode code="completed"/>
  <component>
    <procedure moodCode="EVN" classCode="PROC" negationInd="false">
      <!-- Hand hygiene performed -->
      <!-- C-CDA Procedure Activity Procedure templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
      <!-- HAI Hand Hygiene Performed Clinical Statement templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.130"/>
      ...
    </procedure>
  </component>
  <component>
    <organizer moodCode="EVN" classCode="CLUSTER">
      <!-- Skin Preparation Solutions Applied Organizer (V2) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.183"
        extension="2014-12-01"/>
      ...
    </organizer>
  </component>
  <component>
    <procedure moodCode="EVN" classCode="PROC" negationInd="false">
      <!-- Sterile Barriers Applied Clinical Statement -->
      <!-- C-CDA Procedure Activity Procedure templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
      <!-- HAI Sterile Barriers Applied Clinical Statement templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.167"/>
      ...
    </procedure>
  </component>
</organizer>
```

### 3.23 Closure Technique Procedure

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.117 (closed)]

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**Table 199: Closure Technique Procedure Contexts**

Contained By:	Contains:
<a href="#">Procedure Details Clinical Statement in a Procedure Report (V2)</a> (required)	

This procedure identifies the closure technique used in surgical procedures.

**Table 200: Closure Technique Procedure Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.117)					
@classCode	1..1	SHALL		<a href="#">86-21028</a>	PROC
@moodCode	1..1	SHALL		<a href="#">86-21029</a>	EVN
templateId	1..1	SHALL		<a href="#">86-28219</a>	
@root	1..1	SHALL		<a href="#">86-28220</a>	2.16.840.1.113883.10.20.22.4.14
templateId	1..1	SHALL		<a href="#">86-21038</a>	
@root	1..1	SHALL		<a href="#">86-21039</a>	2.16.840.1.113883.10.20.5.6.117
id	1..1	SHALL		<a href="#">86-21040</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22734</a>	NA
code	1..1	SHALL		<a href="#">86-21032</a>	
@code	1..1	SHALL		<a href="#">86-21033</a>	112695004
@codeSystem	1..1	SHALL		<a href="#">86-28352</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">86-21034</a>	
@code	1..1	SHALL		<a href="#">86-21035</a>	completed
methodCode	1..1	SHALL		<a href="#">86-21036</a>	urn:oid:2.16.840.1.114222.4.11.6051 (NHSNClosureTechniqueCode)

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. **SHALL** contain exactly one [1..1] **@classCode**="PROC" (CONF:86-21028).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:86-21029).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28219) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.14" (CONF:86-28220).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-21038) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.117" (CONF:86-21039).
6. **SHALL** contain exactly one [1..1] **id** (CONF:86-21040).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22734).
7. **SHALL** contain exactly one [1..1] **code** (CONF:86-21032).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="112695004" Surgical Closure (CONF:86-21033).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28352).



8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-21034).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code="completed"** (CONF:86-21035).
9. **SHALL** contain exactly one [1..1] **methodCode**, which **SHALL** be selected from ValueSet [NHSClosureTechniqueCode](#) urn:oid:2.16.840.1.114222.4.11.6051 **DYNAMIC** (CONF:86-21036).

**Table 201: NHSClosureTechniqueCode**

Value Set: NHSClosureTechniqueCode urn:oid:2.16.840.1.114222.4.11.6051 (Clinical Focus: NHSN surveillance reporting: Used to distinguish between primary and non-primary surgical closure techniques),(Data Element Scope: A method code identifying the closure technique used in surgical procedures.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6051/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6051/expansion</a>			
Code	Code System	Code System OID	Print Name
2406-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Primary
2407-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Other than primary

**Figure 66: Closure Technique Procedure Example**

```

<!-- Closure Technique Procedure -->
<procedure classCode="PROC" moodCode="EVN">
  <!-- C-CDA Procedure Activity Procedure templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.14" />
  <!-- HAI Closure Technique Procedure templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.117" />
  <id nullFlavor="NA" />
  <code code="112695004"
        displayName="Surgical Closure"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED CT" />
  <statusCode code="completed" />
  <methodCode code="2406-7"
               displayName="Primary"
               codeSystem="2.16.840.1.113883.6.277"
               codeSystemName="cdcNHSN" />
</procedure>

```

### 3.24 Contraindicated Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.118:2014-12-01 (closed)]

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**Table 202: Contraindicated Observation (V2) Contexts**

Contained By:	Contains:
<a href="#">Skin Preparation Clinical Statement (V2)</a> (optional)	<a href="#">Contraindication Type Observation</a> (optional)

This observation records whether the target statement was contraindicated. If the target statement was contraindicated, set the value of @negationInd to false. If the target statement was not contraindicated (i.e., ok to proceed with the treatment specified by the target statement), set the value of @negationInd to true. If it is not known whether the target statement was contraindicated, set the value of @nullFlavor to "UNK". If the skin preparation choice was not chlorhexidine and there was a contraindication to chlorhexidine, then the contraindication type is required.

**Table 203: Contraindicated Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.118:2014-12-01)					
@nullFlavor	0..1	SHOULD		<a href="#">1129-21778</a>	
@classCode	1..1	SHALL		<a href="#">1129-21780</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1129-21781</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..1	SHOULD		<a href="#">1129-21782</a>	
templateId	1..1	SHALL		<a href="#">1129-30519</a>	
@root	1..1	SHALL		<a href="#">1129-30520</a>	2.16.840.1.113883.10.20.22.4.19
templateId	1..1	SHALL		<a href="#">1129-21785</a>	
@root	1..1	SHALL		<a href="#">1129-28109</a>	2.16.840.1.113883.10.20.5.6.118
@extension	1..1	SHALL		<a href="#">1129-30521</a>	2014-12-01
id	1..1	SHALL		<a href="#">1129-21786</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-21793</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA
code	1..1	SHALL		<a href="#">1129-21787</a>	
@code	1..1	SHALL		<a href="#">1129-21788</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1129-30604</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1129-21789</a>	
@code	1..1	SHALL		<a href="#">1129-21790</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">1129-21791</a>	
@code	1..1	SHALL		<a href="#">1129-21792</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 410536001
entryRelationship	0..*	MAY		<a href="#">1129-28106</a>	
@typeCode	1..1	SHALL		<a href="#">1129-28107</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1129-</a>	<a href="#">Contraindication Type</a>

XPath	Card.	Verb	Data Type	CONF#	Value
				<a href="#">30427</a>	<a href="#">Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.216:2014-12-01)</a>

1. Conforms to Indication template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.19).
2. **SHOULD** contain zero or one [0..1] **@nullFlavor** (CONF:1129-21778).
  - a. If it is not known whether the target statement was contraindicated, the value of **@nullFlavor** **SHALL** be UNK. If the value of **@nullFlavor** is set to UNK then the value of **@negationInd** **SHALL NOT** be set (CONF:1129-21779).
3. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1129-21780).
4. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1129-21781).
5. **SHOULD** contain zero or one [0..1] **@negationInd** (CONF:1129-21782).
  - a. If the target statement was contraindicated, the value of **@negationInd** **SHALL** be false. If the target statement was not contraindicated (i.e., ok to proceed with the treatment specified by the target statement), the value of **@negationInd** **SHALL** be true. If the value of **@negationInd** is set then the value of **@nullFlavor** **SHALL NOT** be set (CONF:1129-21783).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-30519) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.19"** (CONF:1129-30520).
7. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-21785) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.5.6.118"** (CONF:1129-28109).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-12-01"** (CONF:1129-30521).
8. **SHALL** contain exactly one [1..1] **id** (CONF:1129-21786).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor="NA"** (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1129-21793).
9. **SHALL** contain exactly one [1..1] **code** (CONF:1129-21787).
  - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** Assertion (CONF:1129-21788).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1129-30604).
10. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1129-21789).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1129-21790).
11. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:1129-21791).

- a. This value **SHALL** contain exactly one [1..1] @code="410536001" Contraindicated (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:1129-21792).

If the skin preparation choice was not chlorhexidine and there was a contraindication to chlorhexidine, the following entryRelationship is required.

12. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1129-28106) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="RSON" Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1129-28107).
- b. **SHALL** contain exactly one [1..1] [Contraindication Type Observation](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.216:2014-12-01) (CONF:1129-30427).

**Figure 67: Contraindicated Observation (V2) Example - Contraindicated**

```
<!-- It is true (not negated) that the target statement was contraindicated -->
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Indication templateId-->
  <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
  <!-- HAI Contraindicated Observation (V2) templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.118"
    extension="2014-12-01"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="410536001"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT" displayName="Contraindicated"/>
  <entryRelationship typeCode="RSON">
    <!-- Contraindication Type Observation -->
    <observation moodCode="EVN" classCode="OBS">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- Contraindication Type Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.216"
        extension="2014-12-01"/>
      ...
    </observation>
  </entryRelationship>
</observation>
```

**Figure 68: Contraindicated Observation (V2) Example - Not contraindicated**

```
<!-- It is false (negated) that the target statement was contraindicated -->
<observation classCode="OBS" moodCode="EVN" negationInd="true">
  <!-- C-CDA Indication templateId-->
  <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
  <!-- HAI Contraindicated Observation (V2) templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.118"
    extension="2014-12-01" />
  <id nullFlavor="NA" />
  <code codeSystem="2.16.840.1.113883.5.4"
    code="ASSERTION"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    code="410536001"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED"
    displayName="Contraindicated"/>
</observation>
```

### 3.25 Contraindication Type Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.216:2014-12-01  
(closed)]

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**Table 204: Contraindication Type Observation Contexts**

Contained By:	Contains:
<a href="#">Contraindicated Observation (V2)</a> (optional)	

This template represents the type of contraindication.

**Table 205: Contraindication Type Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.216:2014-12-01)					
@classCode	1..1	SHALL		<a href="#">1129-5</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1129-6</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1129-30522</a>	
@root	1..1	SHALL		<a href="#">1129-30523</a>	2.16.840.1.113883.10.20.5.6.216
@extension	1..1	SHALL		<a href="#">1129-30524</a>	2014-12-01
code	1..1	SHALL		<a href="#">1129-2</a>	
@code	1..1	SHALL		<a href="#">1129-8</a>	6130-9
@codeSystem	1..1	SHALL		<a href="#">1129-9</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
statusCode	1..1	SHALL		<a href="#">1129-4</a>	
@code	1..1	SHALL		<a href="#">1129-12</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">1129-10</a>	urn:oid:2.16.840.1.114222.4.11.7239 (NHSNContraindicationType)

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1129-5).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1129-6).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-30522) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.5.6.216"** (CONF:1129-30523).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-12-01"** (CONF:1129-30524).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1129-2).
  - a. This code **SHALL** contain exactly one [1..1] **@code="6130-9"** Contraindication type (CONF:1129-8).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.277"** (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277 **STATIC**) (CONF:1129-9).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1129-4).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1129-12).

6. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHALL** be selected from ValueSet [NHSNContraindicationType](#)  
urn:oid:2.16.840.1.114222.4.11.7239 **DYNAMIC** (CONF:1129-10).

**Table 206: NHSNContraindicationType**

Value Set: NHSNContraindicationType urn:oid:2.16.840.1.114222.4.11.7239 (Clinical Focus: NHSN surveillance reporting: Contraindication for using chlorhexidine gluconate (CHG) for Central Line Insertion Practices (CLIP) adherence monitoring),(Data Element Scope: A coded observation value representing the type of contraindication.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7239/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7239/expansion</a>			
Code	Code System	Code System OID	Print Name
6131-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Patient is less than 2 months of age - chlorhexidine gluconate is to be used with caution in patients less than 2 months of age
6132-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Patient has a documented/known allergy/reaction to chlorhexidine gluconate-based products that would preclude its use
6133-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Facility restrictions or safety concerns for chlorhexidine gluconate use in premature infants precludes its use

**Figure 69: Contraindication Type Observation Example**

<pre> &lt;observation moodCode="EVN" classCode="OBS"&gt;   &lt;!-- Contraindication Type Observation templateId --&gt;   &lt;templateId root="2.16.840.1.113883.10.20.5.6.216"     extension="2014-12-01" /&gt;   &lt;code code="6130-9"     displayName="Contraindication type"     codeSystem="2.16.840.1.113883.6.277"     codeSystemName="cdcNHSN"/&gt;   &lt;statusCode code="completed"/&gt;   &lt;value xsi:type="CD"     code="6133-3"     codeSystem="2.16.840.1.113883.6.277"     codeSystemName="cdcNHSN"     displayName="Facility restrictions or safety concerns for CHG use in       premature infants precludes its use"/&gt; &lt;/observation&gt; </pre>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



## 3.26 Criteria of Diagnosis Organizer

[organizer: identifier urn:oid:2.16.840.1.113883.10.20.5.6.180 (closed)]

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**Table 207: Criteria of Diagnosis Organizer Contexts**

Contained By:	Contains:
<a href="#">Infection-Type Observation</a> (required) <a href="#">Details Section in an Evidence of Infection (Dialysis) Report (V6)</a> (required) <a href="#">Infection-Type Observation in an OPC SSI Event</a> (required)	<a href="#">Criterion of Diagnosis Observation</a> (required)

This organizer groups together the criteria used in the diagnosis of an infection or the identification of an adverse reaction. Each criterion is recorded as a Criterion of Diagnosis Observation.

The Criteria of Diagnosis Organizer is used in several report types. The NHSN protocol specifies which criteria are to be recorded for each report type. Those rules do not form part of this template. The NHSN submission requirement is that, in a given report type, a Criterion of Diagnosis Observation must be present for every datum required by the NHSN protocol for that report type, with an appropriate value for @negationInd.

In an Evidence of Infection (Dialysis) Report, to record that none of the criteria of diagnosis was present, set the value of the observation/@negationInd to true for each criterion required in this report.

**Table 208: Criteria of Diagnosis Organizer Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
organizer (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.180)					
@classCode	1..1	SHALL		<a href="#">86-22101</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">86-22102</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-22103</a>	
@root	1..1	SHALL		<a href="#">86-22104</a>	2.16.840.1.113883.10.20.5.6.180
statusCode	1..1	SHALL		<a href="#">86-22106</a>	
@code	1..1	SHALL		<a href="#">86-23061</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
component	1..*	SHALL		<a href="#">86-22107</a>	
observation	1..1	SHALL		<a href="#">86-23062</a>	<a href="#">Criterion of Diagnosis Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.119)</a>

1. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" Cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-22101).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-22102).
3. **SHALL** contain exactly one [1..1] templateId (CONF:86-22103) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.180" (CONF:86-22104).
4. **SHALL** contain exactly one [1..1] statusCode (CONF:86-22106).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-23061).
5. **SHALL** contain at least one [1..\*] component (CONF:86-22107).
  - a. Such components **SHALL** contain exactly one [1..1] [Criterion of Diagnosis Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.119) (CONF:86-23062).

**Figure 70: Criteria of Diagnosis Organizer Example**

```
<organizer classCode="CLUSTER" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.5.6.180"/>
  <statusCode code="completed"/>
  <component>
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Indication templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
      <!-- HAI Criteria of Diagnosis Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.119"/>
      ...
    </observation>
  </component>
  ...
</organizer>
```

### 3.27 Criterion of Diagnosis Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.119 (closed)]

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**Table 209: Criterion of Diagnosis Observation Contexts**

Contained By:	Contains:
<a href="#">Criteria of Diagnosis Organizer</a> (required)	

This observation records a criterion used in the diagnosis of the infection type or the identification of an adverse reaction. It appears within the Criterion of Diagnosis Organizer. In infection-type reports it is used with the Criterion of Diagnosis vocabulary.

If the criterion was present, set the value of @negationInd to false. If the criterion was not present, set the value of @negationInd to true.

The NHSN protocol specifies which Criterion of Diagnosis Observations must appear in each report type for which they are required. Those rules do not form part of this template.

**Table 210: Criterion of Diagnosis Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.119)					
@classCode	1..1	SHALL		<a href="#">86-22126</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-22127</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-22128</a>	
templateId	1..1	SHALL		<a href="#">86-28221</a>	
@root	1..1	SHALL		<a href="#">86-28222</a>	2.16.840.1.113883.10.20.22.4.19
templateId	1..1	SHALL		<a href="#">86-22129</a>	
@root	1..1	SHALL		<a href="#">86-22140</a>	2.16.840.1.113883.10.20.5.6.119
id	1..1	SHALL		<a href="#">86-22130</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22736</a>	NA
code	1..1	SHALL		<a href="#">86-22131</a>	
@code	1..1	SHALL		<a href="#">86-22132</a>	ASSERTION
@codeSystem	0..1	MAY		<a href="#">86-28373</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-22133</a>	
@code	1..1	SHALL		<a href="#">86-22134</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL		<a href="#">86-22135</a>	

1. Conforms to Indication template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.19).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-22126).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-22127).
4. **SHALL** contain exactly one [1..1] @negationInd (CONF:86-22128).
5. **SHALL** contain exactly one [1..1] templateId (CONF:86-28221) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.19" (CONF:86-28222).
6. **SHALL** contain exactly one [1..1] templateId (CONF:86-22129) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.119" (CONF:86-22140).
- 7. **SHALL** contain exactly one [1..1] **id** (CONF:86-22130).
  - a. This **id** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22736).
- 8. **SHALL** contain exactly one [1..1] **code** (CONF:86-22131).
  - a. This **code** **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:86-22132).
  - b. This **code** **MAY** contain zero or one [0..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28373).
- 9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-22133).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-22134).
- 10. **SHALL** contain exactly one [1..1] **value** (CONF:86-22135).
  - a. In an infection-type report, a criterion is reported as a code. The value of **@xsi:type** **SHALL** be CD and the value of **@code** **SHALL** be selected from Value Set 2.16.840.1.114222.4.11.3195 NHSNCriterionOfDiagnosisCode **DYNAMIC** (CONF:86-22136).
  - b. In an Evidence of Infection (Dialysis) Report, (CONF:86-22137).
    - i. To record a criterion of diagnosis as a code, the value of **@xsi:type** **SHALL** be CD and the value of **@code** **SHALL** be selected from Value Set 2.16.840.1.114222.4.11.3195 NHSNCriterionOfDiagnosisCode **DYNAMIC** (CONF:86-22138).
    - ii. To record a criterion not included in the NHSNCriterionOfDiagnosisCode value set, the value of **@xsi:type** **SHALL** be ST and a text value **SHALL** be present (CONF:86-22139).

**Table 211: NHSNCriterionOfDiagnosisCode**

Value Set: NHSNCriterionOfDiagnosisCode urn:oid:2.16.840.1.114222.4.11.3195 (Clinical Focus: NHSN surveillance reporting: Criteria used to diagnose an infection type or identify an adverse reaction),(Data Element Scope: A coded observation value that records a criterion used in the diagnosis of the infection type or the identification of an adverse reaction.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3195/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3195/expansion</a>			
Code	Code System	Code System OID	Print Name
1023001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Apnea (finding)
102830001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Renal angle tenderness (finding)
123767004	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Hemoglobinemia (disorder)
126485001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Urticaria (disorder)
12763006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Finding of decreased blood pressure (finding)
128045006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Cellulitis (disorder)
128477000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Abscess (disorder)
128601007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Infectious disease of lung (disorder)
161891005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Backache (finding)
162053006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Suprapubic pain (finding)
...			

**Figure 71: Criterion of Diagnosis Observation Examples**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Indication templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
  <!-- HAI Criteria of Diagnosis Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.119"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED"
    code="255320000"
    displayName="Purulent drainage"/>
</observation>
<observation classCode="OBS" moodCode="EVN" negationInd="true">
  <!-- C-CDA Indication templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
  <!-- HAI Criteria of Diagnosis Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.119"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED"
    code="386661006"
    displayName="Fever"/>
  <!-- In the EOID Report, if there is no applicable
    coded value, a text string can be used:
  <value xsi:type="ST">An itchy sensation</value>
  -->
</observation>
```

### 3.28 Death Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.120 (closed)]

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**Table 212: Death Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Details Section in a BSI Report</a> (optional) <a href="#">Infection Details Section in a UTI Report</a> (optional) <a href="#">Infection Details Section in an SSI Report (V2)</a> (optional) <a href="#">Infection Details Section in a VAE Report</a> (required) <a href="#">Infection Details in Late Onset Sepsis Report</a> (required)	<a href="#">Infection Contributed to Death Observation</a> (optional)

This observation records whether the patient died and, if so, whether the infection being recorded contributed to that death.

If the patient died, set the value of @negationInd to false. If the patient did not die, set the value of @negationInd to true.

If the patient died, the Death Observation must also indicate whether the infection contributed to the death using an entryRelationship element containing an Infection Contributed to Death Observation. An inversionInd attribute on this entryRelationship element indicates that it should be interpreted as if the roles of the source and target entries were reversed. Thus, the observation reports whether the infection “supported” (contributed to) the death. The CAUS value does not have the force of “cause of death” on a death certificate; it indicates that the infection is causal or contributory to the death.

**Table 213: Death Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120)					
@classCode	1..1	SHALL		<a href="#">86-19611</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-19612</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-19613</a>	
templateId	1..1	SHALL		<a href="#">86-28223</a>	
@root	1..1	SHALL		<a href="#">86-28224</a>	2.16.840.1.113883.10.20.22.4.79
templateId	1..1	SHALL		<a href="#">86-19623</a>	
@root	1..1	SHALL		<a href="#">86-19624</a>	2.16.840.1.113883.10.20.5.6.120
id	1..1	SHALL		<a href="#">86-19625</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22739</a>	NA
code	1..1	SHALL		<a href="#">86-19614</a>	
@code	1..1	SHALL		<a href="#">86-19615</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28374</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-19616</a>	
@code	1..1	SHALL		<a href="#">86-19617</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">86-19626</a>	
low	1..1	SHALL		<a href="#">86-19627</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22740</a>	NA
value	1..1	SHALL	CD	<a href="#">86-19618</a>	
@code	1..1	SHALL		<a href="#">86-19619</a>	419099009
@codeSystem	1..1	SHALL		<a href="#">86-28353</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
entryRelationship	0..1	MAY		<a href="#">86-23063</a>	
@typeCode	1..1	SHALL		<a href="#">86-23064</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = CAUS
@inversionInd	1..1	SHALL		<a href="#">86-23065</a>	true
@negationInd	1..1	SHALL		<a href="#">86-23066</a>	
observation	1..1	SHALL		<a href="#">86-23068</a>	<a href="#">Infection Contributed to Death Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.136)</a>



1. Conforms to Deceased Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.79).
2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-19611).
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-19612).
4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:86-19613).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28223) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.79"** (CONF:86-28224).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-19623) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.5.6.120"** (CONF:86-19624).
7. **SHALL** contain exactly one [1..1] **id** (CONF:86-19625).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor="NA"** (CONF:86-22739).
8. **SHALL** contain exactly one [1..1] **code** (CONF:86-19614).
  - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** Assertion (CONF:86-19615).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28374).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-19616).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-19617).
10. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:86-19626).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:86-19627).
    - i. This low **SHALL** contain exactly one [1..1] **@nullFlavor="NA"** (CONF:86-22740).
11. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:86-19618).
  - a. This value **SHALL** contain exactly one [1..1] **@code="419099009"** Dead (CONF:86-19619).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.96"** (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28353).
12. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:86-23063).
  - a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@typeCode="CAUS"** is etiology for (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:86-23064).
  - b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:86-23065).
  - c. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@negationInd** (CONF:86-23066).

- i. If the infection contributed to death, set the value of @negationInd to false. If the infection did not contribute to the death, set the value of @negationInd to true (CONF:86-23067).
- d. The entryRelationship, if present, **SHALL** contain exactly one [1..1] [Infection Contributed to Death Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.136) (CONF:86-23068).
- e. If the patient died, an entryRelationship element **SHALL** be present and **SHALL** contain an Infection Contributed to Death Observation (CONF:86-23069).

**Figure 72: Death Observation Example**

```
<!-- "Dead" is not negated = patient died -->
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Deceased Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.79"/>
  <!-- HAI Death Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.120"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.5.4"
        code="ASSERTION"/>
  <statusCode code="completed"/>
  <effectiveTime>
    <low nullFlavor="NA"/>
  </effectiveTime>
  <value xsi:type="CD"
        code="419099009"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED"
        displayName="Dead"/>
  <!-- The infection did contribute to the death (causality is not negated) -->
  <entryRelationship typeCode="CAUS" inversionInd="true" negationInd="false">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Infection Contributed to Death Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.136"/>
      ...
    </observation>
  </entryRelationship>
</observation>
```

### 3.29 Death Observation in an Evidence of Infection (Dialysis) Report

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.121 (closed)]

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**Table 214: Death Observation in an Evidence of Infection (Dialysis) Report Contexts**

Contained By:	Contains:
<a href="#">Details Section in an Evidence of Infection (Dialysis) Report (V6)</a> (required)	

This observation records whether the outpatient died subsequent to the observation of an infection indicator.

When the patient died, set the value of @negationInd to false. When the patient did not die, set the value of @negationInd to true. When it is unknown whether the patient died, set the value of @nullFlavor to NI.

**Table 215: Death Observation in an Evidence of Infection (Dialysis) Report Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.121)					
@nullFlavor	0..1	MAY		<a href="#">86-19644</a>	
@classCode	1..1	SHALL		<a href="#">86-19628</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-19629</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..1	MAY		<a href="#">86-19645</a>	
templateId	1..1	SHALL		<a href="#">86-28225</a>	
@root	1..1	SHALL		<a href="#">86-28226</a>	2.16.840.1.113883.10.20.22.4.79
templateId	1..1	SHALL		<a href="#">86-19639</a>	
@root	1..1	SHALL		<a href="#">86-19640</a>	2.16.840.1.113883.10.20.5.6.121
id	1..1	SHALL		<a href="#">86-19641</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22742</a>	NA
code	1..1	SHALL		<a href="#">86-19630</a>	
@code	1..1	SHALL		<a href="#">86-19631</a>	ASSERTION
@codeSystem	0..1	MAY		<a href="#">86-28375</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-19632</a>	
@code	1..1	SHALL		<a href="#">86-19633</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">86-19642</a>	
low	1..1	SHALL		<a href="#">86-19643</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22743</a>	NA
value	1..1	SHALL	CD	<a href="#">86-19634</a>	
@code	1..1	SHALL		<a href="#">86-19635</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 419099009

1. Conforms to Deceased Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.79).
2. **MAY** contain zero or one [0..1] @nullFlavor (CONF:86-19644).
  - a. If @negationInd is present then @nullFlavor **SHALL NOT** contain a value (CONF:86-19646).

3. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-19628).
4. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-19629).
5. **MAY** contain zero or one [0..1] **@negationInd** (CONF:86-19645).
  - a. If **@nullFlavor** is present then **@negationInd** **SHALL NOT** contain a value (CONF:86-19647).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28225) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.79" (CONF:86-28226).
7. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-19639) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.121" (CONF:86-19640).
8. **SHALL** contain exactly one [1..1] **id** (CONF:86-19641).
  - a. This **id** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22742).
9. **SHALL** contain exactly one [1..1] **code** (CONF:86-19630).
  - a. This **code** **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:86-19631).
  - b. This **code** **MAY** contain zero or one [0..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28375).
10. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-19632).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-19633).
11. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:86-19642).
  - a. This **effectiveTime** **SHALL** contain exactly one [1..1] **low** (CONF:86-19643).
    - i. This **low** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22743).
12. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:86-19634).
  - a. This **value** **SHALL** contain exactly one [1..1] **@code**="419099009" Dead (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:86-19635).
13. **SHALL** contain either **@nullFlavor** or **@negationInd**, but **SHALL NOT** contain both (CONF:86-19648).

**Figure 73: Death Observation in an EOID Report Example**

```
<!-- There is no information about whether the patient has died -->
<observation classCode="OBS" moodCode="EVN" nullFlavor="NI">
  <!-- C-CDA Deceased Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.79"/>
  <!-- HAI Death Observation in an Evidence of Infection (Dialysis) Report -->
  <templateId root="2.16.840.1.113883.10.20.5.6.121"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.5.4"
        code="ASSERTION"/>
  <statusCode code="completed"/>
  <effectiveTime>
    <low nullFlavor="NA"/>
  </effectiveTime>
  <value xsi:type="CD"
        code="419099009"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED"
        displayName="Dead"/>
</observation>
```

### 3.30 Device Insertion Time and Location Procedure

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.122 (closed)]

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**Table 216: Device Insertion Time and Location Procedure Contexts**

Contained By:	Contains:
<a href="#">Infection Risk Factors Observation</a> (optional)	
<a href="#">Urinary Catheter Observation</a> (optional)	

This clinical statement records the location of the patient and the time when the device was inserted.

**Table 217: Device Insertion Time and Location Procedure Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.122)					
@classCode	1..1	SHALL		<a href="#">86-21041</a>	PROC
@moodCode	1..1	SHALL		<a href="#">86-21042</a>	EVN
templateId	1..1	SHALL		<a href="#">86-28227</a>	
@root	1..1	SHALL		<a href="#">86-28228</a>	2.16.840.1.113883.10.20.22.4.14
templateId	1..1	SHALL		<a href="#">86-21063</a>	
@root	1..1	SHALL		<a href="#">86-21064</a>	2.16.840.1.113883.10.20.5.6.122
id	1..1	SHALL		<a href="#">86-21065</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22744</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA
code	1..1	SHALL		<a href="#">86-21044</a>	
@code	1..1	SHALL		<a href="#">86-21066</a>	71861002
@codeSystem	1..1	SHALL		<a href="#">86-28103</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">86-21046</a>	
@code	1..1	SHALL		<a href="#">86-28106</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">86-21047</a>	
low	1..1	SHALL		<a href="#">86-21048</a>	
participant	0..*	MAY		<a href="#">86-21049</a>	
@typeCode	1..1	SHALL		<a href="#">86-21050</a>	LOC
participantRole	1..1	SHALL		<a href="#">86-21051</a>	
@classCode	1..1	SHALL		<a href="#">86-21052</a>	SDLOC
id	1..1	SHALL		<a href="#">86-21053</a>	
@root	1..1	SHALL		<a href="#">86-21054</a>	
@extension	1..1	SHALL		<a href="#">86-21056</a>	
playingEntity	1..1	SHALL		<a href="#">86-21057</a>	
@classCode	1..1	SHALL		<a href="#">86-21058</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PLC
code	1..1	SHALL		<a href="#">86-21059</a>	urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode)

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. **SHALL** contain exactly one [1..1] **@classCode**="PROC" (CONF:86-21041).

3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:86-21042).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28227) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.14" (CONF:86-28228).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-21063) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.122" (CONF:86-21064).
6. **SHALL** contain exactly one [1..1] **id** (CONF:86-21065).
  - a. This **id** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:86-22744).
7. **SHALL** contain exactly one [1..1] **code** (CONF:86-21044).
  - a. This **code** **SHALL** contain exactly one [1..1] **@code**="71861002" Insertion procedure (CONF:86-21066).
  - b. This **code** **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28103).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-21046).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-28106).
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:86-21047).
  - a. This **effectiveTime** **SHALL** contain exactly one [1..1] **low** (CONF:86-21048).
10. **MAY** contain zero or more [0..\*] **participant** (CONF:86-21049).
  - a. The **participant**, if present, **SHALL** contain exactly one [1..1] **@typeCode**="LOC" (CONF:86-21050).
  - b. The **participant**, if present, **SHALL** contain exactly one [1..1] **participantRole** (CONF:86-21051).
    - i. This **participantRole** **SHALL** contain exactly one [1..1] **@classCode**="SDLOC" (CONF:86-21052).
    - ii. This **participantRole** **SHALL** contain exactly one [1..1] **id** (CONF:86-21053).
      1. This **id** **SHALL** contain exactly one [1..1] **@root** (CONF:86-21054).
        - a. This **id/@root** **SHALL** contain the facility identifier (CONF:86-21055).
      2. This **id** **SHALL** contain exactly one [1..1] **@extension** (CONF:86-21056).
    - iii. This **participantRole** **SHALL** contain exactly one [1..1] **playingEntity** (CONF:86-21057).
      1. This **playingEntity** **SHALL** contain exactly one [1..1] **@classCode**="PLC" (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:86-21058).
      2. This **playingEntity** **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNHealthcareServiceLocationCode](#) urn:oid:2.16.840.1.113883.13.19 **DYNAMIC** (CONF:86-21059).

Figure 74: Device Insertion Time and Location Procedure Example

```
<!-- Device Insertion Time and Location Procedure -->
<procedure classCode="PROC" moodCode="EVN">
  <!-- C-CDA Procedure Activity Procedure templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.14" />
  <!-- HAI Device Insertion Time and Location Procedure templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.122" />
  <id nullFlavor="NA" />
  <code code="71861002"
        displayName="Insertion procedure"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED CT" />
  <statusCode code="completed" />
  <effectiveTime>
    <low value="20120808" />
  </effectiveTime>
  <participant typeCode="LOC">
    <participantRole classCode="SDLOC">
      <!-- root = facility assigned OID; extension = NHSN location ("your code") -->
      <id root="2.16.840.1.114222.4.3.2.11" extension="123456" />
      <playingEntity classCode="PLC">
        <code codeSystem="2.16.840.1.113883.6.259"
              codeSystemName="HL7 HealthcareServiceLocation"
              code="1029-8"
              displayName="Medical/Surgical Critical Care" />
      </playingEntity>
    </participantRole>
  </participant>
</procedure>
```

3.31 Diabetes Mellitus Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.123 (closed)]

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Table 218: Diabetes Mellitus Observation Contexts

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a Procedure Report</a> (required)	
<a href="#">Infection Risk Factors Section in an OPC Denominator for Procedure</a> (required)	

This observation records whether the person had diabetes mellitus.

If the person did have diabetes, set the value of @negationInd to false. If the person did not have diabetes mellitus, set the value of @negationInd to true.



**Table 219: Diabetes Mellitus Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.123)					
@classCode	1..1	SHALL		<a href="#">86-21000</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-21001</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-21002</a>	
templateId	1..1	SHALL		<a href="#">86-28229</a>	
@root	1..1	SHALL		<a href="#">86-28230</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-21005</a>	
@root	1..1	SHALL		<a href="#">86-21006</a>	2.16.840.1.113883.10.20.5.6.123
id	1..1	SHALL		<a href="#">86-21007</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22745</a>	NA
code	1..1	SHALL		<a href="#">86-21008</a>	
@code	1..1	SHALL		<a href="#">86-21009</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28376</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-21010</a>	
@code	1..1	SHALL		<a href="#">86-21011</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-21012</a>	
@code	1..1	SHALL	CS	<a href="#">86-21013</a>	73211009
@codeSystem	1..1	SHALL		<a href="#">86-28354</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21000).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21001).

If the person did have diabetes, set the value of @negationInd to false. If the person did not have diabetes mellitus, set the value of @negationInd to true.

4. **SHALL** contain exactly one [1..1] @negationInd (CONF:86-21002).
5. **SHALL** contain exactly one [1..1] templateId (CONF:86-28229) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28230).

6. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-21005) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.123" (CONF:86-21006).
7. **SHALL** contain exactly one [1..1] **id** (CONF:86-21007).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22745).
8. **SHALL** contain exactly one [1..1] **code** (CONF:86-21008).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:86-21009).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28376).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-21010).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-21011).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:86-21012).
  - a. This value **SHALL** contain exactly one [1..1] **@code**="73211009" Diabetes mellitus (CONF:86-21013).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28354).

**Figure 75: Diabetes Mellitus Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Diabetes Mellitus Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.123"/>
  <id nullFlavor="NA"/>
  <code code="ASSERTION"
    codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    code="73211009"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED"
    displayName="Diabetes mellitus"/>
</observation>
```

### 3.32 Dialysis Clinic Admission Clinical Statement

[encounter: identifier urn:oid:2.16.840.1.113883.10.20.5.6.124 (closed)]

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**Table 220: Dialysis Clinic Admission Clinical Statement Contexts**

Contained By:	Contains:
<a href="#">Details Section in an Evidence of Infection (Dialysis) Report (V6)</a> (required)	

This statement records whether the patient was (re)admitted to the dialysis facility on the same day as, or after, the dialysis event. The infection (dialysis event) observation is specified in the entryRelationship/observation/value element.

If the infection (dialysis event) began on or after the date the patient was admitted, set the value of entryRelationship/@inversionInd to true. If the infection (dialysis event) began before the date the patient was admitted, set the value of entryRelationship/@inversionInd to false.

**Table 221: Dialysis Clinic Admission Clinical Statement Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
encounter (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.124)					
@classCode	1..1	SHALL		<a href="#">86-23263</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">86-23264</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-23265</a>	
@root	1..1	SHALL		<a href="#">86-23266</a>	2.16.840.1.113883.10.20.5.6.124
id	1..1	SHALL		<a href="#">86-23267</a>	
entryRelationship	1..1	SHALL		<a href="#">86-23269</a>	
@typeCode	1..1	SHALL		<a href="#">86-23272</a>	SAS
@inversionInd	1..1	SHALL		<a href="#">86-23273</a>	
observation	1..1	SHALL		<a href="#">86-23275</a>	
@classCode	1..1	SHALL		<a href="#">86-23276</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-23277</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
id	1..1	SHALL		<a href="#">86-23278</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-27747</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA
code	1..1	SHALL		<a href="#">86-23280</a>	
@code	1..1	SHALL		<a href="#">86-23281</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-23282</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-23283</a>	
@code	1..1	SHALL		<a href="#">86-23284</a>	completed
value	1..1	SHALL	CD	<a href="#">86-23285</a>	
@code	1..1	SHALL		<a href="#">86-27748</a>	40733004
@codeSystem	1..1	SHALL		<a href="#">86-27749</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96

1. **SHALL** contain exactly one [1..1] **@classCode**="ENC" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-23263).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-23264).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-23265) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.124" (CONF:86-23266).
4. **SHALL** contain exactly one [1..1] **id** (CONF:86-23267).

- a. This is the id of the encompassing encounter (CONF:86-23268).
- 5. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:86-23269).
  - a. This entryRelationship **SHALL** contain exactly one [1..1] **@typeCode="SAS"** (CONF:86-23272).
  - b. This entryRelationship **SHALL** contain exactly one [1..1] **@inversionInd** (CONF:86-23273).
    - i. If the infection (dialysis event) began on or after the date the patient was admitted, set the value of **@inversionInd** to true. If the infection (dialysis event) began before the date the patient was admitted, set the value of **@inversionInd** to false (CONF:86-23274).
  - c. This entryRelationship **SHALL** contain exactly one [1..1] **observation** (CONF:86-23275).
    - i. This observation **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:86-23276).
    - ii. This observation **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:86-23277).
    - iii. This observation **SHALL** contain exactly one [1..1] **id** (CONF:86-23278).
      - 1. This id **SHALL** contain exactly one [1..1] **@nullFlavor="NA"** (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:86-27747).
    - iv. This observation **SHALL** contain exactly one [1..1] **code** (CONF:86-23280).
      - 1. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** (CONF:86-23281).
      - 2. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-23282).
    - v. This observation **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-23283).
      - 1. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** (CONF:86-23284).
    - vi. This observation **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:86-23285).
      - 1. This value **SHALL** contain exactly one [1..1] **@code="40733004"** Infection (CONF:86-27748).
      - 2. This value **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.96"** (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-27749).

**Figure 76: Dialysis Clinic Admission Clinical Statement Example**

```
<encounter classCode="ENC" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.5.6.124" />
  <!-- the id of the encompassingEncounter -->
  <!-- Facility-generated Event/Procedure number -->
  <id root="2.16.840.1.113883.3.117.1.1.5.2.1.1.3" extension="31" />
  <entryRelationship typeCode="SAS" inversionInd="true">
    <observation classCode="OBS" moodCode="EVN">
      <id nullFlavor="NA"/>
      <code code="ASSERTION"
        codeSystem="2.16.840.1.113883.5.4"/>
      <statusCode code="completed"/>
      <value xsi:type="CD"
        code="40733004"
        codeSystem="2.16.840.1.113883.6.96"
        displayName="Infection" />
    </observation>
  </entryRelationship>
</encounter>
```

### 3.33 Dialysis Patient Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.125 (closed)]

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**Table 222: Dialysis Patient Observation Contexts**

Contained By:	Contains:
<a href="#">Risk Factors Section in an Evidence of Infection (Dialysis) Report (V5)</a> (required)	<a href="#">Transient Patient Observation</a> (required)

This observation records that the patient is a maintenance hemodialysis patient. It is used in the Evidence of Infection (Dialysis) Report.

These reports are submitted for outpatients for whom an infection indicator is observed. The encounter is recorded in the CDA header as being an outpatient encounter

**Table 223: Dialysis Patient Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.125)					
@classCode	1..1	SHALL		<a href="#">86-21747</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-21748</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-21749</a>	false
templateId	1..1	SHALL		<a href="#">86-28231</a>	
@root	1..1	SHALL		<a href="#">86-28232</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-21752</a>	
@root	1..1	SHALL		<a href="#">86-21753</a>	2.16.840.1.113883.10.20.5.6.125
id	1..1	SHALL		<a href="#">86-21754</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22747</a>	NA
code	1..1	SHALL		<a href="#">86-21755</a>	
@code	1..1	SHALL		<a href="#">86-21756</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28377</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-21757</a>	
@code	1..1	SHALL		<a href="#">86-21758</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-21759</a>	
@code	1..1	SHALL		<a href="#">86-21760</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 236435004
entryRelationship	1..1	SHALL		<a href="#">86-21761</a>	
@typeCode	1..1	SHALL		<a href="#">86-21762</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">86-21763</a>	<a href="#">Transient Patient Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.169)</a>

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21747).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21748).
4. **SHALL** contain exactly one [1..1] @negationInd="false" (CONF:86-21749).
5. **SHALL** contain exactly one [1..1] templateId (CONF:86-28231) such that it

- a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.22.4.4"` (CONF:86-28232).
6. **SHALL** contain exactly one [1..1] `templateId` (CONF:86-21752) such that it
  - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.5.6.125"` (CONF:86-21753).
7. **SHALL** contain exactly one [1..1] `id` (CONF:86-21754).
  - a. This `id` **SHALL** contain exactly one [1..1] `@nullFlavor="NA"` (CONF:86-22747).
8. **SHALL** contain exactly one [1..1] `code` (CONF:86-21755).
  - a. This `code` **SHALL** contain exactly one [1..1] `@code="ASSERTION"` Assertion (CONF:86-21756).
  - b. This `code` **SHALL** contain exactly one [1..1] `@codeSystem="2.16.840.1.113883.5.4"` (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28377).
9. **SHALL** contain exactly one [1..1] `statusCode` (CONF:86-21757).
  - a. This `statusCode` **SHALL** contain exactly one [1..1] `@code="completed"` Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-21758).
10. **SHALL** contain exactly one [1..1] `value` with `@xsi:type="CD"` (CONF:86-21759).
  - a. This `value` **SHALL** contain exactly one [1..1] `@code="236435004"` End-stage renal failure, on dialysis (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:86-21760).
11. **SHALL** contain exactly one [1..1] `entryRelationship` (CONF:86-21761) such that it
  - a. **SHALL** contain exactly one [1..1] `@typeCode="COMP"` Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:86-21762).
  - b. **SHALL** contain exactly one [1..1] Transient Patient Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.169) (CONF:86-21763).



**Figure 77: Dialysis Patient Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Dialysis Patient Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.125"/>
  <id nullFlavor="NA"/>
  <code code="ASSERTION"
    codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"
    code="236435004"
    displayName="End-stage renal failure, on dialysis"/>
  <!-- Transient Patient Observation -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- HAI Transient Patient Observation templateId-->
      <templateId root="2.16.840.1.113883.10.20.5.6.169 "/>
      ...
    </observation>
  </entryRelationship>
</observation>
```

### 3.34 Drug-Susceptibility Test Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.126 (closed)]

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**Table 224: Drug-Susceptibility Test Observation Contexts**

Contained By:	Contains:
<a href="#">Findings Organizer</a> (optional)	

This observation uses two codes: one to identify the drug and the other to record the pathogen's susceptibility to it. A LOINC code represents a methodless isolate drug-susceptibility test; an HL7 ObservationInterpretation code represents the susceptibility finding.

**Table 225: Drug-Susceptibility Test Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.126)					
@classCode	1..1	SHALL		<a href="#">86-21014</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-21015</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-28233</a>	
@root	1..1	SHALL		<a href="#">86-28234</a>	2.16.840.1.113883.10.20.22.4.2
templateId	1..1	SHALL		<a href="#">86-21018</a>	
@root	1..1	SHALL		<a href="#">86-21019</a>	2.16.840.1.113883.10.20.5.6.126
id	1..1	SHALL		<a href="#">86-21020</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22748</a>	NA
code	1..1	SHALL		<a href="#">86-21021</a>	urn:oid:2.16.840.1.113883.13.15 (NHSNDrugSusceptibilityTests Code)
statusCode	1..1	SHALL		<a href="#">86-21023</a>	
@code	1..1	SHALL		<a href="#">86-21024</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">86-21025</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22749</a>	NA
value	1..1	SHALL		<a href="#">86-28406</a>	
interpretationCode	1..1	SHALL		<a href="#">86-21026</a>	

1. Conforms to Result Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.2).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21014).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21015).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28233) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.2" (CONF:86-28234).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-21018) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.126" (CONF:86-21019).
6. **SHALL** contain exactly one [1..1] **id** (CONF:86-21020).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22748).

7. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNDrugSusceptibilityTestsCode](#) urn:oid:2.16.840.1.113883.13.15 **DYNAMIC** (CONF:86-21021).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-21023).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-21024).
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:86-21025).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **@nullFlavor="NA"** (CONF:86-22749).
10. **SHALL** contain exactly one [1..1] **value** (CONF:86-28406).
11. **SHALL** contain exactly one [1..1] **interpretationCode** (CONF:86-21026).
  - a. If the interpretation result is known, the value of interpretationCode/@code **SHALL** be selected from Value Set 2.16.840.1.113883.13.13 NHSNDrugSusceptibilityFindingCode **DYNAMIC**. If the drug was not tested, the value of @nullFlavor **SHALL** be NASK (CONF:86-21027).

**Figure 78: Drug-Susceptibility Test Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- C-CDA Result Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.2" />
  <!-- HAI Drug-susceptibility Test Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.126" />
  <id nullFlavor="NA" />
  <code codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        code="19000-9"
        displayName="Vancomycin Susc Islt" />
  <statusCode code="completed" />
  <effectiveTime nullFlavor="NA" />
  <value xsi:type="CD" nullFlavor="NA" />
  <interpretationCode codeSystem="2.16.840.1.113883.5.83"
        codeSystemName="HL7 Observation Interpretation"
        code="S" displayName="susceptible" />
</observation>
```

### 3.35 Duration of Labor Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.127 (closed)]

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**Table 226: Duration of Labor Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a Procedure Report</a> (optional)	

This observation records the duration of labor in value/width. NHSN protocol requires that the duration be expressed as an integer.

**Table 227: Duration of Labor Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.127)					
@classCode	1..1	SHALL		<a href="#">86-22208</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-22209</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-22210</a>	
@root	1..1	SHALL		<a href="#">86-22211</a>	2.16.840.1.113883.10.20.5.6.127
code	1..1	SHALL		<a href="#">86-22212</a>	
@code	1..1	SHALL		<a href="#">86-22213</a>	289248003
@codeSystem	1..1	SHALL		<a href="#">86-28355</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">86-22214</a>	
@code	1..1	SHALL		<a href="#">86-22215</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	IVL_TS	<a href="#">86-22216</a>	
width	1..1	SHALL		<a href="#">86-22217</a>	
@value	1..1	SHALL		<a href="#">86-22218</a>	
@unit	1..1	SHALL		<a href="#">86-22219</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-22208).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-22209).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22210) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.127" (CONF:86-22211).
4. **SHALL** contain exactly one [1..1] **code** (CONF:86-22212).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="289248003" Duration of labor (CONF:86-22213).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28355).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-22214).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-22215).

6. **SHALL** contain exactly one [1..1] **value** with @xsi:type="IVL\_TS" (CONF:86-22216).
  - a. This value **SHALL** contain exactly one [1..1] **width** (CONF:86-22217).
    - i. This width **SHALL** contain exactly one [1..1] **@value** (CONF:86-22218).
    - ii. This width **SHALL** contain exactly one [1..1] **@unit** (CONF:86-22219).
7. The value of width/@value **SHALL** be a non-negative integer representing the duration of labor in terms of the units specified in @unit (CONF:86-22221).

**Figure 79: Duration of Labor Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- HAI Duration of Labor Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.127"/>
  <code code="289248003"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED"
    displayName="Duration of labor"/>
  <statusCode code="completed"/>
  <value xsi:type="IVL_TS">
    <width value="8" unit="h"/>
  </value>
</observation>
```

### 3.36 Endoscope Used Clinical Statement

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.128 (closed)]

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**Table 228: Endoscope Used Clinical Statement Contexts**

Contained By:	Contains:
<a href="#">Procedure Risk Factors Clinical Statement in a Procedure Report</a> (required)	

This clinical statement records whether an endoscope was used.

If an endoscope was used, set the value of @negationInd to false. If an endoscope was not used, set the value of @negationInd to true.

**Table 229: Endoscope Used Clinical Statement Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.128)					
@classCode	1..1	SHALL		<a href="#">86-21992</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">86-21993</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-21994</a>	
templateId	1..1	SHALL		<a href="#">86-28235</a>	
@root	1..1	SHALL		<a href="#">86-28236</a>	2.16.840.1.113883.10.20.22.4.14
templateId	1..1	SHALL		<a href="#">86-22160</a>	
@root	1..1	SHALL		<a href="#">86-22161</a>	2.16.840.1.113883.10.20.5.6.128
id	1..1	SHALL		<a href="#">86-22162</a>	
code	1..1	SHALL		<a href="#">86-21995</a>	
@code	1..1	SHALL		<a href="#">86-21996</a>	423827005
@codeSystem	1..1	SHALL		<a href="#">86-28184</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">86-22163</a>	
@code	1..1	SHALL		<a href="#">86-28107</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. **SHALL** contain exactly one [1..1] **@classCode**="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21992).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21993).
4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:86-21994).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28235) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.14" (CONF:86-28236).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22160) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.128" (CONF:86-22161).
7. **SHALL** contain exactly one [1..1] **id** (CONF:86-22162).
8. **SHALL** contain exactly one [1..1] **code** (CONF:86-21995).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="423827005" Endoscopy (CONF:86-21996).

- b. This code **SHALL** contain exactly one [1..1] `@codeSystem="2.16.840.1.113883.6.96"` (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28184).
9. **SHALL** contain exactly one [1..1] `statusCode` (CONF:86-22163).
  - a. This `statusCode` **SHALL** contain exactly one [1..1] `@code="completed"` Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-28107).

**Figure 80: Endoscope Used Clinical Statement Example**

```
<procedure classCode="PROC" moodCode="EVN" negationInd="false">
  <!-- C-CDA Procedure Activity Procedure templateId. -->
  <templateId root="2.16.840.1.113883.10.20.22.4.14" />
  <!-- HAI Endoscope Used Clinical Statement templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.128" />
  <id root="807007ba-c8f0-4842-9c3c-4a4e4c570849" />
  <code codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED"
    code="423827005"
    displayName="Endoscopy" />
  <statusCode code="completed" />
</procedure>
```

### 3.37 Epidermolysis Bullosa Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.252:2018-04-01 (closed)]

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**Table 230: Epidermolysis Bullosa Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a BSI Report (V3)</a> (required)	

This observation records whether the person had epidermolysis bullosa.

If the person did have epidermolysis bullosa, set the value of `@negationInd` to false. If the person did not have epidermolysis bullosa, set the value of `@negationInd` to true.

**Table 231: Epidermolysis Bullosa Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.252:2018-04-01)					
@classCode	1..1	SHALL		<a href="#">3357-30665</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">3357-30666</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">3357-30667</a>	
templateId	1..1	SHALL		<a href="#">3357-30650</a>	
@root	1..1	SHALL		<a href="#">3357-30656</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">3357-30655</a>	
@root	1..1	SHALL		<a href="#">3357-30663</a>	2.16.840.1.113883.10.20.5.6.252
@extension	1..1	SHALL		<a href="#">3357-30664</a>	2018-04-01
id	1..1	SHALL		<a href="#">3357-30651</a>	
@nullFlavor	1..1	SHALL		<a href="#">3357-30657</a>	NA
code	1..1	SHALL		<a href="#">3357-30652</a>	
@code	1..1	SHALL		<a href="#">3357-30658</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">3357-30659</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">3357-30653</a>	
@code	1..1	SHALL		<a href="#">3357-30660</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">3357-30654</a>	
@code	1..1	SHALL	CS	<a href="#">3357-30661</a>	3057-7
@codeSystem	1..1	SHALL		<a href="#">3357-30662</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).



2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3357-30665).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3357-30666).

If the person did have epidermolysis bullosa, set the value of **@negationInd** to false. If the person did not have epidermolysis bullosa, set the value of **@negationInd** to true.

4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:3357-30667).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-30650) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.4" (CONF:3357-30656).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-30655) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.252" (CONF:3357-30663).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2018-04-01" (CONF:3357-30664).
7. **SHALL** contain exactly one [1..1] **id** (CONF:3357-30651).
  - a. This **id** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:3357-30657).
8. **SHALL** contain exactly one [1..1] **code** (CONF:3357-30652).
  - a. This **code** **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:3357-30658).
  - b. This **code** **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3357-30659).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3357-30653).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:3357-30660).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:3357-30654).
  - a. This **value** **SHALL** contain exactly one [1..1] **@code**="3057-7" Epidermolysis bullosa during current admission (CONF:3357-30661).
  - b. This **value** **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3357-30662).

**Figure 81: Epidermolysis Bullosa Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- [C-CDA R1.1] Problem Observation -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- [HAI R3D3] Epidermolysis Bullosa Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.252" extension="2018-04-01"/>
  <id nullFlavor="NA"/>
  <code code="ASSERTION"
    codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    code="3057-7"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    displayName="Epidermolysis bullosa during current admission "/>
</observation>
```

### 3.38 Extracorporeal Life Support Present

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.246:2017-04-01  
(closed)]

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**Table 232: Extracorporeal Life Support Present Contexts**

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a BSI Report (V3)</a> (required)	

This procedure represents whether or not an extracorporeal life support (ECLS) system is present. The code for the procedure is represented with nullFlavor="UNK" as the procedure to implant the ECLS is unknown. The ECLS device is represented by the participant.

If an extracorporeal life support system was present, set the value of @negationInd to false. If an extracorporeal life support system was not present, set the value of @negationInd to true.

**Table 233: Extracorporeal Life Support Present Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.246:2017-04-01)					
@classCode	1..1	SHALL		<a href="#">3311-212</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">3311-213</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">3311-214</a>	
templateId	1..1	SHALL		<a href="#">3311-204</a>	
@root	1..1	SHALL		<a href="#">3311-210</a>	2.16.840.1.113883.10.20.5.6.246
@extension	1..1	SHALL		<a href="#">3311-211</a>	2017-04-01
code	1..1	SHALL		<a href="#">3311-201</a>	
@nullFlavor	1..1	SHALL		<a href="#">3311-28438</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK
statusCode	1..1	SHALL		<a href="#">3311-202</a>	
@code	1..1	SHALL		<a href="#">3311-207</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
participant	1..1	SHALL		<a href="#">3311-28434</a>	
@typeCode	1..1	SHALL		<a href="#">3311-28439</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV
participantRole	1..1	SHALL		<a href="#">3311-28435</a>	
@classCode	1..1	SHALL		<a href="#">3311-28440</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
playingDevice	1..1	SHALL		<a href="#">3311-28436</a>	
code	1..1	SHALL		<a href="#">3311-28437</a>	
@code	1..1	SHALL		<a href="#">3311-28441</a>	261258006
@codeSystem	1..1	SHALL		<a href="#">3311-28442</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96

1. **SHALL** contain exactly one [1..1] **@classCode**="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3311-212).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3311-213).

If an extracorporeal life support system was present, set the value of **@negationInd** to false. If an extracorporeal life support system was not present set the value of **@negationInd** to true.

3. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:3311-214).

4. **SHALL** contain exactly one [1..1] **templateId** (CONF:3311-204) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.246" (CONF:3311-210).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2017-04-01" (CONF:3311-211).

The code for the procedure is represented with nullFlavor="UNK" as the procedure to implant the ECLS is unknown.

5. **SHALL** contain exactly one [1..1] **code** (CONF:3311-201).
  - a. This code **SHALL** contain exactly one [1..1] **@nullFlavor**="UNK" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:3311-28438).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3311-202).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:3311-207).

The ECLS device is represented by the participant.

7. **SHALL** contain exactly one [1..1] **participant** (CONF:3311-28434).
  - a. This participant **SHALL** contain exactly one [1..1] **@typeCode**="DEV" Device (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3311-28439).
  - b. This participant **SHALL** contain exactly one [1..1] **participantRole** (CONF:3311-28435).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode**="MANU" manufactured product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3311-28440).
    - ii. This participantRole **SHALL** contain exactly one [1..1] **playingDevice** (CONF:3311-28436).
      1. This playingDevice **SHALL** contain exactly one [1..1] **code** (CONF:3311-28437).
        - a. This code **SHALL** contain exactly one [1..1] **@code**="261258006" Extracorporeal membrane oxygenation circuit (CONF:3311-28441).
        - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3311-28442).

**Figure 82: Extracorporeal Life Support Present Example**

```
<procedure classCode="PROC" moodCode="EVN" negationInd="false">
  <!-- [HAI R3D2] Extracorporeal Life Support Present -->
  <templateId root="2.16.840.1.113883.10.20.5.6.246" extension="2017-04-01" />
  <code nullFlavor="UNK" />
  <statusCode code="completed" />
  <participant typeCode="DEV">
    <participantRole classCode="MANU">
      <playingDevice>
        <code code="261258006"
          displayName="Extracorporeal membrane oxygenation circuit"
          codeSystem="2.16.840.1.113883.6.96"
          codeSystemName="SNOMED CT" />
      </playingDevice>
    </participantRole>
  </participant>
</procedure>
```

### 3.39 Facility Transfuses Blood Products Treated with Pathogen Reduction Technology Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.236:2016-08-01 (closed)]

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**Table 234: Facility Transfuses Blood Products Treated with Pathogen Reduction Technology Observation (V2) Contexts**

Contained By:	Contains:
<a href="#">Summary Encounter (HV) (V2)</a> (required)	

This clinical statement represents whether or not the facility transfuses blood products treated with pathogen reduction technology.

If the facility does transfuse blood products treated with pathogen reduction technology, set the value of @negationInd to false. If the facility does not transfuse blood products treated with pathogen reduction technology, set the value of @negationInd to true.

**Table 235: Facility Transfuses Blood Products Treated with Pathogen Reduction Technology  
Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.236:2016-08-01)					
@classCode	1..1	SHALL		<a href="#">3247-30698</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">3247-30699</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">3247-30700</a>	
templateId	1..1	SHALL		<a href="#">3247-30690</a>	
@root	1..1	SHALL		<a href="#">3247-30696</a>	2.16.840.1.113883.10.20.5.6.236
@extension	1..1	SHALL		<a href="#">3247-30697</a>	2016-08-01
code	1..1	SHALL		<a href="#">3247-30687</a>	
@code	1..1	SHALL	CS	<a href="#">3247-30691</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">3247-30692</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">3247-30688</a>	
@code	1..1	SHALL		<a href="#">3247-30693</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">3247-30689</a>	
@code	1..1	SHALL		<a href="#">3247-30694</a>	3542-8
@codeSystem	1..1	SHALL		<a href="#">3247-30695</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3247-30698).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3247-30699).

If the facility does transfuse blood products treated with pathogen reduction technology, set the value of **@negationInd** to false. If the facility does not transfuse blood products treated with pathogen reduction technology, set the value of **@negationInd** to true.

3. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:3247-30700).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:3247-30690) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.236" (CONF:3247-30696).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2016-08-01" (CONF:3247-30697).
5. **SHALL** contain exactly one [1..1] **code** (CONF:3247-30687).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:3247-30691).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3247-30692).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3247-30688).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:3247-30693).
7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:3247-30689).
  - a. This value **SHALL** contain exactly one [1..1] **@code**="3542-8" Facility transfuses blood products treated with pathogen reduction technology (CONF:3247-30694).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3247-30695).

**Figure 83: Facility Transfuses Blood Products Treated with Pathogen Reduction Technology Observation (V2) Example**

```
<!-- Facility Transfuses Blood Products Treated with Pathogen Reduction Technology
Observation -->
<!-- If the facility does transfuse blood products treated with pathogen reduction
technology,
    set the value of @negationInd to false.
    If the facility does not transfuse blood products treated with pathogen reduction
technology,
    set the value of @negationInd to true. -->
<!-- The facility does transfuse blood products treated with pathogen reduction technology
so negationInd='false' -->
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- [HAI R3D1.1] Facility Transfuses Blood Products Treated with
    Pathogen Reduction Technology Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.236" extension="2016-08-01" />
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
  <statusCode code="completed" />
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="3542-8"
    displayName="Facility transfuses blood products treated with pathogen reduction
technology" />
</observation>
```

### 3.40 Findings Organizer

[organizer: identifier urn:oid:2.16.840.1.113883.10.20.5.6.182 (closed)]

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Table 236: Findings Organizer Contexts

Contained By:	Contains:
<a href="#">Findings Section in an Infection-Type Report</a> (optional) <a href="#">Findings Section in an OPC SSI Report</a> (optional)	<a href="#">Pathogen Ranking Observation</a> (required) <a href="#">Pathogen Identified Observation</a> (required) <a href="#">Drug-Susceptibility Test Observation</a> (optional)

Each Findings Organizer represents a set of information concerning a single pathogen identified. The organizer contains two component elements that record the pathogen and its rank in regard to the other pathogens identified, and can contain additional component elements recording drug-susceptibility test findings. For pathogen antibiogram reporting requirements, refer to the NHSN protocol and the Information Data Model (IDM).



**Table 237: Findings Organizer Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
organizer (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.182)					
@classCode	1..1	SHALL		<a href="#">86-22239</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">86-22240</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-22241</a>	
@root	1..1	SHALL		<a href="#">86-22242</a>	2.16.840.1.113883.10.20.5.6.182
id	1..1	SHALL		<a href="#">86-22243</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22770</a>	NA
statusCode	1..1	SHALL		<a href="#">86-22244</a>	
@code	1..1	SHALL		<a href="#">86-22245</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
component	1..1	SHALL		<a href="#">86-22246</a>	
observation	1..1	SHALL		<a href="#">86-22247</a>	<a href="#">Pathogen Identified Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.145)</a>
component	1..1	SHALL		<a href="#">86-22248</a>	
observation	1..1	SHALL		<a href="#">86-22249</a>	<a href="#">Pathogen Ranking Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.147)</a>
component	0..*	MAY		<a href="#">86-22250</a>	
observation	1..1	SHALL		<a href="#">86-22251</a>	<a href="#">Drug-Susceptibility Test Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.126)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="CLUSTER" Cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-22239).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-22240).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22241) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.182" (CONF:86-22242).
4. **SHALL** contain exactly one [1..1] **id** (CONF:86-22243).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22770).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-22244).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-22245).

6. **SHALL** contain exactly one [1..1] **component** (CONF:86-22246) such that it
  - a. **SHALL** contain exactly one [1..1] [Pathogen Identified Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.145) (CONF:86-22247).
7. **SHALL** contain exactly one [1..1] **component** (CONF:86-22248) such that it
  - a. **SHALL** contain exactly one [1..1] [Pathogen Ranking Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.147) (CONF:86-22249).
8. **MAY** contain zero or more [0..\*] **component** (CONF:86-22250) such that it
  - a. **SHALL** contain exactly one [1..1] [Drug-Susceptibility Test Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.126) (CONF:86-22251).

**Figure 84: Findings Organizer Example**

```
<organizer classCode="CLUSTER" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.5.6.182"/>
  <id nullFlavor="NA"/ >
  <statusCode code="completed"/>
  <component>
    <observation classCode="OBS" moodCode="EVN">
      <!-- C-CDA Result Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
      <!-- Pathogen Identified Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.145"/>
      ...
    </observation>
  </component>
  <component>
    <observation classCode="OBS" moodCode="EVN">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- HAI Pathogen Ranking Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.147"/>
      ...
    </observation>
  </component>
  <component>
    <observation classCode="OBS" moodCode="EVN">
      <!-- C-CDA Result Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
      <!-- HAI Drug-Susceptibility Test Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.126"/>
      ...
    </observation>
  </component>
</organizer>
```

### 3.41 Genotypic Testing for Antimicrobial Resistance Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.302:2024-05-01 (closed)]

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Table 238: Genotypic Testing for Antimicrobial Resistance Observation Contexts

Contained By:	Contains:
<a href="#">Genotypic Testing for Antimicrobial Resistance Organizer</a> (required)	

This clinical statement represents the results of laboratory tests used to detect a gene or multiple genes indicating antimicrobial resistance. The type of test is recorded in the code element; the results of the test are recorded in the value element.

If no genotypic testing for antimicrobial resistance was done, set the value of @negationInd to true, set the value of code to 18725-2 | Microbiology studies, and set the value of value/@nullFlavor to "NA". If genotypic testing for antimicrobial resistance was completed, set the value of @negationInd to false.

**Table 239: Genotypic Testing for Antimicrobial Resistance Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.302:2024-05-01)					
@classCode	1..1	SHALL		<a href="#">5554-31088</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">5554-31089</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">5554-31117</a>	
templateId	1..1	SHALL		<a href="#">5554-31083</a>	
@root	1..1	SHALL		<a href="#">5554-31090</a>	2.16.840.1.113883.10.20.22.4.2
templateId	1..1	SHALL		<a href="#">5554-31087</a>	
@root	1..1	SHALL		<a href="#">5554-31096</a>	2.16.840.1.113883.10.20.5.6.302
@extension	1..1	SHALL		<a href="#">5554-31097</a>	2024-05-01
id	1..1	SHALL		<a href="#">5554-31084</a>	
@nullFlavor	1..1	SHALL		<a href="#">5554-31091</a>	NA
code	1..1	SHALL		<a href="#">5554-31092</a>	urn:oid:2.16.840.1.114222.24.7.280 (NHSNGenotypicTests)
statusCode	1..1	SHALL		<a href="#">5554-31085</a>	
@code	1..1	SHALL		<a href="#">5554-31093</a>	completed
effectiveTime	1..1	SHALL		<a href="#">5554-31086</a>	
@nullFlavor	1..1	SHALL		<a href="#">5554-31094</a>	NA
value	1..1	SHALL	CD	<a href="#">5554-31095</a>	urn:oid:2.16.840.1.113883.10.20.5.9.50 (NHSNGenotypicTestInterpretation)
@nullFlavor	0..1	MAY		<a href="#">5554-31118</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA

1. Conforms to Result Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.2).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:5554-31088).

3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:5554-31089).
4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:5554-31117).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:5554-31083) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.2" (CONF:5554-31090).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:5554-31087) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.302" (CONF:5554-31096).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2024-05-01" (CONF:5554-31097).
7. **SHALL** contain exactly one [1..1] **id** (CONF:5554-31084).
  - a. This **id** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:5554-31091).
8. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [NHSNGenotypicTests](#) urn:oid:2.16.840.1.114222.24.7.280 **DYNAMIC** (CONF:5554-31092).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:5554-31085).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="completed" (CONF:5554-31093).
10. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5554-31086).
  - a. This **effectiveTime** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:5554-31094).
11. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", where the code **SHALL** be selected from ValueSet [NHSNGenotypicTestInterpretation](#) urn:oid:2.16.840.1.113883.10.20.5.9.50 **DYNAMIC** (CONF:5554-31095).
  - a. This **value** **MAY** contain zero or one [0..1] **@nullFlavor**="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:5554-31118).

**Table 240: NHSN Genotypic Tests**

Value Set: NHSN Genotypic Tests urn:oid:2.16.840.1.114222.24.7.280 (Clinical Focus: Culture-independent diagnostic tests for reporting to NHSN AUR),(Data Element Scope: Lab test performed),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 8/27/2024 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.24.7.280/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.24.7.280/expansion</a>			
Code	Code System	Code System OID	Print Name
101126-1	LOINC	urn:oid:2.16.840.1.113883.6.1	Bacterial carbapenem resistance blaOXA-24+blaOXA-40 genes [Presence] by Molecular method
48813-0	LOINC	urn:oid:2.16.840.1.113883.6.1	Methicillin resistance mecA gene [Presence] by Molecular method
48814-8	LOINC	urn:oid:2.16.840.1.113883.6.1	Vancomycin resistance vanA gene [Presence] by Molecular method
49617-4	LOINC	urn:oid:2.16.840.1.113883.6.1	Carbapenem resistance blaKPC gene [Presence] by Molecular method
62261-3	LOINC	urn:oid:2.16.840.1.113883.6.1	Vancomycin resistance vanA + vanB genes [Presence] by Molecular method
72421-1	LOINC	urn:oid:2.16.840.1.113883.6.1	Vancomycin resistance vanB gene [Presence] by Molecular method
73982-1	LOINC	urn:oid:2.16.840.1.113883.6.1	Carbapenem resistance blaNDM gene [Presence] by Molecular method
85501-5	LOINC	urn:oid:2.16.840.1.113883.6.1	Carbapenem resistance blaVIM gene [Presence] by Molecular method
85824-1	LOINC	urn:oid:2.16.840.1.113883.6.1	Carbapenem resistance blaIMP gene [Presence] by NAA with probe detection
85825-8	LOINC	urn:oid:2.16.840.1.113883.6.1	Carbapenem resistance blaOXA-23-like gene [Presence] by Molecular method
...			

**Table 241: NHSN Genotypic Test Interpretation**

Value Set: NHSN Genotypic Test Interpretation urn:oid:2.16.840.1.113883.10.20.5.9.50 (Clinical Focus: Interpretation codes for genotypic testing),(Data Element Scope: Genotypic testing observation value),(Inclusion Criteria: n/a),(Exclusion Criteria: n/a)  This value set was imported on 8/19/2024 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.50/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.50/expansion</a>			
Code	Code System	Code System OID	Print Name
260373001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Detected (qualifier value)
260415000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Not detected (qualifier value)
455371000124106	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Invalid result (qualifier value)
82334004	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Indeterminate (qualifier value)

**Figure 85: Genotypic Testing for Antimicrobial Resistance Observation Example**

<pre>&lt;observation classCode="OBS" moodCode="EVN" negationInd="false"&gt;   &lt;!-- [C-CDA R1.1] Result Observation --&gt;   &lt;templateId root="2.16.840.1.113883.10.20.22.4.2" /&gt;   &lt;!-- [HAI R4STU3] Genotypic Testing for Antimicrobial Resistance Observation --&gt;   &lt;templateId root="2.16.840.1.113883.10.20.5.6.302" extension="2024-05-01" /&gt;   &lt;id nullFlavor="NA" /&gt;   &lt;code code="48813-0"     codeSystem="2.16.840.1.113883.6.1"     codeSystemName="LOINC"     displayName="Bacterial methicillin resistance (mecA) gene [Presence] by Probe and target amplification method" /&gt;   &lt;statusCode code="completed" /&gt;   &lt;effectiveTime nullFlavor="NA" /&gt;   &lt;value xsi:type="CD" code="260415000"     codeSystem="2.16.840.1.113883.6.96"     codeSystemName="SNOMED CT"     displayName="Not detected" /&gt; &lt;/observation&gt;</pre>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Figure 86: Genotypic Testing for Antimicrobial Resistance Observation (no tests done) Example**

```
<!-- The following commented out component represents an assertion that
no genotypic testing for antimicrobial resistance was done
If no genotypic testing for antimicrobial resistance was done,
set the value of @negationInd to true,
set the value of code to 18725-2 | Microbiology studies,
and set the value of value/@nullFlavor to "NA".-->
<observation classCode="OBS" moodCode="EVN" negationInd="true">
  <!-- [C-CDA R1.1] Result Observation -->
  <templateId root="2.16.840.1.113883.10.20.22.4.2" />
  <!-- [HAI R4STU3] Genotypic Testing for Antimicrobial Resistance Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.302" extension="2024-05-01" />
  <id nullFlavor="NA" />
  <!-- Use 18725-2 | Microbiology studies for no tests done -->
  <code code="18725-2"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="Microbiology studies" />
  <statusCode code="completed" />
  <effectiveTime nullFlavor="NA" />
  <value xsi:type="CD" nullFlavor="NA" />
</observation>
```

3.42 Genotypic Testing for Antimicrobial Resistance Organizer

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.303:2024-05-01  
(closed)]

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**Table 242: Genotypic Testing for Antimicrobial Resistance Organizer Contexts**

Contained By:	Contains:
<a href="#">Isolate Susceptibility Tests Organizer (V5)</a> (required)	<a href="#">Genotypic Testing for Antimicrobial Resistance Observation</a> (required)

This organizer represents the set of laboratory tests used to detect a gene or multiple genes indicating antimicrobial resistance.



**Table 243: Genotypic Testing for Antimicrobial Resistance Organizer Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.303:2024-05-01)					
@classCode	1..1	SHALL		<a href="#">5554-31105</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">5554-31106</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">5554-31098</a>	
@root	1..1	SHALL		<a href="#">5554-31107</a>	2.16.840.1.113883.10.20.22.4.1
templateId	1..1	SHALL		<a href="#">5554-31104</a>	
@root	1..1	SHALL		<a href="#">5554-31111</a>	2.16.840.1.113883.10.20.5.6.303
@extension	1..1	SHALL		<a href="#">5554-31112</a>	2024-05-01
id	1..1	SHALL		<a href="#">5554-31099</a>	
@nullFlavor	1..1	SHALL		<a href="#">5554-31108</a>	NA
code	1..1	SHALL		<a href="#">5554-31100</a>	
@code	1..1	SHALL		<a href="#">5554-31109</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 18725-2
statusCode	1..1	SHALL		<a href="#">5554-31101</a>	
@code	1..1	SHALL		<a href="#">5554-31110</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
component	1..*	SHALL		<a href="#">5554-31102</a>	
observation	1..1	SHALL		<a href="#">5554-31103</a>	<a href="#">Genotypic Testing for Antimicrobial Resistance Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.302:2024-05-01)</a>

1. Conforms to Result Organizer template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.1).
2. **SHALL** contain exactly one [1..1] **@classCode**="CLUSTER" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:5554-31105).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:5554-31106).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:5554-31098) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.1" (CONF:5554-31107).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:5554-31104) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.303" (CONF:5554-31111).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2024-05-01" (CONF:5554-31112).
6. **SHALL** contain exactly one [1..1] **id** (CONF:5554-31099).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:5554-31108).
7. **SHALL** contain exactly one [1..1] **code** (CONF:5554-31100).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="18725-2" Microbiology studies (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:5554-31109).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:5554-31101).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:5554-31110).
9. **SHALL** contain at least one [1..\*] **component** (CONF:5554-31102) such that it
  - a. **SHALL** contain exactly one [1..1] [Genotypic Testing for Antimicrobial Resistance Observation](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.302:2024-05-01) (CONF:5554-31103).

**Figure 87: Genotypic Testing for Antimicrobial Resistance Organizer Example**

```

<organizer classCode="CLUSTER" moodCode="EVN">
  <!-- Genotypic Testing for Antimicrobial Resistance Organizer -->
  <templateId root="2.16.840.1.113883.10.20.5.6.303" extension="2024-05-01"/>
  <!-- Conforms to Consolidated CDA Result Organizer template -->
  <templateId root="2.16.840.1.113883.10.20.22.4.1" />
  <id nullFlavor="NA" />
  <code code="18725-2"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        displayName="Microbiology studies" />
  <statusCode code="completed" />
  <component>
    <observation classCode="OBS" moodCode="EVN">
      <!-- Genotypic Testing for Antimicrobial Resistance Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.302" extension="2024-05-01" />
      <!-- Conforms to Consolidated CDA Result Observation template -->
      <templateId root="2.16.840.1.113883.10.20.22.4.2" />
      ...
    </observation>
  </component>
  ...
</organizer>

```

### 3.43 Gestational Age at Birth Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.255:2019-04-01 (closed)]

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**Table 244: Gestational Age at Birth Observation (V2) Contexts**

Contained By:	Contains:
<a href="#">Risk Factors Section in a LOS/Men Denominator</a> (required) <a href="#">Risk Factors Section in a LOS/Men Event (V2)</a> (required)	

This template represents gestational age at birth, as measured in days. Although gestational age of an infant is typically recorded in weeks plus days (e.g., 27 weeks and 3 days), the xsi:type PQ does not allow for mixed units. The gestational age must be represented in days. For example, 27 weeks and 3 days would be represented with 192 days. If unknown, set value/@nullFlavor="UNK".

**Table 245: Gestational Age at Birth Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.255:2019-04-01)					
@classCode	1..1	SHALL		<a href="#">4395-30769</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4395-30770</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">4395-30771</a>	false
templateId	1..1	SHALL		<a href="#">4395-30764</a>	
@root	1..1	SHALL		<a href="#">4395-30773</a>	2.16.840.1.113883.10.20.5.6.255
@extension	1..1	SHALL		<a href="#">4395-30976</a>	2019-04-01
code	1..1	SHALL		<a href="#">4395-30765</a>	
@code	1..1	SHALL		<a href="#">4395-30977</a>	76516-4
@codeSystem	1..1	SHALL		<a href="#">4395-30978</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
value	1..1	SHALL	PQ	<a href="#">4395-30768</a>	
@nullFlavor	0..1	MAY		<a href="#">4395-30980</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK
@unit	0..1	SHOULD		<a href="#">4395-30979</a>	urn:oid:2.16.840.1.113883.6.8 (UCUM) = d

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4395-30769).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4395-30770).
3. **SHALL** contain exactly one [1..1] **@negationInd**="false" (CONF:4395-30771).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-30764) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.255" (CONF:4395-30773).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30976).
5. **SHALL** contain exactly one [1..1] **code** (CONF:4395-30765).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="76516-4" Gestational age at birth (CONF:4395-30977).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30978).

6. **SHALL** contain exactly one [1..1] **value** with @xsi:type="PQ" (CONF:4395-30768).

If unknown, set @nullFlavor to "UNK".

- a. This value **MAY** contain zero or one [0..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:4395-30980).
- b. This value **SHOULD** contain zero or one [0..1] @unit="d" Days (CodeSystem: UCUM urn:oid:2.16.840.1.113883.6.8) (CONF:4395-30979).

**Figure 88: Gestational Age Observation (V2) Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- [HAI R3D4] Gestational Age Observation (V2) -->
  <templateId root="2.16.840.1.113883.10.20.5.6.255" extension="2019-04-01"/>
  <code code="76516-4" codeSystem="2.16.840.1.113883.6.1" displayName="Gestational age at birth" codeSystemName="LOINC"/>
  <value xsi:type="PQ" value="276" unit="d"/>
</observation>
```

### 3.44 Guidewire Used Clinical Statement

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.129 (closed)]

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**Table 246: Guidewire Used Clinical Statement Contexts**

Contained By:	Contains:
<a href="#">Reason for Procedure Observation</a> (optional)	

This clinical statement records whether the performance of a central-line exchange used a guidewire. If the central line was exchanged over a guidewire, set the value of @negationInd to false. If the central line was not exchanged over a guidewire, set the value of @negationInd to true.

**Table 247: Guidewire Used Clinical Statement Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.129)					
@classCode	1..1	SHALL		<a href="#">86-22151</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">86-22152</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-22153</a>	
templateId	1..1	SHALL		<a href="#">86-28237</a>	
@root	1..1	SHALL		<a href="#">86-28238</a>	2.16.840.1.113883.10.20.22.4.14
templateId	1..1	SHALL		<a href="#">86-22154</a>	
@root	1..1	SHALL		<a href="#">86-22155</a>	2.16.840.1.113883.10.20.5.6.129
id	1..1	SHALL		<a href="#">86-22156</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22751</a>	NA
code	1..1	SHALL		<a href="#">86-22157</a>	
@code	1..1	SHALL		<a href="#">86-22158</a>	3121-1
@codeSystem	1..1	SHALL		<a href="#">86-28185</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
statusCode	1..1	SHALL		<a href="#">86-22159</a>	
@code	1..1	SHALL		<a href="#">86-28108</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. **SHALL** contain exactly one [1..1] **@classCode**="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-22151).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-22152).
4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:86-22153).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28237) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.14" (CONF:86-28238).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22154) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.129" (CONF:86-22155).
7. **SHALL** contain exactly one [1..1] **id** (CONF:86-22156).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22751).
8. **SHALL** contain exactly one [1..1] **code** (CONF:86-22157).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="3121-1" Central line exchanged over guidewire (CONF:86-22158).

- b. This code **SHALL** contain exactly one [1..1] `@codeSystem="2.16.840.1.113883.6.277"` (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:86-28185).
9. **SHALL** contain exactly one [1..1] `statusCode` (CONF:86-22159).
  - a. This `statusCode` **SHALL** contain exactly one [1..1] `@code="completed"` Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-28108).

**Figure 89: Guidewire Used Clinical Statement Example**

```
<procedure moodCode="EVN" classCode="PROC" negationInd="false">
  <!-- C-CDA Procedure Activity Procedure templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.14" />
  <!-- HAI Guidewire Used Clinical Statement templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.129" />
  <id nullFlavor="NA" />
  <code code="3121-1"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    displayName="Central line exchanged over guidewire" />
  <statusCode code="completed" />
</procedure>
```

### 3.45 Hand Hygiene Performed Clinical Statement

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.130 (closed)]

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**Table 248: Hand Hygiene Performed Clinical Statement Contexts**

Contained By:	Contains:
<a href="#">Central-Line Insertion Preparation Organizer (V2)</a> (required)	

This clinical statement reports whether hand hygiene was performed. It is one of the actions recorded in the first, preparatory step of the central-line insertion practice sequence.

If the preparation step included hand hygiene, set the value of `@negationInd` to false. If the preparation step did not include hand hygiene, set the value of `@negationInd` to true.

**Table 249: Hand Hygiene Performed Clinical Statement Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.130)					
@classCode	1..1	SHALL		<a href="#">86-22141</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">86-22142</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-22143</a>	
templateId	1..1	SHALL		<a href="#">86-28239</a>	
@root	1..1	SHALL		<a href="#">86-28240</a>	2.16.840.1.113883.10.20.22.4.14
templateId	1..1	SHALL		<a href="#">86-22144</a>	
@root	1..1	SHALL		<a href="#">86-22145</a>	2.16.840.1.113883.10.20.5.6.130
id	1..1	SHALL		<a href="#">86-22146</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22752</a>	NA
code	1..1	SHALL		<a href="#">86-22147</a>	
@code	1..1	SHALL		<a href="#">86-22148</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 3109-6
statusCode	1..1	SHALL		<a href="#">86-22149</a>	
@code	1..1	SHALL		<a href="#">86-22150</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. **SHALL** contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-22141).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-22142).
4. **SHALL** contain exactly one [1..1] @negationInd (CONF:86-22143).
5. **SHALL** contain exactly one [1..1] templateId (CONF:86-28239) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.14" (CONF:86-28240).
6. **SHALL** contain exactly one [1..1] templateId (CONF:86-22144) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.130" (CONF:86-22145).
7. **SHALL** contain exactly one [1..1] id (CONF:86-22146).
  - a. This id **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22752).
8. **SHALL** contain exactly one [1..1] code (CONF:86-22147).
  - a. This code **SHALL** contain exactly one [1..1] @code="3109-6" Hand hygiene (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277 **STATIC**) (CONF:86-22148).



9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-22149).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-22150).

**Figure 90: Hand Hygiene Performed Clinical Statement Example**

```
<component>
  <procedure moodCode="EVN" classCode="PROC" negationInd="false">
    <!-- C-CDA Procedure Activity Procedure templateId -->
    <templateId root="2.16.840.1.113883.10.20.22.4.14" />
    <!-- HAI Hand Hygiene Performed Clinical Statement templateId -->
    <templateId root="2.16.840.1.113883.10.20.5.6.130" />
    <id nullFlavor="NA" />
    <code code="3109-6"
      codeSystem="2.16.840.1.113883.6.277"
      codeSystemName="cdcNHSN"
      displayName="Hand hygiene" />
    <statusCode code="completed"/>
  </procedure>
</component>
```

### 3.46 Height Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.131 (closed)]

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**Table 250: Height Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a Procedure Report</a> (required) <a href="#">Infection Risk Factors Section in an OPC Denominator for Procedure</a> (required)	

This observation records a body height.

**Table 251: Height Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.131)					
@classCode	1..1	SHALL		<a href="#">86-19729</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-19730</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-19731</a>	false
templateId	1..1	SHALL		<a href="#">86-28241</a>	
@root	1..1	SHALL		<a href="#">86-28242</a>	2.16.840.1.113883.10.20.22.4.27
templateId	1..1	SHALL		<a href="#">86-19746</a>	
@root	1..1	SHALL		<a href="#">86-27434</a>	2.16.840.1.113883.10.20.5.6.131
id	1..1	SHALL		<a href="#">86-19748</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22753</a>	NA
code	1..1	SHALL		<a href="#">86-19732</a>	
@code	1..1	SHALL		<a href="#">86-19733</a>	50373000
@codeSystem	1..1	SHALL		<a href="#">86-28191</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">86-19734</a>	
@code	1..1	SHALL		<a href="#">86-19735</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">86-19749</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22754</a>	NA
value	1..1	SHALL	PQ	<a href="#">86-19736</a>	
@value	1..1	SHALL		<a href="#">86-19750</a>	
@unit	1..1	SHALL		<a href="#">86-19752</a>	

1. Conforms to Vital Sign Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.27).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-19729).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-19730).
4. **SHALL** contain exactly one [1..1] @negationInd="false" (CONF:86-19731).
5. **SHALL** contain exactly one [1..1] templateId (CONF:86-28241) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.27" (CONF:86-28242).
6. **SHALL** contain exactly one [1..1] templateId (CONF:86-19746) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.131" (CONF:86-27434).
7. **SHALL** contain exactly one [1..1] **id** (CONF:86-19748).
  - a. This **id** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22753).
8. **SHALL** contain exactly one [1..1] **code** (CONF:86-19732).
  - a. This **code** **SHALL** contain exactly one [1..1] **@code**="50373000" Body height (CONF:86-19733).
  - b. This **code** **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28191).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-19734).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-19735).
10. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:86-19749).
  - a. This **effectiveTime** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22754).
11. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:86-19736).
  - a. This **value** **SHALL** contain exactly one [1..1] **@value** (CONF:86-19750).
    - i. The value of **@value** **SHALL** be a non-negative real number representing the body height in terms of the units specified in **@unit** (CONF:86-19751).
  - b. This **value** **SHALL** contain exactly one [1..1] **@unit** (CONF:86-19752).

**Figure 91: Height Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Vital Sign Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.27"/>
  <!-- HAI Height Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.131"/>
  <id nullFlavor="NA"/>
  <code code="50373000"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED"
    displayName="Body Height"/>
  <statusCode code="completed"/>
  <effectiveTime nullFlavor="NA"/>
  <value xsi:type="PQ" value="1.9" unit="m"/>
</observation>
```

### 3.47 Hemodialysis Catheter Present

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.245:2017-04-01  
(closed)]

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**Table 252: Hemodialysis Catheter Present Contexts**

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a BSI Report (V3)</a> (required)	

This procedure represents whether or not a hemodialysis catheter is present. The code for the procedure is represented with nullFlavor="UNK" as the procedure to implant the hemodialysis catheter is unknown. The hemodialysis catheter device is represented by the participant.

If a hemodialysis catheter was present, set the value of @negationInd to false. If a hemodialysis catheter was not present, set the value of @negationInd to true.

**Table 253: Hemodialysis Catheter Present Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.245:2017-04-01)					
@classCode	1..1	SHALL		<a href="#">3311-196</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">3311-197</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">3311-198</a>	
templateId	1..1	SHALL		<a href="#">3311-190</a>	
@root	1..1	SHALL		<a href="#">3311-199</a>	2.16.840.1.113883.10.20.5.6.245
@extension	1..1	SHALL		<a href="#">3311-200</a>	2017-04-01
code	1..1	SHALL		<a href="#">3311-187</a>	
@nullFlavor	1..1	SHALL		<a href="#">3311-28444</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK
statusCode	1..1	SHALL		<a href="#">3311-188</a>	
@code	1..1	SHALL		<a href="#">3311-193</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
participant	1..1	SHALL		<a href="#">3311-28453</a>	
@typeCode	1..1	SHALL		<a href="#">3311-28458</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV
participantRole	1..1	SHALL		<a href="#">3311-28454</a>	
@classCode	1..1	SHALL		<a href="#">3311-28459</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
playingDevice	1..1	SHALL		<a href="#">3311-28460</a>	
code	1..1	SHALL		<a href="#">3311-28461</a>	
@code	1..1	SHALL		<a href="#">3311-28462</a>	450866001
@codeSystem	1..1	SHALL		<a href="#">3311-28463</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96

1. **SHALL** contain exactly one [1..1] **@classCode**="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3311-196).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3311-197).

If a hemodialysis catheter was present, set the value of @negationInd to false. If a hemodialysis catheter was not present set the value of @negationInd to true.

3. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:3311-198).

4. **SHALL** contain exactly one [1..1] **templateId** (CONF:3311-190) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.245" (CONF:3311-199).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2017-04-01" (CONF:3311-200).

The code for the procedure is represented with nullFlavor="UNK" as the procedure to implant the hemodialysis catheter is unknown.

5. **SHALL** contain exactly one [1..1] **code** (CONF:3311-187).
  - a. This code **SHALL** contain exactly one [1..1] **@nullFlavor**="UNK" Unknown (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:3311-28444).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3311-188).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:3311-193).

The hemodialysis catheter device is represented by the participant.

7. **SHALL** contain exactly one [1..1] **participant** (CONF:3311-28453).
  - a. This participant **SHALL** contain exactly one [1..1] **@typeCode**="DEV" Device (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3311-28458).
  - b. This participant **SHALL** contain exactly one [1..1] **participantRole** (CONF:3311-28454).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode**="MANU" Manufactured product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3311-28459).
    - ii. This participantRole **SHALL** contain exactly one [1..1] **playingDevice** (CONF:3311-28460).
      1. This playingDevice **SHALL** contain exactly one [1..1] **code** (CONF:3311-28461).
        - a. This code **SHALL** contain exactly one [1..1] **@code**="450866001" Hemodialysis catheter (CONF:3311-28462).
        - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3311-28463).

**Figure 92: Hemodialysis Catheter Present Example**

```
<procedure classCode="PROC" moodCode="EVN" negationInd="false">
  <!-- [HAI R3D2] Hemodialysis Catheter Present-->
  <templateId root="2.16.840.1.113883.10.20.5.6.245" extension="2017-04-01" />
  <code nullFlavor="UNK" />
  <statusCode code="completed" />
  <participant typeCode="DEV">
    <participantRole classCode="MANU">
      <playingDevice>
        <code code="450866001"
          codeSystem="2.16.840.1.113883.6.96"
          codeSystemName="SNOMED CT"
          displayName="Hemodialysis catheter" />
      </playingDevice>
    </participantRole>
  </participant>
</procedure>
```

### 3.48 History of Object Presence Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.132 (closed)]

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**Table 254: History of Object Presence Observation Contexts**

Contained By:	Contains:
<a href="#">Urinary Catheter Observation</a> (optional)	

This observation records a fact about the history of an object's presence. The observation is intended for use within a context that specifies the object.

When used within the Urinary Catheter Observation, if the patient had a urinary catheter removed within 48 hours, set the value of @negationInd to false. If the patient did not have a urinary catheter removed within 48 hours, set the value of @negationInd to true.

**Table 255: History of Object Presence Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.132)					
@classCode	1..1	SHALL		<a href="#">86-22196</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-22197</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-22198</a>	
templateId	1..1	SHALL		<a href="#">86-22199</a>	
@root	1..1	SHALL		<a href="#">86-22200</a>	2.16.840.1.113883.10.20.5.6.132
id	1..1	SHALL		<a href="#">86-22201</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22755</a>	NA
code	1..1	SHALL		<a href="#">86-22202</a>	
@code	1..1	SHALL		<a href="#">86-22203</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28378</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-22204</a>	
@code	1..1	SHALL		<a href="#">86-22205</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-22206</a>	
@code	1..1	SHALL		<a href="#">86-22207</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2404-2

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-22196).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-22197).
3. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:86-22198).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22199) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.132" (CONF:86-22200).
5. **SHALL** contain exactly one [1..1] **id** (CONF:86-22201).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22755).
6. **SHALL** contain exactly one [1..1] **code** (CONF:86-22202).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:86-22203).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28378).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-22204).



- a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-22205).
8. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:86-22206).
  - a. This value **SHALL** contain exactly one [1..1] @code="2404-2" Removed within 48 hours prior (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277 **STATIC**) (CONF:86-22207).

**Figure 93: History of Object Presence Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- HAI History of Object Presence Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.132"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.5.4"
    code="ASSERTION"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="2404-2"
    displayName="Removed within 48 hours prior"/>
</observation>
```

### 3.49 Hospital Admission Clinical Statement

[act: identifier urn:oid:2.16.840.1.113883.10.20.5.6.133 (closed)]

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**Table 256: Hospital Admission Clinical Statement Contexts**

Contained By:	Contains:
<a href="#">Details Section in an Evidence of Infection (Dialysis) Report (V6)</a> (required)	

This clinical statement records whether the outpatient was hospitalized. A causal relationship to the infection indicator(s) is not recorded.

When the outpatient was hospitalized, set the value of act/@negationInd to false. When the outpatient was not hospitalized, set the value of act/@negationInd to true. When it is not known whether the outpatient was hospitalized, set the value of act/@nullFlavor to "UNK".

**Table 257: Hospital Admission Clinical Statement Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.133)					
@nullFlavor	0..1	MAY		<a href="#">86-22185</a>	UNK
@classCode	1..1	SHALL		<a href="#">86-22187</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">86-22188</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..1	MAY		<a href="#">86-22189</a>	
templateId	1..1	SHALL		<a href="#">86-22191</a>	
@root	1..1	SHALL		<a href="#">86-22192</a>	2.16.840.1.113883.10.20.5.6.133
id	1..1	SHALL		<a href="#">86-22193</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22756</a>	NA
code	1..1	SHALL		<a href="#">86-22194</a>	
@code	1..1	SHALL		<a href="#">86-22195</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 32485007

1. **MAY** contain zero or one [0..1] **@nullFlavor**="UNK" (CONF:86-22185).
  - a. If it is not known whether the outpatient was hospitalized, the value of act/**@nullFlavor** **SHALL** be UNK (CONF:86-22186).
2. **SHALL** contain exactly one [1..1] **@classCode**="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-22187).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-22188).
4. **MAY** contain zero or one [0..1] **@negationInd** (CONF:86-22189).
  - a. If the outpatient was hospitalized, the value of act/**@negationInd** **SHALL** be false. If the outpatient was not hospitalized, the value of act/**@negationInd** **SHALL** be true (CONF:86-22190).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22191) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.133" (CONF:86-22192).
6. **SHALL** contain exactly one [1..1] **id** (CONF:86-22193).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22756).
7. **SHALL** contain exactly one [1..1] **code** (CONF:86-22194).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="32485007" Hospital Admission (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:86-22195).

**Figure 94: Hospital Admission Clinical Statement Example**

```
<act classCode="ACT" moodCode="EVN" negationInd="false">
  <!-- HAI Hospital Admission templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.133" />
  <id nullFlavor="NA" />
  <code codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED"
        code="32485007"
        displayName="Hospital Admission" />
</act>
```

### 3.50 Imputability Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.134 (closed)]

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**Table 258: Imputability Observation Contexts**

Contained By:	Contains:
<a href="#">Suspected Source Observation</a> (required)	

This observation records the strength of certainty of a relationship between events. The relationship is recorded in the code element.

**Table 259: Imputability Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.134)					
@classCode	1..1	SHALL		<a href="#">86-21796</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-21797</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-21798</a>	
templateId	1..1	SHALL		<a href="#">86-28243</a>	
@root	1..1	SHALL		<a href="#">86-28244</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-21801</a>	
@root	1..1	SHALL		<a href="#">86-21802</a>	2.16.840.1.113883.10.20.5.6.134
id	1..1	SHALL		<a href="#">86-21803</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22757</a>	
code	1..1	SHALL		<a href="#">86-21804</a>	
statusCode	1..1	SHALL		<a href="#">86-21806</a>	
@code	1..1	SHALL		<a href="#">86-21807</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL		<a href="#">86-21808</a>	

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21796).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21797).
4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:86-21798).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28243) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28244).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-21801) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.134" (CONF:86-21802).
7. **SHALL** contain exactly one [1..1] **id** (CONF:86-21803).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor** (CONF:86-22757).
8. **SHALL** contain exactly one [1..1] **code** (CONF:86-21804).
  - a. To record imputability of a positive blood culture to the suspected source of contamination, the value of **@code** **SHALL** be 2307-7 Imputability of positive blood culture to the suspected source 2.16.840.1.113883.6.277 cdcNHSN (CONF:86-21805).

9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-21806).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-21807).
10. **SHALL** contain exactly one [1..1] **value** (CONF:86-21808).
  - a. In an Evidence of Infection (Dialysis) Report, (CONF:86-21809).
    - i. The value of the observation's **@negationInd** **SHALL** be 'false' (CONF:86-21810).
    - ii. The value of **@code** **SHALL** be 60022001 Possible 2.16.840.1.113883.6.96 SNOMED CT (CONF:86-21811).

**Figure 95: Imputability Observation Example**

```
<!-- Imputability of positive blood culture to suspected source example -->
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Imputability Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.134"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="2307-7"
    displayName="Imputability of positive blood culture to the suspected source"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT" code="60022001"
    displayName="Possible"/>
</observation>
```

### 3.51 Inborn/Outborn Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.257:2018-04-01 (open)]

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**Table 260: Inborn/Outborn Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Details in Late Onset Sepsis Report</a> (required)	

This observation represents whether an infant was born at the reporting hospital or some other location. If the negation indicator is false the infant was outborn (born before arrival at reporting hospital), if the negation indicator is true the infant was inborn (born at the reporting hospital).

**Table 261: Inborn/Outborn Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.257:2018-04-01)					
@classCode	1..1	SHALL		<a href="#">3357-30831</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">3357-30832</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">3357-30902</a>	
templateId	1..1	SHALL		<a href="#">3357-30837</a>	
@root	1..1	SHALL		<a href="#">3357-30838</a>	2.16.840.1.113883.10.20.5.6.257
@extension	1..1	SHALL		<a href="#">3357-30839</a>	2018-04-01
code	1..1	SHALL		<a href="#">3357-30834</a>	
@code	1..1	SHALL		<a href="#">3357-30840</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">3357-30841</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">3357-30835</a>	
@code	1..1	SHALL		<a href="#">3357-30872</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">3357-30836</a>	
@code	1..1	SHALL		<a href="#">3357-30903</a>	445087001
@codeSystem	1..1	SHALL		<a href="#">3357-30904</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3357-30831).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3357-30832).
3. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:3357-30902).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-30837).
  - a. This templateId **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.257" (CONF:3357-30838).
  - b. This templateId **SHALL** contain exactly one [1..1] **@extension**="2018-04-01" (CONF:3357-30839).
5. **SHALL** contain exactly one [1..1] **code** (CONF:3357-30834).

- a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3357-30840).
- b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3357-30841).
6. **SHALL** contain exactly one [1..1] statusCode (CONF:3357-30835).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3357-30872).
7. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:3357-30836).
  - a. This value **SHALL** contain exactly one [1..1] @code="445087001" Born before arrival to hospital (situation) (CONF:3357-30903).
  - b. This value **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3357-30904).

**Figure 96: Inborn/Outborn Observation Example**

```
<!-- If the negation indicator is false the infant was outborn
(born before arrival at reporting hospital),
if the negation indicator is true the infant was inborn (born at the reporting
hospital). -->
<!-- This infant was inborn (negationInd="true" -->
<observation classCode="OBS" moodCode="EVN" negationInd="true">
  <!-- [HAI R3D3] Inborn/Outborn Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.257" extension="2018-04-01"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
  <statusCode code="completed"/>
  <value xsi:type="CD" code="445087001"
    displayName="Born before arrival to hospital (situation)"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"/>
</observation>
```

### 3.52 Infection Condition Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.135 (closed)]

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**Table 262: Infection Condition Observation Contexts**

Contained By:	Contains:
<a href="#">Infection-Type Observation</a> (optional) <a href="#">Infection-Type Observation in an OPC SSI Event</a> (required)	

This observation records the infection condition being reported.

**Table 263: Infection Condition Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.135)					
@classCode	1..1	SHALL		<a href="#">86-19883</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-19884</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-19885</a>	false
templateId	1..1	SHALL		<a href="#">86-28245</a>	
@root	1..1	SHALL		<a href="#">86-28246</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-19888</a>	
@root	1..1	SHALL		<a href="#">86-19889</a>	2.16.840.1.113883.10.20.5.6.135
id	1..1	SHALL		<a href="#">86-19890</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22758</a>	NA
code	1..1	SHALL		<a href="#">86-19891</a>	
@code	1..1	SHALL		<a href="#">86-19892</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28379</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-19893</a>	
@code	1..1	SHALL		<a href="#">86-19894</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-19895</a>	urn:oid:2.16.840.1.114222.4.11.3196 (NHSNInfectionConditionCode)

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-19883).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-19884).
4. **SHALL** contain exactly one [1..1] @negationInd="false" (CONF:86-19885).
5. **SHALL** contain exactly one [1..1] templateId (CONF:86-28245) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28246).
6. **SHALL** contain exactly one [1..1] templateId (CONF:86-19888) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.135" (CONF:86-19889).
7. **SHALL** contain exactly one [1..1] id (CONF:86-19890).
  - a. This id **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22758).



8. **SHALL** contain exactly one [1..1] **code** (CONF:86-19891).
  - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** Assertion (CONF:86-19892).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28379).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-19893).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-19894).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"**, where the code **SHALL** be selected from ValueSet [NHSNInfectionConditionCode](#) urn:oid:2.16.840.1.114222.4.11.3196 **DYNAMIC** (CONF:86-19895).

**Table 264: NHSNInfectionConditionCode**

Value Set: NHSNInfectionConditionCode urn:oid:2.16.840.1.114222.4.11.3196 (Clinical Focus: NHSN surveillance reporting: Infection condition being reported),(Data Element Scope: A coded observation value describing the infection condition.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3196/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3196/expansion</a>			
Code	Code System	Code System OID	Print Name
12463005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Infectious gastroenteritis (disorder)
128241005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Inflammatory disease of liver (disorder)
1601-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Breast abscess or mastitis
1602-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Myocarditis or pericarditis
1603-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Clinical sepsis
1604-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Deep incisional primary surgical site infection (SSI)
1605-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Deep incisional secondary surgical site infection (SSI)
1606-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Vertebral disc space infection
1607-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Ear or mastoid infection (otitis externa, otitis media, otitis interna, mastoiditis)
1608-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Eye infection, other than conjunctivitis
...			

**Figure 97: Infection Condition Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Infection Condition Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.135"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="1601-4"
    displayName="Breast abscess or mastitis"/>
</observation>
```

### 3.53 Infection Contributed to Death Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.136 (closed)]

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**Table 265: Infection Contributed to Death Observation Contexts**

Contained By:	Contains:
<a href="#">Death Observation</a> (optional)	

In some HAI Reports, this observation is required in a Death Observation if the patient died. To point to the observation of the infection that contributed to death, the value of the id in this template must be the same as the value of the id element in the Infection-type Observation.

**Table 266: Infection Contributed to Death Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.136)					
@classCode	1..1	SHALL		<a href="#">86-22164</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-22165</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-22166</a>	
@root	1..1	SHALL		<a href="#">86-22167</a>	2.16.840.1.113883.10.20.5.6.136
id	1..1	SHALL		<a href="#">86-22168</a>	
code	1..1	SHALL		<a href="#">86-22170</a>	
@code	1..1	SHALL	CS	<a href="#">86-22174</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28380</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-22172</a>	
@code	1..1	SHALL		<a href="#">86-22173</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-22164).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-22165).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22166) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.136" (CONF:86-22167).
4. **SHALL** contain exactly one [1..1] **id** (CONF:86-22168).
  - a. The value of the id **SHALL** be the same as the value of the id element in the Infection-type Observation (templateId 2.16.840.1.113883.10.20.5.6.139) (CONF:86-22169).
5. **SHALL** contain exactly one [1..1] **code** (CONF:86-22170).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:86-22174).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28380).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-22172).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-22173).

**Figure 98: Infection Contributed to Death Observation Example**

```
<!-- patient did die -->
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!--Death Observation template-->
  ...
  <!--Infection did not contribute to death -->
  <entryRelationship typeCode="CAUS" inversionInd="true" negationInd="true">
    <observation classCode="OBS" moodCode="EVN">
      <!-- HAI Infection Contributed to Death Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.136" />
      <id root="2.16.840.1.113883.3.117.1.1.5.2.1.1.5" extension="21987654321" />
      <code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION" />
      <statusCode code="completed" />
    </observation>
  </entryRelationship>
</observation>
```

### 3.54 Infection Indicator Organizer (V5)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.181:2019-04-01  
(closed)]

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Release 3, STU 4 - US Realm

**Table 267: Infection Indicator Organizer (V5) Contexts**

Contained By:	Contains:
<a href="#">Details Section in an Evidence of Infection (Dialysis) Report (V6)</a> (required)	<a href="#">IV Antifungal Start Clinical Statement</a> (required) <a href="#">IV Antibiotic Start Clinical Statement (V4)</a> (required) <a href="#">Positive Blood Culture Observation (V3)</a> (required) <a href="#">Pus, Redness, or Increased Swelling Observation (V2)</a> (required)

This organizer groups together four required infection indicators. An Evidence of Infection (Dialysis) Report is submitted when at least one is true. The infection indicators are recorded as facts associated with the patient, but without asserting a causal relationship to an infection.

The organizer's effectiveTime/low element represents the earliest date at which one of these indicators was observed. The NHSN protocol specifies that this date represents:

- For pus/redness/swelling, the symptom onset date
- For IV antibiotic or antifungal start, the first day the substance was administered as an outpatient
- For positive blood culture, the day the specimen was drawn.

**Table 268: Infection Indicator Organizer (V5) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.181:2019-04-01)					
@classCode	1..1	SHALL		<a href="#">4395-22222</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">4395-22223</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">4395-22224</a>	
@root	1..1	SHALL		<a href="#">4395-22225</a>	2.16.840.1.113883.10.20.5.6.181
@extension	1..1	SHALL		<a href="#">4395-30287</a>	2019-04-01
id	1..1	SHALL		<a href="#">4395-22226</a>	
@nullFlavor	1..1	SHALL		<a href="#">4395-22771</a>	NA
statusCode	1..1	SHALL		<a href="#">4395-22227</a>	
@code	1..1	SHALL		<a href="#">4395-22228</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">4395-22229</a>	
low	1..1	SHALL		<a href="#">4395-22230</a>	
component	1..1	SHALL		<a href="#">4395-22231</a>	
observation	1..1	SHALL		<a href="#">4395-22232</a>	<a href="#">Pus, Redness, or Increased Swelling Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.157:2019-04-01)</a>
component	1..1	SHALL		<a href="#">4395-22233</a>	
substanceAdministration	1..1	SHALL		<a href="#">4395-22234</a>	<a href="#">IV Antibiotic Start Clinical Statement (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.140:2019-04-01)</a>
component	1..1	SHALL		<a href="#">4395-22235</a>	
substanceAdministration	1..1	SHALL		<a href="#">4395-22236</a>	<a href="#">IV Antifungal Start Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.141)</a>
component	1..1	SHALL		<a href="#">4395-22237</a>	
observation	1..1	SHALL		<a href="#">4395-</a>	<a href="#">Positive Blood Culture</a>

XPath	Card.	Verb	Data Type	CONF#	Value
				<a href="#">30429</a>	<a href="#">Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.149:2019-04-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="CLUSTER" Cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4395-22222).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4395-22223).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-22224) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.181" (CONF:4395-22225).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30287).
4. **SHALL** contain exactly one [1..1] **id** (CONF:4395-22226).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:4395-22771).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4395-22227).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:4395-22228).
6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4395-22229).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:4395-22230).
7. **SHALL** contain exactly one [1..1] **component** (CONF:4395-22231) such that it
  - a. **SHALL** contain exactly one [1..1] [Pus, Redness, or Increased Swelling Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.157:2019-04-01) (CONF:4395-22232).
8. **SHALL** contain exactly one [1..1] **component** (CONF:4395-22233) such that it
  - a. **SHALL** contain exactly one [1..1] [IV Antibiotic Start Clinical Statement \(V4\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.140:2019-04-01) (CONF:4395-22234).
9. **SHALL** contain exactly one [1..1] **component** (CONF:4395-22235) such that it
  - a. **SHALL** contain exactly one [1..1] [IV Antifungal Start Clinical Statement](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.141) (CONF:4395-22236).
10. **SHALL** contain exactly one [1..1] **component** (CONF:4395-22237) such that it
  - a. **SHALL** contain exactly one [1..1] [Positive Blood Culture Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.149:2019-04-01) (CONF:4395-30429).

**Figure 99: Infection Indicator Organizer (V5) Example**

```
<organizer classCode="CLUSTER" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.5.6.181"
    extension="2019-04-01" />
  <id nullFlavor="NA" />
  <statusCode code="completed"/>
  <effectiveTime>
    <low value="20180404"/>
  </effectiveTime>
  <component>
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- HAI Pus, Redness, or Increased Swelling Observation (V2) templateId-->
      <templateId root="2.16.840.1.113883.10.20.5.6.157" extension="2019-04-01" />
      ...
    </observation>
  </component>
  <component>
    <substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="false">
      <!-- C-CDA Medication Activity templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <!-- HAI IV Antibiotic Start Clinical Statement (V4) templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.140"
        extension="2019-04-01"/>
      ...
    </substanceAdministration>
  </component>
  <component>
    <substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="false">
      <!-- C-CDA Medication Activity templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <!-- HAI IV Antifungal Start Clinical Statement templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.141"/>
      ...
    </substanceAdministration >
  </component>
  <component>
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- HAI Positive Blood Culture Observation (V3) templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.149"
        extension="2019-04-01" />
      ...
    </observation>
  </component>
  ...
</organizer>
```



### 3.55 Infection Present at the Time of Surgery Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.205 (closed)]

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Release 2, DSTU 1 - US Realm

**Table 269: Infection Present at the Time of Surgery Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Details Section in an SSI Report (V2)</a> (required)	

This template records whether or not an infection was present at the time that a surgical procedure was performed. It is based on the C-CDA Problem Observation template.

When an infection was present at the time that a surgical procedure was performed, set the value of @negationInd to false. When an infection was not present at the time that a surgical procedure was performed, set the value of @negationInd to true.

**Table 270: Infection Present at the Time of Surgery Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.205)					
@classCode	1..1	SHALL		<a href="#">1101-30257</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1101-30258</a>	EVN
@negationInd	1..1	SHALL		<a href="#">1101-30259</a>	
templateId	1..1	SHALL		<a href="#">1101-30299</a>	
@root	1..1	SHALL		<a href="#">1101-30300</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">1101-30261</a>	
@root	1..1	SHALL		<a href="#">1101-30262</a>	2.16.840.1.113883.10.20.5.6.205
id	1..1	SHALL		<a href="#">1101-30263</a>	
@nullFlavor	1..1	SHALL		<a href="#">1101-30264</a>	NA
code	1..1	SHALL		<a href="#">1101-30265</a>	
@code	1..1	SHALL		<a href="#">1101-30266</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1101-30267</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1101-30268</a>	
@code	1..1	SHALL		<a href="#">1101-30269</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">1101-30270</a>	
@code	1..1	SHALL		<a href="#">1101-30271</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 1237-7
@codeSystem	1..1	SHALL		<a href="#">1101-30272</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1101-30257).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:1101-30258).

4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:1101-30259).
  - a. If an infection was present at the time that a surgical procedure was performed, the value of **@negationInd** **SHALL** be false. If an infection was not present at the time that a surgical procedure was performed, the value of **@negationInd** **SHALL** be true (CONF:1101-30260).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1101-30299) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.4"** (CONF:1101-30300).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:1101-30261) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.5.6.205"** (CONF:1101-30262).
7. **SHALL** contain exactly one [1..1] **id** (CONF:1101-30263).
  - a. This **id** **SHALL** contain exactly one [1..1] **@nullFlavor="NA"** (CONF:1101-30264).
8. **SHALL** contain exactly one [1..1] **code** (CONF:1101-30265).
  - a. This **code** **SHALL** contain exactly one [1..1] **@code="ASSERTION"** (CONF:1101-30266).
  - b. This **code** **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1101-30267).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1101-30268).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code="completed"** (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1101-30269).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:1101-30270).
  - a. This **value** **SHALL** contain exactly one [1..1] **@code="1237-7"** Infection present at the time of surgery (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1101-30271).
  - b. This **value** **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.277"** (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1101-30272).

**Figure 100: Infection Present at Time of Surgery Observation Example**

```
<!--
  If an infection was present at the time that a surgical procedure
  was performed, the value of @negationInd SHALL be false.
  If an infection was not present at the time that a surgical
  procedure was performed, the value of @negationInd SHALL be true
-->
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4" />
  <!-- Infection Present at the Time of Surgery Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.205" />
  <id nullFlavor="NA" />
  <code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION" />
  <statusCode code="completed" />
  <value xsi:type="CD"
    code="1237-7"
    displayName="Infection present at the time of surgery"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN" />
</observation>
```

### 3.56 Infection Risk Factors Measurement Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.137 (closed)]

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**Table 271: Infection Risk Factors Measurement Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a BSI Report (V3)</a> (optional) <a href="#">Risk Factors Section in a LOS/Men Denominator</a> (required) <a href="#">Risk Factors Section in a LOS/Men Event (V2)</a> (required)	

This observation records the risk factor of birth weight.

The BSI report uses this observation. The NHSN protocol specifies which measurements are required for each report type. Those rules do not form part of the guide. The NHSNInfectionRiskFactorsCode value set table (included with the Infection Risk Factors Observation template) shows requirements at the time of publication.

**Table 272: Infection Risk Factors Measurement Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.137)					
@classCode	1..1	SHALL		<a href="#">86-19769</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-19770</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-19771</a>	false
templateId	1..1	SHALL		<a href="#">86-28247</a>	
@root	1..1	SHALL		<a href="#">86-28248</a>	2.16.840.1.113883.10.20.22.4.27
templateId	1..1	SHALL		<a href="#">86-19780</a>	
@root	1..1	SHALL		<a href="#">86-19781</a>	2.16.840.1.113883.10.20.5.6.137
id	1..1	SHALL		<a href="#">86-19782</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22759</a>	NA
code	1..1	SHALL		<a href="#">86-19772</a>	
@code	1..1	SHALL		<a href="#">86-19773</a>	364589006
@codeSystem	1..1	SHALL		<a href="#">86-28104</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">86-19774</a>	
@code	1..1	SHALL		<a href="#">86-19775</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">86-19899</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22760</a>	NA
value	1..1	SHALL	PQ	<a href="#">86-19776</a>	

1. Conforms to Vital Sign Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.27).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-19769).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-19770).
4. **SHALL** contain exactly one [1..1] @negationInd="false" (CONF:86-19771).
5. **SHALL** contain exactly one [1..1] templateId (CONF:86-28247) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.27" (CONF:86-28248).
6. **SHALL** contain exactly one [1..1] templateId (CONF:86-19780) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.137" (CONF:86-19781).
7. **SHALL** contain exactly one [1..1] id (CONF:86-19782).

- a. This id **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22759).
8. **SHALL** contain exactly one [1..1] **code** (CONF:86-19772).
  - a. This code **SHALL** contain exactly one [1..1] @code="364589006" Birth weight (CONF:86-19773).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28104).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-19774).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-19775).
10. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:86-19899).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22760).
11. **SHALL** contain exactly one [1..1] **value** with @xsi:type="PQ" (CONF:86-19776).

**Figure 101: Infection Risk Factors Measurement Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Vital Sign Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.27"/>
  <!-- HAI Infection Risk Factors Measurement Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.137"/>
  <id nullFlavor="NA"/>
  <code code="364589006"
    codeSystem="2.16.840.1.113883.6.96"
    displayName="Birth weight"/>
  <statusCode code="completed"/>
  <effectiveTime nullFlavor="NA"/>
  <value xsi:type="PQ" value="700" unit="g"/>
</observation>
```

### 3.57 Infection Risk Factors Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.138 (closed)]

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**Table 273: Infection Risk Factors Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a BSI Report (V3)</a> (required) <a href="#">Risk Factors Section in a LOS/Men Event (V2)</a> (optional)	<a href="#">Device Insertion Time and Location Procedure</a> (optional)

This observation records the presence of infection risk factors. See also the Infection Risk Factors Measurement Observation.

The NHSNInfectionRiskFactorsCode value set includes infection risk factors for all reports in this guide. The NHSN protocol specifies which risk factors are to be recorded in each report type. Those rules do not form part of the guide.

If the risk factor is present, set the value of @negationInd to false. If the risk factor is not present, set the value of @negationInd to true.

**Table 274: Infection Risk Factors Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.138)					
@classCode	1..1	SHALL		<a href="#">86-19800</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-19801</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-19802</a>	
templateId	1..1	SHALL		<a href="#">86-28249</a>	
@root	1..1	SHALL		<a href="#">86-28250</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-19814</a>	
@root	1..1	SHALL		<a href="#">86-19816</a>	2.16.840.1.113883.10.20.5.6.138
id	1..1	SHALL		<a href="#">86-19817</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22761</a>	NA
code	1..1	SHALL		<a href="#">86-19803</a>	
@code	1..1	SHALL		<a href="#">86-19804</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28381</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-19805</a>	
@code	1..1	SHALL		<a href="#">86-19806</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-19807</a>	urn:oid:2.16.840.1.113883.13.6 (NHSNInfectionRiskFactorsCode)
entryRelationship	0..1	MAY		<a href="#">86-19809</a>	
@typeCode	1..1	SHALL		<a href="#">86-19810</a>	REFR
@inversionInd	1..1	SHALL		<a href="#">86-19811</a>	true
procedure	1..1	SHALL		<a href="#">86-19812</a>	<a href="#">Device Insertion Time and Location Procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.122)</a>

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).

2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-19800).
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-19801).
4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:86-19802).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28249) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.4"** (CONF:86-28250).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-19814) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.5.6.138"** (CONF:86-19816).
7. **SHALL** contain exactly one [1..1] **id** (CONF:86-19817).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor="NA"** (CONF:86-22761).
8. **SHALL** contain exactly one [1..1] **code** (CONF:86-19803).
  - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** Assertion (CONF:86-19804).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28381).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-19805).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-19806).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"**, where the code **SHALL** be selected from ValueSet [NHSNInfectionRiskFactorsCode](#) urn:oid:2.16.840.1.113883.13.6 **DYNAMIC** (CONF:86-19807).
11. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:86-19809).
  - a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@typeCode="REFR"** (CONF:86-19810).
  - b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:86-19811).
  - c. The entryRelationship, if present, **SHALL** contain exactly one [1..1] [Device Insertion Time and Location Procedure](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.122) (CONF:86-19812).



**Table 275: NHSNInfectionRiskFactorsCode**

Value Set: NHSNInfectionRiskFactorsCode urn:oid:2.16.840.1.113883.13.6 (Clinical Focus: NHSN surveillance reporting: risk factors for bloodstream infection),(Data Element Scope: A coded observation value describing the infection risk factors.),(Inclusion Criteria: ),(Exclusion Criteria: )			
This value set was imported on 10/14/2020 with a version of Latest.			
Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.6/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.6/expansion</a>			
Code	Code System	Code System OID	Print Name
1002-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Central line
1003-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Permanent central line
1005-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Temporary central line
1006-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Central line including umbilical catheter

**Figure 102: Infection Risk Factors Observation Example**

```

<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Infection Risk Factors Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.138"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="1003-3"
    displayName="permanent central line"/>

  <entryRelationship typeCode="REFR" inversionInd="true">
    <procedure classCode="PROC" moodCode="EVN">
      <!-- C-CDA Procedure Activity Procedure templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.14" />
      <!-- HAI Device Insertion Time and Location Procedure templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.122" />
      ...
    </procedure>
  </entryRelationship>
</observation>

```

### 3.58 Infection-Type Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.139 (closed)]

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**Table 276: Infection-Type Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Details Section in a BSI Report</a> (required)	<a href="#">Bloodstream Infection Evidence Type Observation</a> (optional)
<a href="#">Infection Details Section in a UTI Report</a> (required)	<a href="#">Secondary Bloodstream Infection Observation</a> (optional)
<a href="#">Infection Details Section in an SSI Report (V2)</a> (required)	<a href="#">Infection Condition Observation</a> (optional)
<a href="#">Infection Details Section in a VAE Report</a> (required)	<a href="#">Occasion of HAI Detection Observation</a> (optional)
<a href="#">Infection Details in Late Onset Sepsis Report</a> (required)	<a href="#">Criteria of Diagnosis Organizer</a> (required)

The Infection-Type Observation is used in all infection reports. It is an assertion of the infection type, and contains entryRelationships to record the “criteria”—the information used to arrive at a diagnosis of the infection type.

The value of the id element must be globally unique and need not be an identifier used outside the document. Its function within the document is to identify this infection as being the same as that recorded in the Infection Contributed to Death Observation, if present.

**Table 277: Infection-Type Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139)					
@classCode	1..1	SHALL		<a href="#">86-21181</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-21182</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-21183</a>	false
templateId	1..1	SHALL		<a href="#">86-28251</a>	
@root	1..1	SHALL		<a href="#">86-28252</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-21239</a>	
@root	1..1	SHALL		<a href="#">86-21240</a>	2.16.840.1.113883.10.20.5.6.139
id	1..1	SHALL		<a href="#">86-21184</a>	
code	1..1	SHALL		<a href="#">86-21185</a>	
@code	1..1	SHALL		<a href="#">86-21186</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28186</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-21187</a>	
@code	1..1	SHALL		<a href="#">86-21188</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">86-21189</a>	
low	1..1	SHALL		<a href="#">86-28190</a>	
value	1..1	SHALL	CD	<a href="#">86-21190</a>	urn:oid:2.16.840.1.113883.13.20 (NHSNInfectionTypeCode)
entryRelationship	1..1	SHALL		<a href="#">86-21192</a>	
@typeCode	1..1	SHALL		<a href="#">86-21193</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SPRT
organizer	1..1	SHALL		<a href="#">86-21194</a>	<a href="#">Criteria of Diagnosis Organizer (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.180)</a>
entryRelationship	0..1	MAY		<a href="#">86-23217</a>	
@typeCode	1..1	SHALL		<a href="#">86-23218</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">86-23219</a>	<a href="#">Infection Condition Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.135)</a>
entryRelationship	0..1	MAY		<a href="#">86-23221</a>	
@typeCode	1..1	SHALL		<a href="#">86-23222</a>	urn:oid:2.16.840.1.113883.5.1

XPath	Card.	Verb	Data Type	CONF#	Value
					002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">86-23223</a>	<a href="#">Secondary Bloodstream Infection Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.160)</a>
entryRelationship	0..1	MAY		<a href="#">86-23225</a>	
@typeCode	1..1	SHALL		<a href="#">86-23226</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">86-23227</a>	<a href="#">Bloodstream Infection Evidence Type Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.114)</a>
entryRelationship	0..1	MAY		<a href="#">86-23229</a>	
@typeCode	1..1	SHALL		<a href="#">86-23230</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">86-23231</a>	<a href="#">Occasion of HAI Detection Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.144)</a>

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21181).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21182).
4. **SHALL** contain exactly one [1..1] @negationInd="false" (CONF:86-21183).
5. **SHALL** contain exactly one [1..1] templateId (CONF:86-28251) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28252).
6. **SHALL** contain exactly one [1..1] templateId (CONF:86-21239) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.139" (CONF:86-21240).
7. **SHALL** contain exactly one [1..1] id (CONF:86-21184).
8. **SHALL** contain exactly one [1..1] code (CONF:86-21185).
  - a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-21186).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28186).

9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-21187).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-21188).
10. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:86-21189).
  - a. This **effectiveTime** **SHALL** contain exactly one [1..1] **low** (CONF:86-28190).
11. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"**, where the code **SHALL** be selected from ValueSet [NHSNInfectionTypeCode](#) urn:oid:2.16.840.1.113883.13.20 **DYNAMIC** (CONF:86-21190).
12. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:86-21192) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="SPRT"** Supports (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:86-21193).
  - b. **SHALL** contain exactly one [1..1] [Criteria of Diagnosis Organizer](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.180) (CONF:86-21194).
13. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:86-23217) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:86-23218).
  - b. **SHALL** contain exactly one [1..1] [Infection Condition Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.135) (CONF:86-23219).
  - c. If the report is a Ventilator Associated Event (VAE) Report, an HAI Surgical Site Infection Report (SSI), an HAI Urinary Tract Infection Numerator Report (UTI) or a Late Onset Sepsis/Meningitis Event (LOS) Report then an **entryRelationship** element **SHALL** be present containing an Infection Condition Observation (CONF:86-23220).
14. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:86-23221) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:86-23222).
  - b. **SHALL** contain exactly one [1..1] [Secondary Bloodstream Infection Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.160) (CONF:86-23223).
  - c. If the report is a Ventilator Associated Event (VAE) Report, an HAI Surgical Site Infection Report (SSI) or an HAI Urinary Tract Infection Numerator Report (UTI) then, an **entryRelationship** element **SHALL** be present containing a Secondary Bloodstream Infection Observation (CONF:86-23224).
15. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:86-23225) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:86-23226).
  - b. **SHALL** contain exactly one [1..1] [Bloodstream Infection Evidence Type Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.114) (CONF:86-23227).
  - c. If the report is a BSI Report, an **entryRelationship** element **SHALL** be present containing a Bloodstream Infection Evidence Type Observation (CONF:86-23228).

16. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:86-23229) such that it
- SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:86-23230).
  - SHALL** contain exactly one [1..1] Occasion of HAI Detection Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.144) (CONF:86-23231).
  - If the report is an SSI Report, an entryRelationship element **SHALL** be present containing an Occasion of HAI Detection Observation (CONF:86-23232).

**Table 278: NHSNInfectionTypeCode**

Value Set: NHSNInfectionTypeCode urn:oid:2.16.840.1.113883.13.20 (Clinical Focus: NHSN surveillance reporting: Type of infection for reporting NHSN healthcare-associated events),(Data Element Scope: A coded observation value describing the type of infection.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.20/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.20/expansion</a>			
Code	Code System	Code System OID	Print Name
128116006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Infectious disease of nervous system (disorder)
128402005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Infectious disease of cardiovascular system (disorder)
1792-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Multi-drug resistant organism (MDRO) infection
1795-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	C. difficile-associated disease (CDAD) infection
1796-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Reproductive tract infection
1797-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Infection of the ear, eyes, nose, or throat
1798-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Bone or joint infection
19824006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Infection of skin and/or subcutaneous tissue (disorder)
2340-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Ventilator-associated event (VAE)
276674008	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Neonatal meningitis (disorder)
...			

**Figure 103: Infection-Type Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Infection Type Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.139"/>
  <!-- UUID for the infection being reported-->
  <id root="2.16.840.1.113883.3.117.1.1.5.2.1.1.5" extension="21987654321"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="completed"/>
  <effectiveTime>
    <low value="20080807" />
  </effectiveTime>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"
    code="431193003"
    displayName="Blood Stream Infection"/>
  <!-- Criteria of Diagnosis Organizer -->
  <entryRelationship typeCode="SPRT">
    <organizer classCode="CLUSTER" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.5.6.180"/>
      ...
    </organizer>
  </entryRelationship>
  ...
  <!-- If infection report is NOT a BSI Report, the following two observations are
    required. If an SSI Report, an Occasion of HAI Detection Observation is
    ALSO required.
    If a BSI Report, a Bloodstream Infection Evidence Type Observation is required. -->
  <entryRelationship typeCode="REFR">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- HAI Infection Condition Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.135"/>
      ...
    </observation>
  </entryRelationship>

  <entryRelationship typeCode="REFR">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- HAI Secondary Bloodstream Infection Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.160"/>
      ...
    </observation>
  </entryRelationship>
</observation>
```

3.59 Infection-Type Observation in an OPC SSI Event

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.263:2019-04-01 (closed)]

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Table 279: Infection-Type Observation in an OPC SSI Event Contexts

Contained By:	Contains:
<a href="#">Infection Details Section in an OPC SSI Report</a> (required)	<a href="#">Infection Condition Observation</a> (required) <a href="#">Criteria of Diagnosis Organizer</a> (required) <a href="#">SSI Detection Method</a> (required)

The Infection-Type Observation is used in OPC SSI infection reports. It is an assertion of the infection type, and contains entryRelationships to record the “criteria”—the information used to arrive at a diagnosis of the infection type.



**Table 280: Infection-Type Observation in an OPC SSI Event Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.263:2019-04-01)					
@classCode	1..1	SHALL		<a href="#">4395-30865</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4395-30866</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">4395-30867</a>	false
templateId	1..1	SHALL		<a href="#">4395-30855</a>	
@root	1..1	SHALL		<a href="#">4395-30875</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">4395-30864</a>	
@root	1..1	SHALL		<a href="#">4395-30884</a>	2.16.840.1.113883.10.20.5.6.263
@extension	1..1	SHALL		<a href="#">4395-30885</a>	2019-04-01
id	1..1	SHALL		<a href="#">4395-30868</a>	
code	1..1	SHALL		<a href="#">4395-30850</a>	
@code	1..1	SHALL		<a href="#">4395-30869</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">4395-30870</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">4395-30851</a>	
@code	1..1	SHALL		<a href="#">4395-30871</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">4395-30852</a>	
low	1..1	SHALL		<a href="#">4395-30872</a>	
value	1..1	SHALL	CD	<a href="#">4395-30873</a>	urn:oid:2.16.840.1.113883.13.20 (NHSNInfectionTypeCode)
entryRelationship	1..1	SHALL		<a href="#">4395-30853</a>	
@typeCode	1..1	SHALL		<a href="#">4395-30874</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SPRT
organizer	1..1	SHALL		<a href="#">4395-30854</a>	<a href="#">Criteria of Diagnosis Organizer</a> <a href="#">(identifier: urn:oid:2.16.840.1.113883.10.</a>

XPath	Card.	Verb	Data Type	CONF#	Value
					<a href="#">20.5.6.180</a>
entryRelationship	1..1	SHALL		<a href="#">4395-30856</a>	
@typeCode	1..1	SHALL		<a href="#">4395-30876</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">4395-30857</a>	<a href="#">Infection Condition Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.135)</a>
entryRelationship	1..1	SHALL		<a href="#">4395-30862</a>	
@typeCode	1..1	SHALL		<a href="#">4395-30882</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">4395-30863</a>	<a href="#">SSI Detection Method (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.261:2019-04-01)</a>

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4395-30865).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4395-30866).
4. **SHALL** contain exactly one [1..1] @negationInd="false" (CONF:4395-30867).
5. **SHALL** contain exactly one [1..1] templateId (CONF:4395-30855) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:4395-30875).
6. **SHALL** contain exactly one [1..1] templateId (CONF:4395-30864) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.263" (CONF:4395-30884).
  - b. **SHALL** contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30885).
7. **SHALL** contain exactly one [1..1] id (CONF:4395-30868).
8. **SHALL** contain exactly one [1..1] code (CONF:4395-30850).
  - a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:4395-30869).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4395-30870).
9. **SHALL** contain exactly one [1..1] statusCode (CONF:4395-30851).

- a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:4395-30871).
- 10. **SHALL** contain exactly one [1..1] effectiveTime (CONF:4395-30852).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] low (CONF:4395-30872).
- 11. **SHALL** contain exactly one [1..1] value with @xsi:type="CD", where the code **SHALL** be selected from ValueSet [NHSNInfectionTypeCode](#) urn:oid:2.16.840.1.113883.13.20 **DYNAMIC** (CONF:4395-30873).
- 12. **SHALL** contain exactly one [1..1] entryRelationship (CONF:4395-30853) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SPRT" Supports (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:4395-30874).
  - b. **SHALL** contain exactly one [1..1] [Criteria of Diagnosis Organizer](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.180) (CONF:4395-30854).
- 13. **SHALL** contain exactly one [1..1] entryRelationship (CONF:4395-30856) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4395-30876).
  - b. **SHALL** contain exactly one [1..1] [Infection Condition Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.135) (CONF:4395-30857).
- 14. **SHALL** contain exactly one [1..1] entryRelationship (CONF:4395-30862) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4395-30882).
  - b. **SHALL** contain exactly one [1..1] [SSI Detection Method](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.261:2019-04-01) (CONF:4395-30863).

**Figure 104: Infection-Type Observation in an OPC SSI Event Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- [C-CDA R1.1] Problem Observation -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4" />
  <!-- [HAI R1] Infection-Type Observation in an OPC SSI Event-->
  <templateId root="2.16.840.1.113883.10.20.5.6.263" extension="2019-04-01"/>
  <id root="2.16.840.1.113883.3.117.1.1.5.2.1.1.5" extension="21987654321" />
  <code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION" />
  <statusCode code="completed" />
  <!-- Record the date when the first element used to meet the SSI infection
    criterion occurred for the first time during the surveillance period.
    Synonyms: infection date, date of infection. -->
  <effectiveTime>
    <low value="20180806" />
  </effectiveTime>
  <!-- Infection Type -->
  <value xsi:type="CD" codeSystem="2.16.840.1.113883.6.96"
    code="433202001"
    displayName="Surgical Site Infection" />
  <!-- [HAI R1] Criteria of Diagnosis Organizer -->
  <entryRelationship typeCode="SPRT">
    <organizer classCode="CLUSTER" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.5.6.180" />
      ...
    </organizer>
    <!-- End of Criteria of Diagnosis Organizer -->
  </entryRelationship>
  <!-- Infection Condition Observation (SSI Level)-->
  <entryRelationship typeCode="REFR">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- [C-CDA R1.1] Problem Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4" />
      <!-- [HAI R1] Infection Condition Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.135" />
      ...
    </observation>
  </entryRelationship>
  <!-- SSI Detection Method -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- [HAI R3D4] SSI Detection Method -->
      <templateId root="2.16.840.1.113883.10.20.5.6.261" extension="2019-04-01" />
      ...
    </observation>
  </entryRelationship>
</observation>
```

### 3.60 Inpatient Psychiatric (IPF) Unit in Facility

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.272:2022-04-01 (closed)]

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**Table 281: Inpatient Psychiatric (IPF) Unit in Facility Contexts**

Contained By:	Contains:
<a href="#">Summary Data Section (POM) (V3)</a> (optional)	

This observation records whether the facility contains a CMS-certified Inpatient Psychiatric (IPF) unit. When the facility does contain an IPF unit, set the value of @negationInd to false. When the facility does not contain an IPF unit, set the value of @negationInd to true.

**Table 282: Inpatient Psychiatric (IPF) Unit in Facility Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.272:2022-04-01)					
@classCode	1..1	SHALL		<a href="#">4523-31019</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4523-31020</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">4523-31021</a>	
templateId	1..1	SHALL		<a href="#">4523-31008</a>	
@root	1..1	SHALL		<a href="#">4523-31012</a>	2.16.840.1.113883.10.20.5.6.272
@extension	1..1	SHALL		<a href="#">4523-31013</a>	2022-04-01
code	1..1	SHALL		<a href="#">4523-31009</a>	
@code	1..1	SHALL		<a href="#">4523-31014</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">4523-31015</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">4523-31011</a>	
@code	1..1	SHALL		<a href="#">4523-31018</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">4523-31010</a>	
@code	1..1	SHALL		<a href="#">4523-31016</a>	1265-8
@codeSystem	1..1	SHALL		<a href="#">4523-31017</a>	urn:oid:2.16.840.1.113883.6.259 (HSLOC) = 2.16.840.1.113883.6.259

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4523-31019).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4523-31020).

When the facility does contain an IPF unit, set the value of **@negationInd** to false. When the facility does not contain an IPF unit, set the value of **@negationInd** to true.

3. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:4523-31021).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4523-31008) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.272" (CONF:4523-31012).

- b. **SHALL** contain exactly one [1..1] **@extension**="2022-04-01" (CONF:4523-31013).
- 5. **SHALL** contain exactly one [1..1] **code** (CONF:4523-31009).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:4523-31014).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4523-31015).
- 6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4523-31011).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4523-31018).
- 7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:4523-31010).
  - a. This value **SHALL** contain exactly one [1..1] **@code**="1265-8" Inpatient Psychiatric Facility Unit(s) (CONF:4523-31016).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.259" (CodeSystem: HSLOC urn:oid:2.16.840.1.113883.6.259) (CONF:4523-31017).

**Figure 105: Inpatient Psychiatric (IPF) Unit in Facility**

```

<!-- When the facility does contain an IPF unit, set the value of @negationInd to false.
When the facility does not contain an IPF unit, set the value of @negationInd to true. -->
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- Inpatient Psychiatric (IPF) Unit in Facility -->
  <templateId root="2.16.840.1.113883.10.20.5.6.272"
    extension="2022-04-01"/>
  <code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION" />
  <statusCode code="completed" />
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.259"
    codeSystemName="HSLOC"
    code="1265-8"
    displayName="Inpatient Psychiatric Facility Unit(s)" />
</observation>

```

### 3.61 Inpatient Rehabilitation (IRF) Unit in Facility

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.271:2022-04-01 (closed)]

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**Table 283: Inpatient Rehabilitation (IRF) Unit in Facility Contexts**

Contained By:	Contains:
<a href="#">Summary Data Section (POM) (V3)</a> (optional)	

This observation records whether the facility contains a CMS-certified Inpatient Rehabilitation (IRF) unit.

When the facility does contain an IRF unit, set the value of @negationInd to false. When the facility does not contain an IRF unit, set the value of @negationInd to true.

**Table 284: Inpatient Rehabilitation (IRF) Unit in Facility Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.271:2022-04-01)					
@classCode	1..1	SHALL		<a href="#">4523-31004</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4523-31005</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">4523-31007</a>	
templateId	1..1	SHALL		<a href="#">4523-30994</a>	
@root	1..1	SHALL		<a href="#">4523-30998</a>	2.16.840.1.113883.10.20.5.6.271
@extension	1..1	SHALL		<a href="#">4523-30999</a>	2022-04-01
code	1..1	SHALL		<a href="#">4523-30995</a>	
@code	1..1	SHALL		<a href="#">4523-31000</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">4523-31001</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">4523-30997</a>	
@code	1..1	SHALL		<a href="#">4523-31006</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">4523-30996</a>	
@code	1..1	SHALL		<a href="#">4523-31002</a>	1264-1
@codeSystem	1..1	SHALL		<a href="#">4523-31003</a>	urn:oid:2.16.840.1.113883.6.259 (HSLOC) = 2.16.840.1.113883.6.259

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4523-31004).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4523-31005).

When the facility does contain an IRF unit, set the value of @negationInd to false. When the facility does not contain an IRF unit, set the value of @negationInd to true.

3. **SHALL** contain exactly one [1..1] @negationInd (CONF:4523-31007).
4. **SHALL** contain exactly one [1..1] templateId (CONF:4523-30994) such that it



- a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.271" (CONF:4523-30998).
  - b. **SHALL** contain exactly one [1..1] @extension="2022-04-01" (CONF:4523-30999).
5. **SHALL** contain exactly one [1..1] code (CONF:4523-30995).
  - a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:4523-31000).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4523-31001).
6. **SHALL** contain exactly one [1..1] statusCode (CONF:4523-30997).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4523-31006).
7. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:4523-30996).
  - a. This value **SHALL** contain exactly one [1..1] @code="1264-1" Inpatient Rehabilitation Facility Unit(s) (CONF:4523-31002).
  - b. This value **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.259" (CodeSystem: HSLOC urn:oid:2.16.840.1.113883.6.259) (CONF:4523-31003).

**Figure 106: Inpatient Rehabilitation (IRF) Unit in Facility**

```
<!-- When the facility does contain an IRF unit, set the value of @negationInd to false.
When the facility does not contain an IRF unit, set the value of @negationInd to true. -->
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- Inpatient Rehabilitation (IRF) Unit in Facility -->
  <templateId root="2.16.840.1.113883.10.20.5.6.271"
    extension="2022-04-01"/>
  <code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION" />
  <statusCode code="completed" />
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.259"
    codeSystemName="HSLOC"
    code="1264-1"
    displayName="Inpatient Rehabilitation Facility Unit(s)" />
</observation>
```

### 3.62 Interpreter Needed Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.300:2024-05-01 (closed)]

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**Table 285: Interpreter Needed Observation Contexts**

Contained By:	Contains:
<a href="#">NHSN Social History Section (V4)</a> (required)	

This observation records whether the patient needs or wants an interpreter to communicate with a doctor or health care staff.

If the patient needs an interpreter, set the value of @negationInd to false. If the patient does not need an interpreter, set the value of @negationInd to true. If it is not known whether or not the patient needs an interpreter, set nullFlavor="UNK", if the patient declines to respond set nullFlavor="ASKU".

**Table 286: Interpreter Needed Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.300:2024-05-01)					
@nullFlavor	0..1	MAY		<a href="#">5554-31120</a>	urn:oid:2.16.840.1.113762.1.4.1021.102 (Unknown or refused to answer)
@classCode	1..1	SHALL		<a href="#">5554-31054</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">5554-31055</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..1	SHOULD		<a href="#">5554-31056</a>	
templateId	1..1	SHALL		<a href="#">5554-31044</a>	
@root	1..1	SHALL		<a href="#">5554-31052</a>	2.16.840.1.113883.10.20.5.6.300
@extension	1..1	SHALL		<a href="#">5554-31053</a>	2024-05-01
code	1..1	SHALL		<a href="#">5554-31041</a>	
@code	1..1	SHALL		<a href="#">5554-31047</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">5554-31048</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">5554-31042</a>	
@code	1..1	SHALL		<a href="#">5554-31049</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">5554-31043</a>	
@code	1..1	SHALL	CS	<a href="#">5554-31050</a>	54588-9
@codeSystem	1..1	SHALL		<a href="#">5554-31051</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1

1. **MAY** contain zero or one [0..1] @nullFlavor, which **SHALL** be selected from ValueSet [Unknown or refused to answer](#) urn:oid:2.16.840.1.113762.1.4.1021.102 **DYNAMIC** (CONF:5554-31120).

2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:5554-31054).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:5554-31055).

If the person needs an interpreter, set the value of **@negationInd** to false. If the person does not need an interpreter, set the value of **@negationInd** to true.

4. **SHOULD** contain zero or one [0..1] **@negationInd** (CONF:5554-31056).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:5554-31044) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.300" (CONF:5554-31052).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2024-05-01" (CONF:5554-31053).
6. **SHALL** contain exactly one [1..1] **code** (CONF:5554-31041).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:5554-31047).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:5554-31048).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:5554-31042).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:5554-31049).
8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:5554-31043).
  - a. This value **SHALL** contain exactly one [1..1] **@code**="54588-9" Interpreter needed (CONF:5554-31050).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:5554-31051).
9. One of **@negationInd** or **@nullFlavor** (but not both) must be present (CONF:5554-31121).

**Figure 107: Interpreter Needed Observation Example**

```
<!-- This observation records whether the patient needs or wants an interpreter to
communicate with a doctor or health care staff.
If the person needs an interpreter, set the value of @negationInd to false.
If the person does not need an interpreter, set the value of @negationInd to true.
If it is not known whether or not the patient needs an interpreter, set
nullFlavor="UNK".
If the patient declines to respond set nullFlavor="ASKU" -->
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- [HAI R4STU3] Interpreter Needed Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.300" extension="2024-05-01" />
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
  <statusCode code="completed" />
  <value xsi:type="CD" code="54588-9"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="Interpreter needed" />
</observation>
```

### 3.63 Interpreter Used by Patient This Encounter Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.301:2024-05-01  
(closed)]

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STU 3 - US Realm

**Table 287: Interpreter Used by Patient This Encounter Observation Contexts**

Contained By:	Contains:
<a href="#">NHSN Social History Section (V4)</a> (required)	

This observation records whether the patient used an interpreter to communicate with a doctor or health care staff in this encounter.

If the person did use an interpreter, set the value of @negationInd to false. If the person did not use an interpreter, set the value of @negationInd to true.

**Table 288: Interpreter Used by Patient This Encounter Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.301:2024-05-01)					
@classCode	1..1	SHALL		<a href="#">5554-31074</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">5554-31075</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">5554-31076</a>	
templateId	1..1	SHALL		<a href="#">5554-31064</a>	
@root	1..1	SHALL		<a href="#">5554-31072</a>	2.16.840.1.113883.10.20.5.6.301
@extension	1..1	SHALL		<a href="#">5554-31073</a>	2024-05-01
code	1..1	SHALL		<a href="#">5554-31061</a>	
@code	1..1	SHALL		<a href="#">5554-31067</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">5554-31068</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">5554-31062</a>	
@code	1..1	SHALL		<a href="#">5554-31069</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">5554-31063</a>	
@code	1..1	SHALL	CS	<a href="#">5554-31070</a>	314431000
@codeSystem	1..1	SHALL		<a href="#">5554-31071</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:5554-31074).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:5554-31075).

If the person did use an interpreter, set the value of @negationInd to false. If the person did not use an interpreter, set the value of @negationInd to true.

3. **SHALL** contain exactly one [1..1] @negationInd (CONF:5554-31076).
4. **SHALL** contain exactly one [1..1] templateId (CONF:5554-31064) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.301" (CONF:5554-31072).

- b. **SHALL** contain exactly one [1..1] **@extension**="2024-05-01" (CONF:5554-31073).
- 5. **SHALL** contain exactly one [1..1] **code** (CONF:5554-31061).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:5554-31067).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:5554-31068).
- 6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:5554-31062).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:5554-31069).
- 7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:5554-31063).
  - a. This value **SHALL** contain exactly one [1..1] **@code**="314431000" Interpreter present (finding) (CONF:5554-31070).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:5554-31071).

**Figure 108: Interpreter Used by Patient This Encounter Observation Example**

```
<!-- This observation records whether the patient used an interpreter to communicate
      with a doctor or health care staff in this encounter.
      If the person did use an interpreter, set the value of @negationInd to false.
      If the person did not use an interpreter, set the value of @negationInd to true. -->
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- [HAI R4STU3] Interpreter Used by Patient This Encounter Observation -->
  <templateId extension="2024-05-01" root="2.16.840.1.113883.10.20.5.6.301" />
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
  <statusCode code="completed" />
  <value xsi:type="CD" code="314431000"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"
    displayName="Interpreter present (finding)" />
</observation>
```

### 3.64 ISBT Product Code Summary Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.238:2016-08-01 (closed)]

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**Table 289: ISBT Product Code Summary Observation (V2) Contexts**

Contained By:	Contains:
<a href="#">Blood Product Usage Summary Observation (V2)</a> (optional) <a href="#">Pathogen Reduced Apheresis Platelet Usage Summary Observation</a> (optional)	

This observation represents the number of units transfused, aliquots transfused, or total discards for each group of blood product split out by type, collection method, and modification or pathogen-reduction methodology, broken down by ISBT (International Society for Blood Transfusion) Product Code.

**Table 290: ISBT Product Code Summary Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.238:2016-08-01)					
@classCode	1..1	SHALL		<a href="#">3247-30724</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">3247-30725</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">3247-30716</a>	
@root	1..1	SHALL		<a href="#">3247-30719</a>	2.16.840.1.113883.10.20.5.6.238
@extension	1..1	SHALL		<a href="#">3247-30720</a>	2016-08-01
code	1..1	SHALL		<a href="#">3247-30717</a>	
statusCode	1..1	SHALL		<a href="#">3247-30718</a>	
@code	1..1	SHALL		<a href="#">3247-30722</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	INT	<a href="#">3247-30723</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3247-30724).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3247-30725).

3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3247-30716) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.238" (CONF:3247-30719).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2016-08-01" (CONF:3247-30720).

The value sets bound to the code element can be sourced from NHSN.

4. **SHALL** contain exactly one [1..1] **code** (CONF:3247-30717).
  - a. If the product specified in the containing Blood Product Usage Summary Observation is Whole Blood (3467-8, 3468-6, 3469-4), then valueSet NHSN Whole Blood Total (urn:oid:2.16.840.1.114222.4.11.7292) **SHALL** be used (CONF:3247-30726).
  - b. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Whole Blood Derived/Not irradiated or Leukocyte Reduced (3471-0, 3472-8, 3473-6), then valueSet NHSN Red Blood Cells/Whole Blood Derived/Not Irradiated or Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7294) **SHALL** be used (CONF:3247-30727).
  - c. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Whole Blood Derived/Irradiated (3403-3, 3404-1, 3474-4), then valueSet NHSN Red Blood Cells/Whole Blood Derived/Irradiated (urn:oid:2.16.840.1.114222.4.11.7295) **SHALL** be used (CONF:3247-30765).
  - d. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Whole Blood Derived/Irradiated and Leukocyte Reduced (3407-4, 3408-2, 3476-9), then valueSet NHSN Red Blood Cells/Whole Blood Derived/Irradiated and Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7297) **SHALL** be used (CONF:3247-30766).
  - e. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Apheresis/Not Irradiated or Leukocyte Reduced (3478-5, 3479-3, 3480-1), then valueSet NHSN Red Blood Cells/Apheresis/Not Irradiated or Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7299) **SHALL** be used (CONF:3247-30768).
  - f. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Apheresis/Irradiated (3411-6, 3412-4, 3481-9), then valueSet NHSN Red Blood Cells/Apheresis/Irradiated (urn:oid:2.16.840.1.114222.4.11.7300) **SHALL** be used (CONF:3247-30742).
  - g. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Apheresis/Leukocyte Reduced (3413-2, 3414-0, 3482-7), then valueSet NHSN Red Blood Cells/Apheresis/Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7301) **SHALL** be used (CONF:3247-30743).
  - h. If the product specified in the containing Blood Product Usage Summary Observation is Plasma/Apheresis/Riboflavin-Treated (3535-2, 3536-0, 3537-8), then valueSet NHSN Plasma/Apheresis/Riboflavin-Treated (urn:oid:2.16.840.1.114222.4.11.7327) **SHALL** be used (CONF:3247-30744).
  - i. If the product specified in the containing Blood Product Usage Summary Observation is Plasma/Apheresis/Psoralen-Treated (3532-9, 3533-7, 3534-5), then valueSet NHSN Plasma/Apheresis/Psoralen-Treated (urn:oid:2.16.840.1.114222.4.11.7326) **SHALL** be used (CONF:3247-30745).



- j. If the product specified in the containing Blood Product Usage Summary Observation is Plasma/Whole Blood Derived/Riboflavin-Treated (3526-1, 3527-9, 3528-7), then valueSet NHSN Plasma/Whole Blood Derived/Riboflavin-Treated (urn:oid:2.16.840.1.114222.4.11.7324) **SHALL** be used (CONF:3247-30746).
- k. If the product specified in the containing Blood Product Usage Summary Observation is Plasma/Whole Blood Derived/Psoralein-Treated (3523-8, 3524-6, 3525-3), then valueSet NHSN Plasma/Whole Blood Derived/Psoralein-Treated (urn:oid:2.16.840.1.114222.4.11.7323) **SHALL** be used (CONF:3247-30747).
- l. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Riboflavin-Treated (3517-0, 3518-8, 3519-6 ), then valueSet NHSN Platelets/Apheresis/Riboflavin-Treated (urn:oid:2.16.840.1.114222.4.11.7321) **SHALL** be used (CONF:3247-30748).
- m. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Psoralein-Treated (3514-7, 3515-4, 3516-2), then valueSet NHSN Platelets/Apheresis/Psoralein-Treated (urn:oid:2.16.840.1.114222.4.11.7320) **SHALL** be used (CONF:3247-30749).
- n. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Whole Blood Derived/Riboflavin-Treated (3517-0, 3518-8), then valueSet NHSN Platelets/Whole Blood Derived/Riboflavin-Treated (urn:oid:2.16.840.1.114222.4.11.7318) **SHALL** be used (CONF:3247-30750).
- o. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Whole Blood Derived/Psoralein-Treated (3505-5, 3507-1), then valueSet NHSN Platelets/Whole Blood Derived/Psoralein-Treated (urn:oid:2.16.840.1.114222.4.11.7317) **SHALL** be used (CONF:3247-30751).
- p. If the product specified in the containing Blood Product Usage Summary Observation is Cryoprecipitate (3562-6, 3563-4), then valueSet NHSN Cryoprecipitate (urn:oid:2.16.840.1.114222.4.11.7315) **SHALL** be used (CONF:3247-30752).
- q. If the product specified in the containing Blood Product Usage Summary Observation is Plasma/Apheresis/Total (3529-5, 3530-3, 3531-1), then valueSet NHSN Plasma/Apheresis/Total (urn:oid:2.16.840.1.114222.4.11.7314) **SHALL** be used (CONF:3247-30753).
- r. If the product specified in the containing Blood Product Usage Summary Observation is Plasma/Whole Blood Derived/Total (3520-4, 3521-2, 3522-0), then valueSet NHSN Plasma/Whole Blood Derived/Total (urn:oid:2.16.840.1.114222.4.11.7313) **SHALL** be used (CONF:3247-30754).
- s. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Irradiated or Leukocyte Reduced (3427-2, 3428-0, 3496-7), then valueSet NHSN Platelets/Apheresis/Irradiated or Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7312) **SHALL** be used (CONF:3247-30755).
- t. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Leukocyte Reduced (3425-6, 3426-4, 3495-9), then valueSet NHSN Platelets/Apheresis/Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7311) **SHALL** be used (CONF:3247-30756).
- u. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Irradiated (3423-1, 3424-9, 3494-2), then

valueSet NHSN Platelets/Apheresis/Irradiated  
(urn:oid:2.16.840.1.114222.4.11.7310) **SHALL** be used (CONF:3247-30757).

- v. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Not Irradiated or Leukocyte Reduced (3491-8, 3492-6, 3493-4), then valueSet NHSN Platelets/Apheresis/Not Irradiated or Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7309) **SHALL** be used (CONF:3247-30758).
- w. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Whole Blood Derived/Irradiated and Leukocyte Reduced (3420-7, 3489-2), then valueSet NHSN Platelets/Whole Blood Derived/Irradiated and Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7307) **SHALL** be used (CONF:3247-30759).
- x. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Whole Blood Derived/Leukocyte Reduced (3419-9, 3488-4), then valueSet NHSN Platelets/Whole Blood Derived/Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7306) **SHALL** be used (CONF:3247-30760).
- y. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Whole Blood Derived/Irradiated (3418-1, 3487-6), then valueSet NHSN Platelets/Whole Blood Derived/Irradiated (urn:oid:2.16.840.1.114222.4.11.7305) **SHALL** be used (CONF:3247-30761).
- z. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Whole Blood Derived/Not Irradiated or Leukocyte Reduced (3485-0, 3486-8), then valueSet NHSN Platelets/Whole Blood Derived/Not Irradiated or Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7304) **SHALL** be used (CONF:3247-30762).
- aa. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Apheresis/Irradiated or Leukocyte Reduced (3415-7, 3416-5, 3483-5), then valueSet NHSN Red Blood Cells/Apheresis/Irradiated or Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7302) **SHALL** be used (CONF:3247-30763).
- bb. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Whole Blood Derived/Leukocyte Reduced (3405-8, 3406-6, 3475-1), then valueSet NHSN Red Blood Cells/Whole Blood Derived/Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7296) **SHALL** be used (CONF:3247-30767).
- cc. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Whole Blood Derived/S-303-Treated (3547-7, 3548-5, 3549-3), then valueSet NHSN Red Blood Cells/Whole Blood Derived/S-303-Treated (urn:oid:2.16.840.1.114222.4.11.7498) **SHALL** be used (CONF:3247-30769).
- dd. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Whole Blood Derived/Riboflavin-Treated (3550-1, 3551-9, 3552-7), then valueSet NHSN Red Blood Cells/Whole Blood Derived/Riboflavin-Treated (urn:oid:2.16.840.1.114222.4.11.7499) **SHALL** be used (CONF:3247-30770).
- ee. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Apheresis/S-303-Treated (3556-8, 3557-6, 3558-4),

- then valueSet NHSN Red Blood Cells/Apheresis/S-303-Treated (urn:oid:2.16.840.1.114222.4.11.7500) **SHALL** be used (CONF:3247-30771).
- ff. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Apheresis/Riboflavin-Treated (3559-2, 3560-0, 3561-8), then valueSet NHSN Red Blood Cells/Apheresis/Riboflavin-Treated (urn:oid:2.16.840.1.114222.4.11.7501) **SHALL** be used (CONF:3247-30772).
  - gg. If the product specified in the containing Blood Product Usage Summary Observation is Cryoprecipitate/Psoralein-Treated (3564-2, 3565-9), then valueSet NHSN Cryoprecipitate/Psoralein-Treated (urn:oid:2.16.840.1.114222.4.11.7502) **SHALL** be used (CONF:3247-30773).
  - hh. If the product specified in the containing Blood Product Usage Summary Observation is Cryoprecipitate/Riboflavin-Treated (3566-7, 3567-5), then valueSet NHSN Cryoprecipitate/Riboflavin-Treated (urn:oid:2.16.840.1.114222.4.11.7503) **SHALL** be used (CONF:3247-30774).
  - ii. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Psoralein-Treated and In Plasma (3568-3, 3569-1, 3570-9), then valueSet NHSN Platelets/Apheresis/Psoralein-Treated and In Plasma (urn:oid:2.16.840.1.114222.4.11.7504) **SHALL** be used (CONF:3247-30775).
  - jj. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Psoralein-Treated and In Platelet Additive Solution (3571-7, 3572-5, 3573-3), then valueSet NHSN Platelets/Apheresis/Psoralein-Treated and In Platelet Additive Solution (urn:oid:2.16.840.1.114222.4.11.7505) **SHALL** be used (CONF:3247-30776).
  - kk. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Riboflavin-Treated and In Plasma (3574-1, 3575-8, 3576-6), then valueSet NHSN Platelets/Apheresis/Riboflavin-Treated and In Plasma (urn:oid:2.16.840.1.114222.4.11.7506) **SHALL** be used (CONF:3247-30777).
  - ll. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Riboflavin-Treated and In Platelet Additive Solution (3577-4, 3578-2, 3579-0), then valueSet NHSN Platelets/Apheresis/Riboflavin-Treated and In Platelet Additive Solution (urn:oid:2.16.840.1.114222.4.11.7507) **SHALL** be used (CONF:3247-30778).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3247-30718).
    - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3247-30722).
  6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="INT"** (CONF:3247-30723).

**Table 291: NHSN Whole Blood Total (1)**

Value Set: NHSN Whole Blood Total (1) urn:oid:2.16.840.1.114222.4.11.7292 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for Whole Blood Total reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E0009	ISBT-128	urn:oid:2.16.840.1.113883.6.18	WHOLE BLOOD   CPD/450mL/refg
E0013	ISBT-128	urn:oid:2.16.840.1.113883.6.18	WHOLE BLOOD   CPD/450mL/refg   Open
...			

**Table 292: NHSN Red Blood Cells/Whole Blood Derived/Not Irradiated or Leukocyte Reduced (3)**

Value Set: NHSN Red Blood Cells/Whole Blood Derived/Not Irradiated or Leukocyte Reduced (3) urn:oid:2.16.840.1.114222.4.11.7294 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Whole Blood Derived/Not Irradiated or Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E0142	ISBT-128	urn:oid:2.16.840.1.113883.6.18	RED BLOOD CELLS   ACD-A/450mL/refg
E0146	ISBT-128	urn:oid:2.16.840.1.113883.6.18	RED BLOOD CELLS   ACD-B/450mL/refg
...			

**Table 293: NHSN Red Blood Cells/Whole Blood Derived/Irradiated (4)**

Value Set: NHSN Red Blood Cells/Whole Blood Derived/Irradiated (4) urn:oid:2.16.840.1.114222.4.11.7295 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Whole Blood Derived/Irradiated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E0155	ISBT-128	urn:oid:2.16.840.1.113883.6.18	RED BLOOD CELLS CPD/450mL/ref g Open Irradiated
E0157	ISBT-128	urn:oid:2.16.840.1.113883.6.18	RED BLOOD CELLS CPD/450mL/ref g Open Irradiated Plas ma added
...			

**Table 294: NHSN Red Blood Cells/Whole Blood Derived/Irradiated and Leukocyte Reduced (6)**

Value Set: NHSN Red Blood Cells/Whole Blood Derived/Irradiated and Leukocyte Reduced (6) urn:oid:2.16.840.1.114222.4.11.7297 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Whole Blood Derived/Irradiated and Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E0156	ISBT-128	urn:oid:2.16.840.1.113883.6.18	RED BLOOD CELLS CPD/450mL/ref g Open Irradiated ResL eu:<5E6
E0162	ISBT-128	urn:oid:2.16.840.1.113883.6.18	RED BLOOD CELLS CPD/450mL/ref g Irradiated ResLeu:<5 E6
...			

**Table 295: NHSN Red Blood Cells/Whole Blood Derived/Leukocyte Reduced (5)**

Value Set: NHSN Red Blood Cells/Whole Blood Derived/Leukocyte Reduced (5) urn:oid:2.16.840.1.114222.4.11.7296 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Whole Blood Derived/Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E0158	ISBT-128	urn:oid:2.16.840.1.113883.6.18	RED BLOOD CELLS CPD/450mL/ref g Open ResLeu:<5E6
E0164	ISBT-128	urn:oid:2.16.840.1.113883.6.18	RED BLOOD CELLS CPD/450mL/ref g ResLeu:<5E6
...			

**Table 296: NHSN Red Blood Cells/Apheresis/Not Irradiated or Leukocyte Reduced (8)**

Value Set: NHSN Red Blood Cells/Apheresis/Not Irradiated or Leukocyte Reduced (8) urn:oid:2.16.840.1.114222.4.11.7299 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Apheresis/Not Irradiated or Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E0605	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg
E0624	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Open
...			

**Table 297: NHSN Red Blood Cells/Apheresis/Irradiated (9)**

Value Set: NHSN Red Blood Cells/Apheresis/Irradiated (9) urn:oid:2.16.840.1.114222.4.11.7300 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Apheresis/Irradiated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E0625	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis RED BLOOD CELLS   CP2D>AS3/XX/ refg   Open   Irradiated
E0635	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis RED BLOOD CELLS   CP2D>AS3/XX/ refg   Open   Irradiated   S upernat rem
...			

**Table 298: NHSN Red Blood Cells/Apheresis/Leukocyte Reduced (10)**

Value Set: NHSN Red Blood Cells/Apheresis/Leukocyte Reduced (10) urn:oid:2.16.840.1.114222.4.11.7301 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Apheresis/Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E0643	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis RED BLOOD CELLS   CP2D>AS3/XX/ refg   Open   ResLeu:<5E6
E0644	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis RED BLOOD CELLS   CP2D>AS3/XX/ refg   Open   ResLeu:<5E6   Supernat rem
...			

**Table 299: NHSN Plasma/Apheresis/Riboflavin-Treated (36)**

Value Set: NHSN Plasma/Apheresis/Riboflavin-Treated (36) urn:oid:2.16.840.1.114222.4.11.7327 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.			
The ISBT blood product codes for NHSN Plasma/Apheresis/Riboflavin-Treated reporting, at the time of publication, are contained in this value set.			
A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E6544	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis FRESH FROZEN PLASMA   ACD- A/XX/ <-25C   Riboflavin- treated
E6545	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis FRESH FROZEN PLASMA   NaCitrate/XX/ <-25C   Frozen <=6h   Riboflavin-treated
...			

**Table 300: NHSN Plasma/Apheresis/Psoralen-Treated (35)**

Value Set: NHSN Plasma/Apheresis/Psoralen-Treated (35) urn:oid:2.16.840.1.114222.4.11.7326 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.			
The ISBT blood product codes for NHSN Plasma/Apheresis/Psoralen-Treated reporting, at the time of publication, are contained in this value set.			
A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E4984	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis FRESH FROZEN PLASMA   CPD- 50/XX/ <-30C   Psoralen- treated
E5732	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis FRESH FROZEN PLASMA   CPD- 50/XX/ <-25 C   1st container   Psoralen- treated
...			



**Table 301: NHSN Plasma/Whole Blood Derived/Riboflavin-Treated (33)**

Value Set: NHSN Plasma/Whole Blood Derived/Riboflavin-Treated (33) urn:oid:2.16.840.1.114222.4.11.7324 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.			
The ISBT blood product codes for NHSN Plasma/Whole Blood Derived/Riboflavin-Treated reporting, at the time of publication, are contained in this value set.			
A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E6542	ISBT-128	urn:oid:2.16.840.1.113883.6.18	FRESH FROZEN PLASMA   CPDA-1/XX/ <- 25C   Riboflavin-treated
E6543	ISBT-128	urn:oid:2.16.840.1.113883.6.18	PLASMA   CPDA-1/XX/ <- 25C   Cryo reduced   Riboflavin- treated
...			

**Table 302: NHSN Plasma/Whole Blood Derived/Psoralen-Treated (32)**

Value Set: NHSN Plasma/Whole Blood Derived/Psoralen-Treated (32) urn:oid:2.16.840.1.114222.4.11.7323 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.			
The ISBT blood product codes for NHSN Plasma/Whole Blood Derived/Psoralen-Treated reporting, at the time of publication, are contained in this value set.			
A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E4983	ISBT-128	urn:oid:2.16.840.1.113883.6.18	POOLED PLASMA   CPD/450mL/ < -30C   2 units   Psoralen- treated
E5735	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Liquid POOLED PLASMA   CPD/450mL/r efg   2 units   Psoralen- treated
...			

**Table 303: NHSN Platelets/Apheresis/Riboflavin-Treated (30)**

Value Set: NHSN Platelets/Apheresis/Riboflavin-Treated (30) urn:oid:2.16.840.1.114222.4.11.7321 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Apheresis/Riboflavin-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E5748	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis PLATELETS ACD- A/XX/20- 24C ResLeu:<5E6 Ribof lavin-treated
E5749	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis PLATELETS ACD- A/XX/20- 24C ResLeu:<5E6 1st container Riboflavin- treated
...			

**Table 304: NHSN Platelets/Apheresis/Psoralein-Treated (29)**

Value Set: NHSN Platelets/Apheresis/Psoralein-Treated (29) urn:oid:2.16.840.1.114222.4.11.7320 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Apheresis/Psoralein-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E4977	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis PLATELETS PAS- C/XX/20- 24C ResLeu:<1E6 1st container Approx 240 E9 plts Psoralein-treated
E4979	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis PLATELETS PAS- C/XX/20- 24C ResLeu:<1E6 2nd container Approx 240 E9 plts Psoralein-treated
...			

**Table 305: NHSN Platelets/Whole Blood Derived/Riboflavin-Treated (27)**

Value Set: NHSN Platelets/Whole Blood Derived/Riboflavin-Treated (27) urn:oid:2.16.840.1.114222.4.11.7318 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.			
The ISBT blood product codes for NHSN Platelets/Whole Blood Derived/Riboflavin-Treated reporting, at the time of publication, are contained in this value set.			
A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E5772	ISBT-128	urn:oid:2.16.840.1.113883.6.18	POOLED PLATELETS   CPD/XX/2 0- 24C   ResLeu:<1E6   Ribof lavin-treated
E5773	ISBT-128	urn:oid:2.16.840.1.113883.6.18	POOLED PLATELETS   CPD/XX/2 0- 24C   Irradiated   ResLeu: <1E6   Riboflavin-treated
...			

**Table 306: NHSN Platelets/Whole Blood Derived/Psoralein-Treated (26)**

Value Set: NHSN Platelets/Whole Blood Derived/Psoralein-Treated (26) urn:oid:2.16.840.1.114222.4.11.7317 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.			
The ISBT blood product codes for NHSN Platelets/Whole Blood Derived/Psoralein-Treated reporting, at the time of publication, are contained in this value set.			
A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E4975	ISBT-128	urn:oid:2.16.840.1.113883.6.18	POOLED PLATELETS   PAS- C/XX/20- 24C   ResLeu:<1E6   Buffy coat plts prep   Approx 240 E9 plts   Psoralein- treated
E5297	ISBT-128	urn:oid:2.16.840.1.113883.6.18	POOLED PLATELETS   CPD>PAS- C/XX/20- 24C   ResLeu:<1E6   Buffy coat plts prep   Approx 240 E9 plts   Psoralein- treated
...			

**Table 307: NHSN Cryoprecipitate (24)**

Value Set: NHSN Cryoprecipitate (24) urn:oid:2.16.840.1.114222.4.11.7315 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Cryoprecipitate reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E3571	ISBT-128	urn:oid:2.16.840.1.113883.6.18	CRYOPRECIPITATE   Non e/450mL/<=-18C
E3572	ISBT-128	urn:oid:2.16.840.1.113883.6.18	CRYOPRECIPITATE   Non e/450mL/<=-18C   Irradiated
...			

**Table 308: NHSN Plasma/Apheresis/Total (23)**

Value Set: NHSN Plasma/Apheresis/Total (23) urn:oid:2.16.840.1.114222.4.11.7314 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Plasma/Apheresis/Total reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E0829	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis FRESH FROZEN PLASMA   ACD-B/XX/<=-18C
E0838	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis FRESH FROZEN PLASMA   ACD-B/XX/<=-18C   Irradiated
...			

**Table 309: NHSN Plasma/Whole Blood Derived/Total (22)**

Value Set: NHSN Plasma/Whole Blood Derived/Total (22) urn:oid:2.16.840.1.114222.4.11.7313 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Plasma/Whole Blood Derived/Total reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E0695	ISBT-128	urn:oid:2.16.840.1.113883.6.18	FRESH FROZEN PLASMA   ACD-B/XX/≤-18C
E0698	ISBT-128	urn:oid:2.16.840.1.113883.6.18	FRESH FROZEN PLASMA   ACD-B/XX/≤-18C   Irradiated
...			

**Table 310: NHSN Platelets/Apheresis/Irradiated or Leukocyte Reduced (21)**

Value Set: NHSN Platelets/Apheresis/Irradiated or Leukocyte Reduced (21) urn:oid:2.16.840.1.114222.4.11.7312 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Apheresis/Irradiated or Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E2983	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis PLATELETS   ACD-A/XX/20-24C   Open   Irradiated   ResLeu: <5E6
E2984	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis PLATELETS   ACD-A/XX/20-24C   Open   Irradiated   ResLeu: <5E6   Plasma reduced
...			

**Table 311: NHSN Platelets/Apheresis/Leukocyte Reduced (20)**

Value Set: NHSN Platelets/Apheresis/Leukocyte Reduced (20) urn:oid:2.16.840.1.114222.4.11.7311 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.			
The ISBT blood product codes for NHSN Platelets/Apheresis/Leukocyte Reduced reporting, at the time of publication, are contained in this value set.			
A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E3014	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis PLATELETS ACD- A/XX/20- 24C Open ResLeu:<5E6
E3015	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis PLATELETS ACD- A/XX/20- 24C Open ResLeu:<5E6  Plasma reduced
...			

**Table 312: NHSN Platelets/Apheresis/Irradiated (19)**

Value Set: NHSN Platelets/Apheresis/Irradiated (19) urn:oid:2.16.840.1.114222.4.11.7310 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.			
The ISBT blood product codes for NHSN Platelets/Apheresis/Irradiated reporting, at the time of publication, are contained in this value set.			
A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E2982	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis PLATELETS ACD- A/XX/20- 24C Open Irradiated
E2999	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis PLATELETS ACD- A/XX/20- 24C Open Irradiated Plasma reduced
...			

**Table 313: NHSN Platelets/Apheresis/Not Irradiated or Leukocyte Reduced (18)**

Value Set: NHSN Platelets/Apheresis/Not Irradiated or Leukocyte Reduced (18) urn:oid:2.16.840.1.114222.4.11.7309 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Apheresis/Not Irradiated or Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E2922	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis PLATELETS ACD- B/XX/refg
E2926	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis PLATELETS ACD- A/XX/refg
...			

**Table 314: NHSN Platelets/Whole Blood Derived/Irradiated and Leukocyte Reduced (16)**

Value Set: NHSN Platelets/Whole Blood Derived/Irradiated and Leukocyte Reduced (16) urn:oid:2.16.840.1.114222.4.11.7307 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Whole Blood Derived/Irradiated and Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E2810	ISBT-128	urn:oid:2.16.840.1.113883.6.18	PLATELETS CPD/450m L/20- 24C Irradiated ResLeu: <8.3E5
E2811	ISBT-128	urn:oid:2.16.840.1.113883.6.18	PLATELETS CPD/450m L/20- 24C Irradiated ResLeu: <8.3E5 Plasma reduced
...			

**Table 315: NHSN Platelets/Whole Blood Derived/Leukocyte Reduced (15)**

Value Set: NHSN Platelets/Whole Blood Derived/Leukocyte Reduced (15) urn:oid:2.16.840.1.114222.4.11.7306 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.			
The ISBT blood product codes for NHSN Platelets/Whole Blood Derived/Leukocyte Reduced reporting, at the time of publication, are contained in this value set.			
A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E2817	ISBT-128	urn:oid:2.16.840.1.113883.6.18	PLATELETS CPD/450m L/20-24C ResLeu:<8.3E5
E2818	ISBT-128	urn:oid:2.16.840.1.113883.6.18	PLATELETS CPD/450m L/20-24C ResLeu:<8.3E5 Plasma reduced
...			

**Table 316: NHSN Platelets/Whole Blood Derived/Irradiated (14)**

Value Set: NHSN Platelets/Whole Blood Derived/Irradiated (14) urn:oid:2.16.840.1.114222.4.11.7305 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.			
The ISBT blood product codes for NHSN Platelets/Whole Blood Derived/Irradiated reporting, at the time of publication, are contained in this value set.			
A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E2809	ISBT-128	urn:oid:2.16.840.1.113883.6.18	PLATELETS CPD/450m L/20-24C Irradiated
E2814	ISBT-128	urn:oid:2.16.840.1.113883.6.18	PLATELETS CPD/450m L/20-24C Irradiated Plasma reduced
...			



**Table 317: NHSN Platelets/Whole Blood Derived/Not Irradiated or Leukocyte Reduced (13)**

Value Set: NHSN Platelets/Whole Blood Derived/Not Irradiated or Leukocyte Reduced (13) urn:oid:2.16.840.1.114222.4.11.7304 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Whole Blood Derived/Not Irradiated or Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E2790	ISBT-128	urn:oid:2.16.840.1.113883.6.18	PLATELETS   CPD/450mL/refg
E2794	ISBT-128	urn:oid:2.16.840.1.113883.6.18	PLATELETS   CPDA-1/450mL/refg
...			

**Table 318: NHSN Red Blood Cells/Apheresis/Irradiated or Leukocyte Reduced (11)**

Value Set: NHSN Red Blood Cells/Apheresis/Irradiated or Leukocyte Reduced (11) urn:oid:2.16.840.1.114222.4.11.7302 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Apheresis/Irradiated or Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E0626	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis RED BLOOD CELLS   CP2D>AS3/XX/refg   Open   Irradiated   ResLeu:<5E6
E0627	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis RED BLOOD CELLS   CP2D>AS3/XX/refg   Open   Irradiated   ResLeu:<5E6   Supernat rem
...			

**Table 319: NHSN Red Blood Cells/Whole Blood Derived/S-303-Treated**

<p>Value Set: NHSN Red Blood Cells/Whole Blood Derived/S-303-Treated urn:oid:2.16.840.1.114222.4.11.7498</p> <p>NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.</p> <p>The ISBT blood product codes for NHSN Red Blood Cells/Whole Blood Derived/Riboflavin-Treated reporting, at the time of publication, are contained in this value set.</p> <p>A full listing of codes in this value set can be sourced from NHSN.</p>			
Code	Code System	Code System OID	Print Name
NA_RBC_WBD _S-303	ISBT-128	urn:oid:2.16.840.1.113883.6.18	NHSN Red Blood Cells/Whole Blood Derived/S-303-Treated: no codes available at this time please check with NHSN for updates

**Table 320: NHSN Red Blood Cells/Whole Blood Derived/Riboflavin-Treated**

<p>Value Set: NHSN Red Blood Cells/Whole Blood Derived/Riboflavin-Treated urn:oid:2.16.840.1.114222.4.11.7499</p> <p>NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.</p> <p>The ISBT blood product codes for NHSN Red Blood Cells/Whole Blood Derived/S-303-Treated reporting, at the time of publication, are contained in this value set.</p> <p>A full listing of codes in this value set can be sourced from NHSN.</p>			
Code	Code System	Code System OID	Print Name
NA_RBC_WBD _Riboflavin	ISBT-128	urn:oid:2.16.840.1.113883.6.18	NHSN Red Blood Cells/Whole Blood Derived/Riboflavin-Treated: no codes available at this time please check with NHSN for updates

**Table 321: NHSN Red Blood Cells/Apheresis/S-303-Treated (41)**

Value Set: NHSN Red Blood Cells/Apheresis/S-303-Treated (41) urn:oid:2.16.840.1.114222.4.11.7500 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Apheresis/S-303-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
NA_RBC_APH _S-303	ISBT-128	urn:oid:2.16.840.1.113883.6.18	NHSN Red Blood Cells/Apheresis/S-303-Treated: no codes available at this time please check with NHSN for updates

**Table 322: NHSN Red Blood Cells/Apheresis/Riboflavin-Treated (42)**

Value Set: NHSN Red Blood Cells/Apheresis/Riboflavin-Treated (42) urn:oid:2.16.840.1.114222.4.11.7501 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Apheresis/Riboflavin-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
NA_RBC_APH _Riboflavin	ISBT-128	urn:oid:2.16.840.1.113883.6.18	NHSN Red Blood Cells/Apheresis/Riboflavin-Treated: no codes available at this time please check with NHSN for any updates

**Table 323: NHSN Cryoprecipitate/Psoralen-Treated (44)**

Value Set: NHSN Cryoprecipitate/Psoralen-Treated (44) urn:oid:2.16.840.1.114222.4.11.7502 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Cryoprecipitate/Psoralen-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E9288	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Thawed POOLED CRYOPRECIPITATE   CP D/XX/rt   3 units   Psoralen-treated   From 3 donors

**Table 324: NHSN Cryoprecipitate/Riboflavin-Treated (45)**

Value Set: NHSN Cryoprecipitate/Riboflavin-Treated (45) urn:oid:2.16.840.1.114222.4.11.7503 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Cryoprecipitate/Riboflavin-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E7072	ISBT-128	urn:oid:2.16.840.1.113883.6.18	CRYOPRECIPITATE   CP D/450mL/<= -25C   Riboflavin-treated
E7073	ISBT-128	urn:oid:2.16.840.1.113883.6.18	CRYOPRECIPITATE   CP DA-1/450mL/<= -25C   Riboflavin-treated
...			

**Table 325: NHSN Platelets/Apheresis/Psoralen-Treated and In Plasma (46)**

Value Set: NHSN Platelets/Apheresis/Psoralen-Treated and In Plasma (46) urn:oid:2.16.840.1.114222.4.11.7504 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Apheresis/Psoralen-Treated and In Plasma reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E5870	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Washed Apheresis PLATELETS   None/XX/20-24C   ResLeu:<1E6   1st container   Psoralen-treated
E5871	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Washed Apheresis PLATELETS   None/XX/20-24C   ResLeu:<1E6   2nd container   Psoralen-treated
...			

**Table 326: NHSN Platelets/Apheresis/Psoralen-Treated and In Platelet Additive Solution (47)**

Value Set: NHSN Platelets/Apheresis/Psoralen-Treated and In Platelet Additive Solution (47) urn:oid:2.16.840.1.114222.4.11.7505 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Apheresis/Psoralen-Treated and In Platelet Additive Solution reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E4977	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis PLATELETS PAS- C/XX/20- 24C ResLeu:<1E6 1st container Approx 240 E9 plts Psoralen-treated
E4979	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis PLATELETS PAS- C/XX/20- 24C ResLeu:<1E6 2nd container Approx 240 E9 plts Psoralen-treated
...			

**Table 327: NHSN Platelets/Apheresis/Riboflavin-Treated and In Plasma (48)**

Value Set: NHSN Platelets/Apheresis/Riboflavin-Treated and In Plasma (48) urn:oid:2.16.840.1.114222.4.11.7506 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Apheresis/Riboflavin-Treated and In Plasma reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E5748	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis PLATELETS ACD- A/XX/20- 24C ResLeu:<5E6 Ribof lavin-treated
E5749	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis PLATELETS ACD- A/XX/20- 24C ResLeu:<5E6 1st container Riboflavin- treated
...			

**Table 328: NHSN Platelets/Apheresis/Riboflavin-Treated and In Platelet Additive Solution (49)**

Value Set: NHSN Platelets/Apheresis/Riboflavin-Treated and In Platelet Additive Solution (49) urn:oid:2.16.840.1.114222.4.11.7507 NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Apheresis/Riboflavin-Treated and In Platelet Additive Solution reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN.			
Code	Code System	Code System OID	Print Name
E6641	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis PLATELETS PAS- E/XX/20- 24C ResLeu:<1E6 Ribof lavin-treated
E7039	ISBT-128	urn:oid:2.16.840.1.113883.6.18	Apheresis PLATELETS PAS- E/XX/20- 24C ResLeu:<1E6 Supe rnat reduced 1st container Riboflavin- treated
...			

**Figure 109: ISBT Product Code Summary Observation Example**

<pre>&lt;observation classCode="OBS" moodCode="EVN"&gt;   &lt;!-- ISBT Product Code Summary Observation --&gt;   &lt;templateId root="2.16.840.1.113883.10.20.5.6.238"     extension="2015-10-01" /&gt;   &lt;code codeSystem="2.16.840.1.113883.6.18"     codeSystemName="ISBT-128" code="E0009"     displayName="WHOLE BLOOD CPD/450mL/refg" /&gt;   &lt;statusCode code="completed" /&gt;   &lt;value xsi:type="INT" value="2" /&gt; &lt;/observation&gt;</pre>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

3.65 Isolate Susceptibility Tests Organizer (V5)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.201:2024-05-01 (closed)]

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Table 329: Isolate Susceptibility Tests Organizer (V5) Contexts

Contained By:	Contains:
<a href="#">Specimen Collection Procedure (ARO) (V5)</a> (required)	<a href="#">Antimicrobial Susceptibility Tests Organizer (V3)</a> (required) <a href="#">Antimicrobial Susceptibility Isolate Participant (V2)</a> (required) <a href="#">Genotypic Testing for Antimicrobial Resistance Organizer</a> (required) <a href="#">ARO Staph Aureus Specific Tests Organizer (DEPRECATED)</a> (optional)

This organizer records a laboratory-identified microorganism isolate and details of the antimicrobial susceptibility tests performed on that isolate. Additionally, it records the unique isolate identifier for purposes of laboratory tracking. Special gene and protein presence tests are also recorded here.

**Table 330: Isolate Susceptibility Tests Organizer (V5) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.201:2024-05-01)					
@classCode	1..1	SHALL		<a href="#">5554-27120</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">5554-27121</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">5554-27122</a>	
@root	1..1	SHALL		<a href="#">5554-27123</a>	2.16.840.1.113883.10.20.5.6.201
@extension	1..1	SHALL		<a href="#">5554-30470</a>	2024-05-01
id	1..*	SHALL		<a href="#">5554-27124</a>	
@nullFlavor	1..1	SHALL		<a href="#">5554-27125</a>	NA
code	1..1	SHALL		<a href="#">5554-27126</a>	
@code	1..1	SHALL		<a href="#">5554-27127</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 18725-2
statusCode	1..1	SHALL		<a href="#">5554-27128</a>	
@code	1..1	SHALL		<a href="#">5554-27129</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
participant	1..1	SHALL		<a href="#">5554-27130</a>	<a href="#">Antimicrobial Susceptibility Isolate Participant (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.202:2020-04-01)</a>
component	0..1	SHOULD NOT		<a href="#">5554-27156</a>	
organizer	1..1	SHALL		<a href="#">5554-27157</a>	<a href="#">ARO Staph Aureus Specific Tests Organizer (DEPRECATED) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.190:2024-05-01)</a>
component	1..1	SHALL		<a href="#">5554-31113</a>	
organizer	1..1	SHALL		<a href="#">5554-31114</a>	<a href="#">Genotypic Testing for Antimicrobial Resistance Organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.303:2024-05-01)</a>
component	1..*	SHALL		<a href="#">5554-27158</a>	
organizer	1..1	SHALL		<a href="#">5554-</a>	<a href="#">Antimicrobial Susceptibility</a>



XPath	Card.	Verb	Data Type	CONF#	Value
				<a href="#">30469</a>	<a href="#">Tests Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.177:2016-08-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="CLUSTER" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:5554-27120).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:5554-27121).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:5554-27122) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.201" (CONF:5554-27123).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2024-05-01" (CONF:5554-30470).
4. **SHALL** contain at least one [1..\*] **id** (CONF:5554-27124).
  - a. Such ids **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:5554-27125).
5. **SHALL** contain exactly one [1..1] **code** (CONF:5554-27126).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="18725-2" Microbiology studies (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:5554-27127).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:5554-27128).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:5554-27129).
7. **SHALL** contain exactly one [1..1] [Antimicrobial Susceptibility Isolate Participant \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.202:2020-04-01) (CONF:5554-27130).

This ARO Staph Aureus Specific component has been DEPRECATED and should not be used, it has been replaced by the Gene and Protein Presence Tests Organizer

8. **SHOULD NOT** contain zero or one [0..1] **component** (CONF:5554-27156) such that it
  - a. **SHALL** contain exactly one [1..1] [ARO Staph Aureus Specific Tests Organizer \(DEPRECATED\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.190:2024-05-01) (CONF:5554-27157).
9. **SHALL** contain exactly one [1..1] **component** (CONF:5554-31113) such that it
  - a. **SHALL** contain exactly one [1..1] [Genotypic Testing for Antimicrobial Resistance Organizer](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.303:2024-05-01) (CONF:5554-31114).
10. **SHALL** contain at least one [1..\*] **component** (CONF:5554-27158) such that it
  - a. **SHALL** contain exactly one [1..1] [Antimicrobial Susceptibility Tests Organizer \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.177:2016-08-01) (CONF:5554-30469).

**Figure 110: Isolate Susceptibility Tests Organizer (V5) Example**

```

<organizer classCode="CLUSTER" moodCode="EVN">
  <!-- [HAI R4STU3] Isolate Susceptibility Tests Organizer (V5) -->
  <templateId extension="2024-05-01" root="2.16.840.1.113883.10.20.5.6.201" />
  <id nullFlavor="NA" />
  <code code="18725-2"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="Microbiology Studies" />
  <statusCode code="completed" />
  <!-- [HAI R3N1] Antimicrobial Susceptibility Isolate Participant (V2) -->
  <participant typeCode="SBJ">
    <!-- [HAI R3N1] Antimicrobial Susceptibility Isolate Participant (V2) -->
    <templateId extension="2020-04-01" root="2.16.840.1.113883.10.20.5.6.202" />
    <participantRole classCode="ISLT">
      <!-- Isolate identifier - unique for each isolate in that year -->
      <id extension="125698523" root="8d7ebcf7-528e-48e8-9e04-350b11b591d1" />
      <playingEntity>
        <code code="3092008"
          codeSystem="2.16.840.1.113883.6.96"
          codeSystemName="SNOMED CT"
          displayName="Staphylococcus aureus" />
      </playingEntity>
    </participantRole>
  </participant>
  <!-- This ARO Staph Aureus Specific component has been DEPRECATED
    and should not be used, it has been replaced by the Gene and Protein Presence
    Tests Organizer -->
  <!--<!-- [HAI R4STU3] ARO Staph Aureus Specific Tests Organizer (DEPRECATED) -->
  <component>
    <organizer classCode="CLUSTER" moodCode="EVN">
      <!-- [C-CDA R1.1] Result Organizer -->
      <templateId root="2.16.840.1.113883.10.20.22.4.1" />
      <!-- [HAI R4STU3] ARO Staph Aureus Specific Tests Organizer (DEPRECATED) -->
    </organizer>
  </component>
  <!-- This component is for gene and protein presence tests
    (this includes the tests that previously were included in the
    now-deprecated ARO Staph Aureus Specific Tests Organizer) -->
  <!-- [HAI R4STU3] Gene and Protein Presence Tests Organizer -->
  <component>
    <organizer classCode="CLUSTER" moodCode="EVN">
      <!-- [C-CDA R1.1] Result Organizer -->
      <templateId root="2.16.840.1.113883.10.20.22.4.1" />
      <!-- [HAI R4STU3] Gene and Protein Presence Tests Organizer -->
      <templateId root="2.16.840.1.113883.10.20.5.6.303" extension="2024-05-01" />
    </organizer>
  </component>
  <!-- Clarithromycin Susceptibility Testing -->
  <component>
    <organizer classCode="CLUSTER" moodCode="EVN">

```

```

        <!-- [C-CDA R1.1] Result Organizer -->
        <templateId root="2.16.840.1.113883.10.20.22.4.1" />
        <!-- [HAI R3D1.1] Antimicrobial Susceptibility Tests Organizer (V3) -->
        <templateId extension="2016-08-01" root="2.16.840.1.113883.10.20.5.6.177" />
        ...
    </organizer>
</component>
<!-- Vancomycin susceptibility testing -->
<component>
    <organizer classCode="CLUSTER" moodCode="EVN">
        <!-- [C-CDA R1.1] Result Organizer -->
        <templateId root="2.16.840.1.113883.10.20.22.4.1" />
        <!-- [HAI R3D1.1] Antimicrobial Susceptibility Tests Organizer (V3) -->
        <templateId extension="2016-08-01" root="2.16.840.1.113883.10.20.5.6.177" />
        ...
    </organizer>
</component>
</organizer>

```

### 3.66 IV Antibiotic Start Clinical Statement (V4)

[substanceAdministration: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.5.6.140:2019-04-01 (closed)]

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**Table 331: IV Antibiotic Start Clinical Statement (V4) Contexts**

Contained By:	Contains:
<a href="#">Infection Indicator Organizer (V5)</a> (required)	<a href="#">Type of Antimicrobial Start Observation</a> (optional) <a href="#">Blood Sample Collected for Culture Observation</a> (optional)

This clinical statement records whether an IV antibiotic was started and if an IV antibiotic was started, the date of the event. It also contains entries detailing the type of antimicrobial start (new or a continuation) and, if the type was new, whether a blood sample was collected for culture. It is used in an Evidence of Infection (Dialysis) Report.

When the IV antibiotic was started, set the value of @negationInd to false and record the event date in effectiveTime/low/@value. When the IV antibiotic was not started, set the value of @negationInd to true and set effectiveTime/low/@nullFlavor='NA'.

**Table 332: IV Antibiotic Start Clinical Statement (V4) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.140:2019-04-01)					
@classCode	1..1	SHALL		<a href="#">4395-21171</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM
@moodCode	1..1	SHALL		<a href="#">4395-21172</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">4395-21173</a>	
templateId	1..1	SHALL		<a href="#">4395-28253</a>	
@root	1..1	SHALL		<a href="#">4395-28254</a>	2.16.840.1.113883.10.20.22.4.16
templateId	1..1	SHALL		<a href="#">4395-21426</a>	
@root	1..1	SHALL		<a href="#">4395-21427</a>	2.16.840.1.113883.10.20.5.6.140
@extension	1..1	SHALL		<a href="#">4395-30671</a>	2019-04-01
id	1..1	SHALL		<a href="#">4395-21428</a>	
@nullFlavor	1..1	SHALL		<a href="#">4395-22766</a>	NA
code	1..1	SHALL		<a href="#">4395-21174</a>	
@code	1..1	SHALL		<a href="#">4395-21175</a>	281790008
@codeSystem	1..1	SHALL		<a href="#">4395-28187</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">4395-21429</a>	
@code	1..1	SHALL		<a href="#">4395-28109</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL	IVL_TS	<a href="#">4395-21496</a>	
low	1..1	SHALL		<a href="#">4395-21497</a>	
@nullFlavor	0..1	MAY		<a href="#">4395-22767</a>	NA
@value	0..1	MAY		<a href="#">4395-30673</a>	
high	1..1	SHALL		<a href="#">4395-21498</a>	
@nullFlavor	1..1	SHALL		<a href="#">4395-22768</a>	NA

XPath	Card.	Verb	Data Type	CONF#	Value
consumable	1..1	SHALL		<a href="#">4395-21176</a>	
manufacturedProduct	1..1	SHALL		<a href="#">4395-21177</a>	
@classCode	1..1	SHALL		<a href="#">4395-28348</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
templateId	1..1	SHALL		<a href="#">4395-28338</a>	
@root	1..1	SHALL		<a href="#">4395-28339</a>	2.16.840.1.113883.10.20.22.4.23
manufacturedMaterial	1..1	SHALL		<a href="#">4395-21178</a>	
code	1..1	SHALL		<a href="#">4395-21179</a>	
entryRelationship	0..1	SHOULD		<a href="#">4395-30667</a>	
@typeCode	1..1	SHALL		<a href="#">4395-30670</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">4395-30668</a>	<a href="#">Type of Antimicrobial Start Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.230:2015-10-01)</a>
entryRelationship	0..1	SHOULD		<a href="#">4395-30669</a>	
@typeCode	1..1	SHALL		<a href="#">4395-30672</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">4395-30567</a>	<a href="#">Blood Sample Collected for Culture Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.239:2016-08-01)</a>

1. Conforms to Medication Activity template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.16).
2. **SHALL** contain exactly one [1..1] @classCode="SBADM" Substance Administration (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4395-21171).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4395-21172).

When the IV antibiotic was started, set the value of @negationInd to false. When the IV antibiotic was not started, set the value of @negationInd to true.

4. **SHALL** contain exactly one [1..1] @negationInd (CONF:4395-21173).
5. **SHALL** contain exactly one [1..1] templateId (CONF:4395-28253) such that it

- a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.22.4.16"` (CONF:4395-28254).
6. **SHALL** contain exactly one [1..1] `templateId` (CONF:4395-21426) such that it
  - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.5.6.140"` (CONF:4395-21427).
  - b. **SHALL** contain exactly one [1..1] `@extension="2019-04-01"` (CONF:4395-30671).
7. **SHALL** contain exactly one [1..1] `id` (CONF:4395-21428).
  - a. This `id` **SHALL** contain exactly one [1..1] `@nullFlavor="NA"` (CONF:4395-22766).
8. **SHALL** contain exactly one [1..1] `code` (CONF:4395-21174).
  - a. This `code` **SHALL** contain exactly one [1..1] `@code="281790008"` Intravenous antibiotic therapy (CONF:4395-21175).
  - b. This `code` **SHALL** contain exactly one [1..1] `@codeSystem="2.16.840.1.113883.6.96"` (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4395-28187).
9. **SHALL** contain exactly one [1..1] `statusCode` (CONF:4395-21429).
  - a. This `statusCode` **SHALL** contain exactly one [1..1] `@code="completed"` Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4395-28109).
10. **SHALL** contain exactly one [1..1] `effectiveTime` (CONF:4395-21496).

When the IV antibiotic was started, record the event date in `effectiveTime/low/@value`. When the IV antibiotic was not started, set `effectiveTime/low/@nullFlavor='NA'`.

- a. This `effectiveTime` **SHALL** contain exactly one [1..1] `low` (CONF:4395-21497).
    - i. This `low` **MAY** contain zero or one [0..1] `@nullFlavor="NA"` (CONF:4395-22767).
    - ii. This `low` **MAY** contain zero or one [0..1] `@value` (CONF:4395-30673).
  - b. This `effectiveTime` **SHALL** contain exactly one [1..1] `high` (CONF:4395-21498).
    - i. This `high` **SHALL** contain exactly one [1..1] `@nullFlavor="NA"` (CONF:4395-22768).
11. **SHALL** contain exactly one [1..1] `consumable` (CONF:4395-21176).
  - a. This `consumable` **SHALL** contain exactly one [1..1] `manufacturedProduct` (CONF:4395-21177).
    - i. This `manufacturedProduct` **SHALL** contain exactly one [1..1] `@classCode="MANU"` (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4395-28348).
    - ii. This `manufacturedProduct` **SHALL** contain exactly one [1..1] `templateId` (CONF:4395-28338) such that it
      1. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.22.4.23"` (CONF:4395-28339).
    - iii. This `manufacturedProduct` **SHALL** contain exactly one [1..1] `manufacturedMaterial` (CONF:4395-21178).
      1. This `manufacturedMaterial` **SHALL** contain exactly one [1..1] `code` (CONF:4395-21179).
        - a. In an Evidence of Infection (Dialysis) Report, if the antimicrobial started was Vancomycin, the value of `@code`

**SHALL** be '11124' Vancomycin [[[CodeSystem:  
2.16.840.1.113883.6.88 RxNorm]. Otherwise, the value of  
@nullFlavor **SHALL** be 'NI' (CONF:4395-21180).

12. **SHOULD** contain zero or one [0..1] **entryRelationship** (CONF:4395-30667) such that it
- a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem:  
HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4395-30670).
  - b. **SHALL** contain exactly one [1..1] **Type of Antimicrobial Start Observation**  
(identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.230:2015-10-01)  
(CONF:4395-30668).

If the type of antimicrobial start in the Type of Antimicrobial Start Observation was "New antimicrobial start" (2336-6) then the following template *SHALL* be present.

13. **SHOULD** contain zero or one [0..1] **entryRelationship** (CONF:4395-30669) such that it
- a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem:  
HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4395-30672).
  - b. **SHALL** contain exactly one [1..1] **Blood Sample Collected for Culture Observation** (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.5.6.239:2016-08-01) (CONF:4395-30567).

**Figure 111: IV Antibiotic Start Clinical Statement (V4) Example**

```
<!-- When the IV antibiotic was started, set the value of @negationInd to false and record
the event date in effectiveTime/low/@value. When the IV antibiotic was not started, set the
value of @negationInd to true and set effectiveTime/low/@nullFlavor='NA'. -->
<substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="false">
  <!-- [C-CDA R1.1] Medication Activity -->
  <templateId root="2.16.840.1.113883.10.20.22.4.16" />
  <!-- [HAI R3D1.1] Antibiotic Start Clinical Statement (V3) -->
  <templateId root="2.16.840.1.113883.10.20.5.6.140" extension="2019-04-01" />
  <id nullFlavor="NA" />
  <code codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"
    code="281790008"
    displayName="Intravenous antibiotic therapy" />
  <statusCode code="completed" />
  <effectiveTime xsi:type="IVL_TS">
    <low value="20181201" />
    <high nullFlavor="NA" />
  </effectiveTime>

  <!-- The antibiotic started was IV Vancomycin -->
  <consumable>
    <manufacturedProduct classCode="MANU">
      <templateId root="2.16.840.1.113883.10.20.22.4.23" />
      <manufacturedMaterial>
        <code codeSystem="2.16.840.1.113883.6.88"
          codeSystemName="RxNorm"
          code="11124"
          displayName="Vancomycin" />
      </manufacturedMaterial>
    </manufacturedProduct>
  </consumable>
  <entryRelationship typeCode="REFR">

    <!-- Type of Antimicrobial Start Observation -->
    <observation classCode="OBS" moodCode="EVN">
      <!-- [HAI R3D1] Type of Antimicrobial Start Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.230" extension="2015-10-01" />
      ...
    </observation>
  </entryRelationship>

  <!-- If type of antimicrobial start is "new antimicrobial start" 2336-6 then specify
  whether or not blood sample collected for culture -->
  <!-- Blood Sample Collected for Culture Observation -->
  <entryRelationship typeCode="REFR">
    <!-- Blood sample was collected so @negationInd="false" -->
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- [HAI R3D1.1] Blood Sample Collected for Culture Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.239" extension="2016-08-01" />
      ...
    </observation>
  </entryRelationship>
</substanceAdministration>
```



3.67 IV Antifungal Start Clinical Statement

[substanceAdministration: identifier urn:oid:2.16.840.1.113883.10.20.5.6.141 (closed)]

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Table 333: IV Antifungal Start Clinical Statement Contexts

Contained By:	Contains:
<a href="#">Infection Indicator Organizer (V5)</a> (required)	

This clinical statement records whether an IV antifungal was started. It is used in an Evidence of Infection (Dialysis) Report.

When the IV antifungal was started, set the value of @negationInd to false. When the IV antifungal was not started, set the value of @negationInd to true.

**Table 334: IV Antifungal Start Clinical Statement Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
substanceAdministration (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.141)					
@classCode	1..1	SHALL		<a href="#">86-21166</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM
@moodCode	1..1	SHALL		<a href="#">86-21167</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-21168</a>	
templateId	1..1	SHALL		<a href="#">86-28255</a>	
@root	1..1	SHALL		<a href="#">86-28256</a>	2.16.840.1.113883.10.20.22.4.16
templateId	1..1	SHALL		<a href="#">86-21501</a>	
@root	1..1	SHALL		<a href="#">86-21502</a>	2.16.840.1.113883.10.20.5.6.141
id	1..1	SHALL		<a href="#">86-21503</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22763</a>	NA
code	1..1	SHALL		<a href="#">86-21169</a>	
@code	1..1	SHALL		<a href="#">86-21170</a>	2306-9
@codeSystem	0..1	MAY		<a href="#">86-28188</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
statusCode	1..1	SHALL		<a href="#">86-21504</a>	
@code	1..1	SHALL		<a href="#">86-28110</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL	IVL_TS	<a href="#">86-21505</a>	
low	1..1	SHALL		<a href="#">86-21506</a>	
@nullFlavor	0..1	SHOULD		<a href="#">86-22764</a>	NA
high	1..1	SHALL		<a href="#">86-21507</a>	
@nullFlavor	0..1	SHOULD		<a href="#">86-22765</a>	NA
consumable	1..1	SHALL		<a href="#">86-28340</a>	
manufacturedProduct	1..1	SHALL		<a href="#">86-28341</a>	
@classCode	1..1	SHALL		<a href="#">86-28347</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
templateId	1..1	SHALL		<a href="#">86-28342</a>	
@root	1..1	SHALL		<a href="#">86-28345</a>	2.16.840.1.113883.10.20.22.4.23
manufacturedMaterial	1..1	SHALL		<a href="#">86-28343</a>	
code	1..1	SHALL		<a href="#">86-28344</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-28346</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NI

1. Conforms to Medication Activity template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.16).
2. **SHALL** contain exactly one [1..1] **@classCode**="SBADM" Substance Administration (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21166).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21167).

When the IV antifungal was started, set the value of **@negationInd** to false. When the IV antifungal was not started, set the value of **@negationInd** to true.

4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:86-21168).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28255) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.16" (CONF:86-28256).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-21501) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.141" (CONF:86-21502).
7. **SHALL** contain exactly one [1..1] **id** (CONF:86-21503).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22763).
8. **SHALL** contain exactly one [1..1] **code** (CONF:86-21169).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="2306-9" Intravenous injection of antifungal substance (CONF:86-21170).
  - b. This code **MAY** contain zero or one [0..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:86-28188).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-21504).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-28110).
10. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:86-21505).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:86-21506).
    - i. This low **SHOULD** contain zero or one [0..1] **@nullFlavor**="NA" (CONF:86-22764).
  - b. This effectiveTime **SHALL** contain exactly one [1..1] **high** (CONF:86-21507).
    - i. This high **SHOULD** contain zero or one [0..1] **@nullFlavor**="NA" (CONF:86-22765).

C-CDA (and CDA) require the consumable element, however NHSN does not collect further information about the antifungal.

11. **SHALL** contain exactly one [1..1] **consumable** (CONF:86-28340).
  - a. This consumable **SHALL** contain exactly one [1..1] **manufacturedProduct** (CONF:86-28341).
    - i. This manufacturedProduct **SHALL** contain exactly one [1..1] **@classCode**="MANU" (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:86-28347).

- ii. This manufacturedProduct **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28342) such that it
  1. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.23" (CONF:86-28345).
- iii. This manufacturedProduct **SHALL** contain exactly one [1..1] **manufacturedMaterial** (CONF:86-28343).
  1. This manufacturedMaterial **SHALL** contain exactly one [1..1] **code** (CONF:86-28344).
    - a. This code **SHALL** contain exactly one [1..1] **@nullFlavor**="NI" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:86-28346).

**Figure 112: IV Antifungal Start Clinical Statement Example**

```
<substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="false">
  <!-- C-CDA Medication Activity templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
  <!-- HAI IV antifungal start clinical statement templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.141"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        code="2306-9"
        displayName="Intravenous injection of antifungal substance"/>
  <statusCode code="completed"/>
  <effectiveTime xsi:type="IVL_TS">
    <low nullFlavor="NA" />
    <high nullFlavor="NA" />
  </effectiveTime>
  <!-- CDA requires the consumable element, however NHSN does not
        collect further information the antifungal -->
  <consumable>
    <manufacturedProduct classCode="MANU">
      <templateId root="2.16.840.1.113883.10.20.22.4.23" />
      <manufacturedMaterial>
        <code nullFlavor="NI"/>
      </manufacturedMaterial>
    </manufacturedProduct>
  </consumable>
</substanceAdministration>
```

### 3.68 Known or Suspected Munchhausen's By Proxy Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.250:2018-04-01 (closed)]

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**Table 335: Known or Suspected Munchhausen's By Proxy Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a BSI Report (V3)</a> (required)	

This observation records whether the person had known or suspected Munchhausen's By Proxy. If the person did have known or suspected Munchhausen's by proxy, set the value of @negationInd to false. If the person did not have known or suspected Munchhausen's by proxy, set the value of @negationInd to true.

**Table 336: Known or Suspected Munchhausen's By Proxy Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.250:2018-04-01)					
@classCode	1..1	SHALL		<a href="#">3357-30620</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">3357-30621</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">3357-30622</a>	
templateId	1..1	SHALL		<a href="#">3357-30614</a>	
@root	1..1	SHALL		<a href="#">3357-30623</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">3357-30619</a>	
@root	1..1	SHALL		<a href="#">3357-30630</a>	2.16.840.1.113883.10.20.5.6.250
@extension	1..1	SHALL		<a href="#">3357-30631</a>	2018-04-01
id	1..1	SHALL		<a href="#">3357-30615</a>	
@nullFlavor	1..1	SHALL		<a href="#">3357-30624</a>	NA
code	1..1	SHALL		<a href="#">3357-30616</a>	
@code	1..1	SHALL		<a href="#">3357-30625</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">3357-30626</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">3357-30617</a>	
@code	1..1	SHALL		<a href="#">3357-30627</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">3357-30618</a>	
@code	1..1	SHALL	CS	<a href="#">3357-30628</a>	3055-1
@codeSystem	1..1	SHALL		<a href="#">3357-30629</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).

2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3357-30620).
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3357-30621).

If the person did have known or suspected Munchhausen's by proxy, set the value of **@negationInd** to false. If the person did not have known or suspected Munchhausen's by proxy, set the value of **@negationInd** to true.

4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:3357-30622).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-30614) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.4"** (CONF:3357-30623).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-30619) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.5.6.250"** (CONF:3357-30630).
  - b. **SHALL** contain exactly one [1..1] **@extension="2018-04-01"** (CONF:3357-30631).
7. **SHALL** contain exactly one [1..1] **id** (CONF:3357-30615).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor="NA"** (CONF:3357-30624).
8. **SHALL** contain exactly one [1..1] **code** (CONF:3357-30616).
  - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** Assertion (CONF:3357-30625).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3357-30626).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3357-30617).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:3357-30627).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:3357-30618).
  - a. This value **SHALL** contain exactly one [1..1] **@code="3055-1"** Known or suspected Munchhausen Syndrome by Proxy during current admission (CONF:3357-30628).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.277"** (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3357-30629).

**Figure 113: Known or Suspected Munchhausen's by Proxy Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- [C-CDA R1.1] Problem Observation -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- [HAI R3D3] Known or Suspected Munchhausen's By Proxy Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.250" extension="2018-04-01"/>
  <id nullFlavor="NA"/>
  <code code="ASSERTION"
    codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    code="3055-1"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    displayName="Known or suspected Munchhausen Syndrome by Proxy during current
admission "/>
</observation>
```

### 3.69 Last Physical Overnight Location Act

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.227:2014-12-01  
(closed)]

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**Table 337: Last Physical Overnight Location Act Contexts**

Contained By:	Contains:
<a href="#">Encounters Section in a LIO Report (V2)</a> (required)	<a href="#">Last Physical Overnight Location Encounter</a> (optional)

This act template is a wrapper around the Last Physical Overnight Location Encounter template. The act identifies that the contained encounter represents the last physical overnight location of the patient, while the encounter template records the type of encounter and the type of location.



**Table 338: Last Physical Overnight Location Act Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.227:2014-12-01)					
@nullFlavor	0..1	MAY		<a href="#">1129-30558</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA
@classCode	1..1	SHALL		<a href="#">1129-30564</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1129-30565</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1129-30560</a>	
@root	1..1	SHALL		<a href="#">1129-30567</a>	2.16.840.1.113883.10.20.5.6.227
@extension	1..1	SHALL		<a href="#">1129-30570</a>	2014-12-01
code	1..1	SHALL		<a href="#">1129-30562</a>	
@code	1..1	SHALL		<a href="#">1129-30569</a>	3002-3
@codeSystem	1..1	SHALL		<a href="#">1129-30571</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
entryRelationship	0..1	SHOULD		<a href="#">1129-30572</a>	
@typeCode	1..1	SHALL		<a href="#">1129-30573</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
encounter	1..1	SHALL		<a href="#">1129-30574</a>	<a href="#">Last Physical Overnight Location Encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.220:2014-12-01)</a>

Use nullFlavor="NA" where the last physical overnight location is not applicable.

1. **MAY** contain zero or one [0..1] @nullFlavor="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008 **STATIC**) (CONF:1129-30558).
2. **SHALL** contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1129-30564).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1129-30565).
4. **SHALL** contain exactly one [1..1] templateId (CONF:1129-30560) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.227" (CONF:1129-30567).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30570).
5. **SHALL** contain exactly one [1..1] code (CONF:1129-30562).

- a. This code **SHALL** contain exactly one [1..1] @code="3002-3" Last physical overnight location of patient immediately prior to arrival into facility (CONF:1129-30569).
- b. This code **SHALL** contain exactly one [1..1]  
@codeSystem="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN  
urn:oid:2.16.840.1.113883.6.277) (CONF:1129-30571).

Where the last physical overnight location is not applicable, this entryRelationship will not be present.

6. **SHOULD** contain zero or one [0..1] entryRelationship (CONF:1129-30572).
  - a. The entryRelationship, if present, **SHALL** contain exactly one [1..1]  
@typeCode="COMP" Component (CodeSystem: HL7ActRelationshipType  
urn:oid:2.16.840.1.113883.5.1002) (CONF:1129-30573).
  - b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] Last Physical Overnight Location Encounter (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.5.6.220:2014-12-01) (CONF:1129-30574).

**Figure 114: Last Physical Overnight Location Act Example**

```
<act classCode="ACT" moodCode="EVN">
  <!-- Last Physical Overnight Location Act templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.227"
    extension="2014-12-01" />
  <code code="3002-3"
    displayName="Last physical overnight location of patient immediately prior to
      arrival into facility"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN" />
  <entryRelationship typeCode="COMP">
    <!-- Last Physical Overnight Location Encounter -->
    <encounter classCode="ENC" moodCode="EVN">
      <!-- CCD Encounter activity templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.49" />
      <!-- Last Physical Overnight Location Encounter templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.220"
        extension="2014-12-01" />
      ...
    </encounter>
  </entryRelationship>
</act>
```

**Figure 115: Last Physical Overnight Location Act - Not Applicable Example**

```
<act classCode="ACT" moodCode="EVN" nullFlavor="NA">
  <!-- Last Physical Overnight Location Act templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.227"
    extension="2014-12-01" />
  <code code="3002-3"
    displayName="Last physical overnight location of patient immediately prior to
      arrival into facility"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN" />
</act>
```

### 3.70 Last Physical Overnight Location Encounter

```
[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.220:2014-12-01
(closed)]
```

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**Table 339: Last Physical Overnight Location Encounter Contexts**

Contained By:	Contains:
<a href="#">Last Physical Overnight Location Act</a> (optional)	

This template represents an encounter at the last physical overnight location of the patient immediately prior to his or her arrival into the facility. The type of encounter can be either "IMP" (inpatient encounter) or "HH" (home health) depending on the last location; the location participant records the type of the last overnight location. If the last physical overnight location is unknown code will be nullFlavor="UNK".

**Table 340: Last Physical Overnight Location Encounter Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.220:2014-12-01)					
@classCode	1..1	SHALL		<a href="#">1129-30271</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">1129-30272</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1129-30493</a>	
@root	1..1	SHALL		<a href="#">1129-30494</a>	2.16.840.1.113883.10.20.22.4.49
templateId	1..1	SHALL		<a href="#">1129-30495</a>	
@root	1..1	SHALL		<a href="#">1129-30496</a>	2.16.840.1.113883.10.20.5.6.220
@extension	1..1	SHALL		<a href="#">1129-30497</a>	2014-12-01
id	1..*	SHALL		<a href="#">1129-30256</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-30263</a>	NA
code	1..1	SHALL		<a href="#">1129-30257</a>	urn:oid:2.16.840.1.113883.10.20.5.9.3 (NHSNLastLocationEncounterTypeCode)
@nullFlavor	0..1	MAY		<a href="#">1129-30593</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK
effectiveTime	1..1	SHALL		<a href="#">1129-30258</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-30265</a>	NA
participant	0..1	SHOULD		<a href="#">1129-30260</a>	
@typeCode	1..1	SHALL		<a href="#">1129-30270</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">1129-30261</a>	
@classCode	1..1	SHALL		<a href="#">1129-30269</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC
code	1..1	SHALL		<a href="#">1129-30262</a>	
@code	1..1	SHALL		<a href="#">1129-30482</a>	urn:oid:2.16.840.1.114222.4.11.7233 (NHSNPreviousPatientLocation)

1. Conforms to Encounter Activities template (identifier:  
urn:oid:2.16.840.1.113883.10.20.22.4.49).
2. **SHALL** contain exactly one [1..1] **@classCode**="ENC" Encounter (CodeSystem: HL7ActClass  
urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1129-30271).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood  
urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1129-30272).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-30493) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.49"  
(CONF:1129-30494).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-30495) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.220"  
(CONF:1129-30496).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-12-01" (CONF:1129-30497).
6. **SHALL** contain at least one [1..\*] **id** (CONF:1129-30256).
  - a. Such ids **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:1129-30263).

If the last physical overnight location was a nursing home/skilled nursing facility or other inpatient healthcare setting, the encounter code will be "IMP". If the last physical overnight location is a personal residence/residential care, then the encounter code will be "HH". If the last physical overnight location is unknown use nullFlavor="UNK".

7. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet  
[NHSNLastLocationEncounterTypeCode](#) urn:oid:2.16.840.1.113883.10.20.5.9.3  
**DYNAMIC** (CONF:1129-30257).
  - a. This code **MAY** contain zero or one [0..1] **@nullFlavor**="UNK" Unknown  
(CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008)  
(CONF:1129-30593).
8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1129-30258).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:1129-30265).

If the last physical overnight location is unknown, this participant will not be present.

9. **SHOULD** contain zero or one [0..1] **participant** (CONF:1129-30260).
  - a. The participant, if present, **SHALL** contain exactly one [1..1] **@typeCode**="LOC"  
Location (CodeSystem: HL7ParticipationType  
urn:oid:2.16.840.1.113883.5.90) (CONF:1129-30270).
  - b. The participant, if present, **SHALL** contain exactly one [1..1] **participantRole**  
(CONF:1129-30261).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode**="SDLOC"  
Service Delivery Location (CodeSystem: HL7EntityClass  
urn:oid:2.16.840.1.113883.5.41) (CONF:1129-30269).
    - ii. This participantRole **SHALL** contain exactly one [1..1] **code** (CONF:1129-30262).
      1. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be  
selected from ValueSet [NHSNPreviousPatientLocation](#)

urn:oid:2.16.840.1.114222.4.11.7233 **DYNAMIC** (CONF:1129-30482).

**Table 341: NHSNLastLocationEncounterTypeCode**

Value Set: NHSNLastLocationEncounterTypeCode urn:oid:2.16.840.1.113883.10.20.5.9.3 (Clinical Focus: Last physical overnight location of patient immediately prior to arrival into facility for NHSN reporting purposes),(Data Element Scope: A code identifying the type of encounter of the last physical oversight location for the patient.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.3/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.3/expansion</a>			
Code	Code System	Code System OID	Print Name
HH	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	home health
IMP	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	inpatient encounter

**Table 342: NHSNPreviousPatientLocation**

Value Set: NHSNPreviousPatientLocation urn:oid:2.16.840.1.114222.4.11.7233 (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the previous location of patient immediately prior to arrival at the facility.),(Data Element Scope: A code identifying the type of location the was previously located prior to arrival at the current facility.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7233/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7233/expansion</a>			
Code	Code System	Code System OID	Print Name
3005-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.27 7	Nursing Home/Skilled Nursing Facility
3006-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.27 7	Other inpatient healthcare setting (e.g., Acute Care Hospital, LTAC, Rehabilitation, etc.)
3007-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.27 7	Personal residence/residential care

**Figure 116: Last Physical Overnight Location Encounter Example**

```
<encounter classCode="ENC" moodCode="EVN">
  <!-- CCD Encounter activity templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.49" />
  <!-- Last Physical Overnight Location Encounter templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.220"
    extension="2014-12-01" />

  <id nullFlavor="NA" />
  <!-- If the last physical overnight location was a nursing home/skilled nursing
    facility or other inpatient healthcare setting, the encounter code will be
    "IMP". If the last physical overnight location is a personal
    residence/residential care then the encounter code will be "HH". -->
  <code code="HH"
    displayName="home health"
    codeSystem="2.16.840.1.113883.5.4"
    codeSystemName="ActCode" />

  <effectiveTime nullFlavor="NA" />

  <participant typeCode="LOC">
    <participantRole classCode="SDLOC">
      <code code="3007-2"
        displayName="Personal Residence/Residential Care"
        codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN" />
    </participantRole>
  </participant>
</encounter>
```

**Figure 117: Last Physical Overnight Location Encounter - Unknown Example**

```
<encounter classCode="ENC" moodCode="EVN">
  <!-- C-CDA Encounter Activity templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.49" />
  <!-- Last Physical Overnight Location Encounter templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.220"
    extension="2014-12-01" />
  <id nullFlavor="NA" />
  <!-- The last physical overnight location is unknown -->
  <code nullFlavor="UNK" />
  <effectiveTime nullFlavor="NA" />
</encounter>
```

### 3.71 Location Within Facility Encounter

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.262:2019-04-01 (closed)]

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**Table 343: Location Within Facility Encounter Contexts**

Contained By:	Contains:
<a href="#">Encounters Section in a LOS/Men Denominator</a> (required)	

This template represents an encounter at a location within the facility. The participation/participantRole/code contains the patient's location within the facility, the date admitted or transferred to that location is recorded in effectiveTime/low, the disposition of the infant is contained in sdct:dischargeDispositionCode and, if the infant was discharged, transferred, or expired, the date on which this occurred is recorded in effectiveTime/high. If the infant had no location change, no date is recorded.



**Table 344: Location Within Facility Encounter Constraints Overview**

<b>XPath</b>	<b>Card.</b>	<b>Verb</b>	<b>Data Type</b>	<b>CONF#</b>	<b>Value</b>
encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.262:2019-04-01)					
@classCode	1..1	SHALL		<a href="#">4395-30839</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">4395-30840</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">4395-30826</a>	
@root	1..1	SHALL		<a href="#">4395-30835</a>	2.16.840.1.113883.10.20.22.4.49
templateId	1..1	SHALL		<a href="#">4395-30830</a>	
@root	1..1	SHALL		<a href="#">4395-30841</a>	2.16.840.1.113883.10.20.5.6.262
@extension	1..1	SHALL		<a href="#">4395-30842</a>	2019-04-01
id	1..*	SHALL		<a href="#">4395-30823</a>	
@nullFlavor	1..1	SHALL		<a href="#">4395-30831</a>	NA
code	1..1	SHALL		<a href="#">4395-30824</a>	
@code	1..1	SHALL		<a href="#">4395-30832</a>	IMP
@codeSystem	1..1	SHALL		<a href="#">4395-30833</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
effectiveTime	1..1	SHALL		<a href="#">4395-30825</a>	
low	1..1	SHALL		<a href="#">4395-30843</a>	
high	0..1	MAY		<a href="#">4395-30844</a>	
sdct:dischargeDispositionCode	1..1	SHALL		<a href="#">4395-30845</a>	urn:oid:2.16.840.1.113883.10.20.5.9.30 (NHSNLOS/MENDischargeDisposition)
participant	1..1	SHALL		<a href="#">4395-30827</a>	
@typeCode	1..1	SHALL		<a href="#">4395-30838</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">4395-30828</a>	
@classCode	1..1	SHALL		<a href="#">4395-</a>	urn:oid:2.16.840.1.113883.5.4

XPath	Card.	Verb	Data Type	CONF#	Value
				<a href="#">30837</a>	1 (HL7EntityClass) = SDLOC
id	1..1	SHALL		<a href="#">4395-30947</a>	
@root	1..1	SHALL		<a href="#">4395-30948</a>	
@extension	1..1	SHALL		<a href="#">4395-30949</a>	
code	1..1	SHALL		<a href="#">4395-30829</a>	urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode)

1. Conforms to Encounter Activities template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.49).
2. **SHALL** contain exactly one [1..1] **@classCode**="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4395-30839).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4395-30840).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-30826) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.49" (CONF:4395-30835).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-30830) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.262" (CONF:4395-30841).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30842).
6. **SHALL** contain at least one [1..\*] **id** (CONF:4395-30823).
  - a. Such ids **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:4395-30831).
7. **SHALL** contain exactly one [1..1] **code** (CONF:4395-30824).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="IMP" inpatient encounter (CONF:4395-30832).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4395-30833).
8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4395-30825).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:4395-30843).  
Note: Date Admitted or Transferred to Location

If the infant was discharged, transferred, or expired, the date on which this occurred is recorded in effectiveTime/high. If the infant had no location change, no date is recorded in effectiveTime/high.

- b. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:4395-30844).  
Note: Date of discharge, transfer, or death

9. **SHALL** contain exactly one [1..1] **sdtc:dischargeDispositionCode**, which **SHALL** be selected from ValueSet [NHSNLOS/MENDischargeDisposition](#) urn:oid:2.16.840.1.113883.10.20.5.9.30 **DYNAMIC** (CONF:4395-30845).  
Note: Disposition of infant
10. **SHALL** contain exactly one [1..1] **participant** (CONF:4395-30827).
- This participant **SHALL** contain exactly one [1..1] **@typeCode="LOC"** Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4395-30838).
  - This participant **SHALL** contain exactly one [1..1] **participantRole** (CONF:4395-30828).
    - This participantRole **SHALL** contain exactly one [1..1] **@classCode="SDLOC"** Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4395-30837).
    - This participantRole **SHALL** contain exactly one [1..1] **id** (CONF:4395-30947).  
Note: Location within facility

The value of **@root** must be the NHSN assigned Facility OID.

- This id **SHALL** contain exactly one [1..1] **@root** (CONF:4395-30948).

The value of **@extension** must be a value registered with NHSN.

- This id **SHALL** contain exactly one [1..1] **@extension** (CONF:4395-30949).
- This participantRole **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNHealthcareServiceLocationCode](#) urn:oid:2.16.840.1.113883.13.19 **DYNAMIC** (CONF:4395-30829).  
Note: Location type

**Table 345: NHSNLOS/MENDischargeDisposition**

Value Set: NHSNLOS/MENDischargeDisposition urn:oid:2.16.840.1.113883.10.20.5.9.30 (Clinical Focus: NHSN surveillance reporting: discharge disposition of infant),(Data Element Scope: A code identifying the discharge disposition for the infant.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.30/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.30/expansion</a>			
Code	Code System	Code System OID	Print Name
1311-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	No location change
183665006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Discharged from hospital (finding)
266751003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Transferred from department (finding)
371828006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Patient deceased during stay (discharge status = dead) (finding)

**Figure 118: Location Within Facility Encounter Example**

```

<encounter classCode="ENC" moodCode="EVN">
  <!-- [C-CDA R1.1] Encounter activity -->
  <templateId root="2.16.840.1.113883.10.20.22.4.49" />
  <!-- [HAI R3D4] Location Within Facility Encounter -->
  <templateId root="2.16.840.1.113883.10.20.5.6.262" extension="2019-04-01" />
  <id nullFlavor="NA" />
  <code code="IMP"
    displayName="inpatient encounter"
    codeSystem="2.16.840.1.113883.5.4"
    codeSystemName="HL7 ActCode" />
  <effectiveTime>
    <!-- Date admitted or transferred to this location -->
    <low value="20190101" />
    <!-- Date discharged or transferred from this location
         (this is the date that that patient was transferred from this location)
         If the infant had no location change, no date is recorded in effectiveTime/high --
    >
    <high value="20190102" />
  </effectiveTime>
  <sdct:dischargeDispositionCode code="266751003"
    displayName="Transferred from department (finding)"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT" />
  <participant typeCode="LOC">
    <participantRole classCode="SDLOC">
      <!-- Location within facility -->
      <id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="NICU" />
      <!-- Location type -->
      <code codeSystem="2.16.840.1.113883.6.259"
        codeSystemName="HL7 HealthCareServiceLocation"
        code="1039-7"
        displayName="Neonatal Critical care (Level II/III)" />
    </participantRole>
  </participant>
</encounter>

```

### 3.72 Loss of Vascular Access Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.203 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
Release 2, DSTU 1 - US Realm

**Table 346: Loss of Vascular Access Observation Contexts**

Contained By:	Contains:
<a href="#">Details Section in an Evidence of Infection (Dialysis) Report (V6)</a> (required)	

This template records whether or not a patient on dialysis lost vascular access as a result of the infection (dialysis event). It is based on the C-CDA Problem Observation template.

When the patient had loss of vascular access, set the value of @negationInd to false. When the patient did not have loss of vascular access, set the value of @negationInd to true. When it is not known if the patient had loss of vascular access, set the value of @nullFlavor to "UNK".

**Table 347: Loss of Vascular Access Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.203)					
@nullFlavor	0..1	MAY		<a href="#">1101-30214</a>	UNK
@classCode	1..1	SHALL		<a href="#">1101-30205</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1101-30206</a>	EVN
@negationInd	0..1	SHOULD		<a href="#">1101-30216</a>	
templateId	1..1	SHALL		<a href="#">1101-30301</a>	
@root	1..1	SHALL		<a href="#">1101-30302</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">1101-30207</a>	
@root	1..1	SHALL		<a href="#">1101-30208</a>	2.16.840.1.113883.10.20.5.6.203
id	1..1	SHALL		<a href="#">1101-30209</a>	
@nullFlavor	1..1	SHALL		<a href="#">1101-30224</a>	NA
code	1..1	SHALL		<a href="#">1101-30210</a>	
@code	1..1	SHALL		<a href="#">1101-30218</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1101-30219</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1101-30211</a>	
@code	1..1	SHALL		<a href="#">1101-30212</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">1101-30213</a>	
@code	1..1	SHALL		<a href="#">1101-30220</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2325-9
@codeSystem	1..1	SHALL		<a href="#">1101-30221</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **MAY** contain zero or one [0..1] @nullFlavor="UNK" (CONF:1101-30214).
  - a. If it is not known whether the patient had loss of vascular access, the value of @nullFlavor **SHALL** be UNK. If the value of @nullFlavor is set to UNK then the value of @negationInd **SHALL NOT** be set (CONF:1101-30215).
3. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1101-30205).
4. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:1101-30206).
5. **SHOULD** contain zero or one [0..1] @negationInd (CONF:1101-30216).
  - a. If the patient had loss of vascular access, the value of @negationInd **SHALL** be false. If the patient did not have loss of vascular access, the value of @negationInd **SHALL** be true. If the value of @negationInd is set then the value of @nullFlavor **SHALL NOT** be set (CONF:1101-30217).
6. **SHALL** contain exactly one [1..1] templateId (CONF:1101-30301) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:1101-30302).
7. **SHALL** contain exactly one [1..1] templateId (CONF:1101-30207) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.203" (CONF:1101-30208).
8. **SHALL** contain exactly one [1..1] id (CONF:1101-30209).
  - a. This id **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CONF:1101-30224).
9. **SHALL** contain exactly one [1..1] code (CONF:1101-30210).
  - a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:1101-30218).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1101-30219).
10. **SHALL** contain exactly one [1..1] statusCode (CONF:1101-30211).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1101-30212).
11. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:1101-30213).
  - a. This value **SHALL** contain exactly one [1..1] @code="2325-9" Loss of vascular access (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1101-30220).
  - b. This value **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1101-30221).

**Figure 119: Loss of Vascular Access Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!--
    If the patient had loss of vascular access,
    the value of @negationInd SHALL be false.
    If the patient did not have loss of vascular access,
    the value of @negationInd SHALL be true.
    If the value of @negationInd is set then the value of
    @nullFlavor SHALL NOT be set.

    If it is not known whether the patient had loss of vascular access,
    the value of @nullFlavor SHALL be "UNK" as follows:
    <observation classCode="OBS" moodCode="EVN" nullFlavor="UNK">

    If the value of @nullFlavor is set to "UNK" then the value of
    @negationInd SHALL NOT be set.
  -->
  <!-- C-CDA Problem Observation Type -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4" />
  <!-- Loss of Vascular Access Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.203" />
  <id nullFlavor="NA" />
  <code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION" />
  <statusCode code="completed" />
  <value xsi:type="CD"
    code="2325-9"
    displayName="Loss of vascular access"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN" />
</observation>
```

### 3.73 MDRO/CDI Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.142 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
Release 1 - US Realm

**Table 348: MDRO/CDI Observation Contexts**

Contained By:	Contains:
<a href="#">Findings Section in an Infection-Type Report</a> (optional)	

This observation records whether the primary infection being reported was caused by a multi-drug-resistant organism (MDRO). It is a general or summary observation not associated with any individual pathogen in the Findings Section.

If the infection organism was multi-drug resistant, set the value of @negationInd to false. If the infection organism was not multi-drug resistant, set the value of @negationInd to true.

**Table 349: MDRO/CDI Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.142)					
@classCode	1..1	SHALL		<a href="#">86-21157</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-21158</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-21159</a>	
templateId	1..1	SHALL		<a href="#">86-28257</a>	
@root	1..1	SHALL		<a href="#">86-28258</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-21234</a>	
@root	1..1	SHALL		<a href="#">86-21235</a>	2.16.840.1.113883.10.20.5.6.142
id	1..1	SHALL		<a href="#">86-21236</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22769</a>	NA
code	1..1	SHALL		<a href="#">86-21160</a>	
@code	1..1	SHALL		<a href="#">86-21161</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28382</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-21162</a>	
@code	1..1	SHALL		<a href="#">86-21163</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-21164</a>	
@code	1..1	SHALL		<a href="#">86-21165</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2318-4

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21157).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21158).
4. **SHALL** contain exactly one [1..1] @negationInd (CONF:86-21159).
5. **SHALL** contain exactly one [1..1] templateId (CONF:86-28257) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28258).
6. **SHALL** contain exactly one [1..1] templateId (CONF:86-21234) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.142" (CONF:86-21235).
7. **SHALL** contain exactly one [1..1] id (CONF:86-21236).
  - a. This id **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22769).



8. **SHALL** contain exactly one [1..1] **code** (CONF:86-21160).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:86-21161).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28382).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-21162).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-21163).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:86-21164).
  - a. This value **SHALL** contain exactly one [1..1] **@code**="2318-4" MDRO Infection or C.difficile infection (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277 **STATIC**) (CONF:86-21165).

**Figure 120: MDRO Observation Example**

```
<!-- The observation is not negated, i.e. the infection was MDRO or CDI -->
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI MDRO/CDI Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.142"/>
  <id nullFlavor="NA"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="2318-4"
    displayName="MDRO Infection or C.difficile infection"/>
</observation>
```

### 3.74 Mechanical Ventilation Initiation Act

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.244:2017-04-01  
(closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
Release 3, STU 2 – US Realm

**Table 350: Mechanical Ventilation Initiation Act Contexts**

Contained By:	Contains:
<a href="#">Risk Factors Section in a VAE Report</a> (required)	

This clinical statement records the location of the patient and the date when mechanical ventilation was initiated.

**Table 351: Mechanical Ventilation Initiation Act Constraints Overview**

<b>XPath</b>	<b>Card.</b>	<b>Verb</b>	<b>Data Type</b>	<b>CONF#</b>	<b>Value</b>
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.244:2017-04-01)					
@classCode	1..1	SHALL		<a href="#">3311-28378</a>	ACT
@moodCode	1..1	SHALL		<a href="#">3311-28379</a>	EVN
templateId	1..1	SHALL		<a href="#">3311-28375</a>	
@root	1..1	SHALL		<a href="#">3311-28390</a>	2.16.840.1.113883.10.20.22.4.12
templateId	1..1	SHALL		<a href="#">3311-28377</a>	
@root	1..1	SHALL		<a href="#">3311-28392</a>	2.16.840.1.113883.10.20.5.6.244
@extension	1..1	SHALL		<a href="#">3311-28393</a>	2017-04-01
id	1..1	SHALL		<a href="#">3311-28376</a>	
@nullFlavor	1..1	SHALL		<a href="#">3311-28391</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA
code	1..1	SHALL		<a href="#">3311-28367</a>	
@code	1..1	SHALL		<a href="#">3311-28380</a>	2341-2
@codeSystem	1..1	SHALL		<a href="#">3311-28381</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
statusCode	1..1	SHALL		<a href="#">3311-28368</a>	
@code	1..1	SHALL		<a href="#">3311-28382</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">3311-28369</a>	
low	1..1	SHALL		<a href="#">3311-28383</a>	
participant	1..1	SHALL		<a href="#">3311-28370</a>	
@typeCode	1..1	SHALL		<a href="#">3311-28384</a>	LOC
participantRole	1..1	SHALL		<a href="#">3311-28371</a>	
@classCode	1..1	SHALL		<a href="#">3311-28385</a>	SDLOC
id	1..1	SHALL		<a href="#">3311-28372</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@root	1..1	SHALL		<a href="#">3311-28373</a>	
@extension	1..1	SHALL		<a href="#">3311-28387</a>	
playingEntity	1..1	SHALL		<a href="#">3311-28374</a>	
@classCode	1..1	SHALL		<a href="#">3311-28388</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PLC
code	1..1	SHALL		<a href="#">3311-28389</a>	urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode)

1. Conforms to Procedure Activity Act template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.12).
2. **SHALL** contain exactly one [1..1] @classCode="ACT" (CONF:3311-28378).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:3311-28379).
4. **SHALL** contain exactly one [1..1] templateId (CONF:3311-28375) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.12" (CONF:3311-28390).
5. **SHALL** contain exactly one [1..1] templateId (CONF:3311-28377) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.244" (CONF:3311-28392).
  - b. **SHALL** contain exactly one [1..1] @extension="2017-04-01" (CONF:3311-28393).
6. **SHALL** contain exactly one [1..1] id (CONF:3311-28376).
  - a. This id **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:3311-28391).
7. **SHALL** contain exactly one [1..1] code (CONF:3311-28367).
  - a. This code **SHALL** contain exactly one [1..1] @code="2341-2" Mechanical ventilation initiation (CONF:3311-28380).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3311-28381).
8. **SHALL** contain exactly one [1..1] statusCode (CONF:3311-28368).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3311-28382).
9. **SHALL** contain exactly one [1..1] effectiveTime (CONF:3311-28369).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] low (CONF:3311-28383).
10. **SHALL** contain exactly one [1..1] participant (CONF:3311-28370).
  - a. This participant **SHALL** contain exactly one [1..1] @typeCode="LOC" (CONF:3311-28384).

- b. This participant **SHALL** contain exactly one [1..1] **participantRole** (CONF:3311-28371).
  - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode="SDLOC"** (CONF:3311-28385).
  - ii. This participantRole **SHALL** contain exactly one [1..1] **id** (CONF:3311-28372).
    1. This id **SHALL** contain exactly one [1..1] **@root** (CONF:3311-28373).
      - a. This id/**@root** **SHALL** contain the facility identifier (CONF:3311-28386).
    2. This id **SHALL** contain exactly one [1..1] **@extension** (CONF:3311-28387).
  - iii. This participantRole **SHALL** contain exactly one [1..1] **playingEntity** (CONF:3311-28374).
    1. This playingEntity **SHALL** contain exactly one [1..1] **@classCode="PLC"** (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:3311-28388).
    2. This playingEntity **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNHealthcareServiceLocationCode](#) urn:oid:2.16.840.1.113883.13.19 **DYNAMIC** (CONF:3311-28389).

**Figure 121: Mechanical Ventilation Initiation Example**

```

<act classCode="ACT" moodCode="EVN">
  <!-- [C-CDA R1.1] Procedure Activity Act -->
  <templateId root="2.16.840.1.113883.10.20.22.4.12" />
  <!-- [HAI] Mechanical Ventilation Initiation Act -->
  <templateId root="2.16.840.1.113883.10.20.5.6.244" extension="2017-04-01" />
  <id nullFlavor="NA" />
  <code code="2341-2"
    displayName="Mechanical ventilation initiation"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN" />
  <statusCode code="completed" />
  <effectiveTime>
    <low value="20170112" />
  </effectiveTime>
  <participant typeCode="LOC">
    <participantRole classCode="SDLOC">
      <!-- root = facility assigned OID;
      extension = NHSN location ("your code") -->
      <id root="2.16.840.1.114222.4.3.2.11" extension="123456" />
      <playingEntity classCode="PLC">
        <code code="1029-8"
          displayName="Medical/Surgical Critical Care"
          codeSystem="2.16.840.1.113883.6.259"
          codeSystemName="HL7 HealthCareServiceLocation" />
      </playingEntity>
    </participantRole>
  </participant>
</act>

```

### 3.75 Neurogenic Bladder Diagnosis

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.306:2025-05-01 (closed)]

Draft as part of NHSN Healthcare Associated Infection Reports Release 4, STU 4 - US Realm

**Table 352: Neurogenic Bladder Diagnosis Contexts**

Contained By:	Contains:
<a href="#">Neurogenic Bladder Observation</a> (optional)	

This clinical statement represents a neurogenic bladder diagnosis.

**Table 353: Neurogenic Bladder Diagnosis Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.306:2025-05-01)					
@classCode	1..1	SHALL		<a href="#">5566-31169</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">5566-31170</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">5566-31154</a>	
@root	1..1	SHALL		<a href="#">5566-31160</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">5566-31159</a>	
@root	1..1	SHALL		<a href="#">5566-31167</a>	2.16.840.1.113883.10.20.5.6.306
@extension	1..1	SHALL		<a href="#">5566-31168</a>	2025-05-01
id	1..1	SHALL		<a href="#">5566-31155</a>	
@nullFlavor	1..1	SHALL		<a href="#">5566-31161</a>	NA
code	1..1	SHALL		<a href="#">5566-31156</a>	
@code	1..1	SHALL	CS	<a href="#">5566-31162</a>	55607006
@codeSystem	1..1	SHALL		<a href="#">5566-31163</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">5566-31157</a>	
@code	1..1	SHALL		<a href="#">5566-31164</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">5566-31158</a>	urn:oid:2.16.840.1.113762.1.4.1190.94 (NHSNNeurogenicBladder)

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:5566-31169).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:5566-31170).
4. **SHALL** contain exactly one [1..1] templateId (CONF:5566-31154) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:5566-31160).

5. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-31159) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.306" (CONF:5566-31167).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-31168).
6. **SHALL** contain exactly one [1..1] **id** (CONF:5566-31155).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:5566-31161).
7. **SHALL** contain exactly one [1..1] **code** (CONF:5566-31156).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="55607006" Problem (CONF:5566-31162).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:5566-31163).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:5566-31157).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:5566-31164).
9. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", where the code **SHALL** be selected from ValueSet [NHSNNeurogenicBladder](#) urn:oid:2.16.840.1.113762.1.4.1190.94 **DYNAMIC** (CONF:5566-31158).

**Table 354: NHSNNeurogenicBladder**

Value Set: NHSNNeurogenicBladder urn:oid:2.16.840.1.113762.1.4.1190.94 (Clinical Focus: In tandem with Spinal Code Injury (SCI) diagnosis codes, these diagnostic codes define Spinal Cord Injury - Neurogenic Bladder (SCI-NB) for NHSN surveillance purposes.),(Data Element Scope: Diagnosis code),(Inclusion Criteria: n/a),(Exclusion Criteria: n/a)  This value set was imported on 3/28/2025 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1190.94/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1190.94/expansion</a>			
Code	Code System	Code System OID	Print Name
N31.0	ICD-10-CM	urn:oid:2.16.840.1.113883.6.90	Uninhibited neuropathic bladder, not elsewhere classified
N31.1	ICD-10-CM	urn:oid:2.16.840.1.113883.6.90	Reflex neuropathic bladder, not elsewhere classified
N31.2	ICD-10-CM	urn:oid:2.16.840.1.113883.6.90	Flaccid neuropathic bladder, not elsewhere classified
N31.8	ICD-10-CM	urn:oid:2.16.840.1.113883.6.90	Other neuromuscular dysfunction of bladder
N31.9	ICD-10-CM	urn:oid:2.16.840.1.113883.6.90	Neuromuscular dysfunction of bladder, unspecified

**Figure 122: Neurogenic Bladder Diagnosis Example**

```
<observation moodCode="EVN" classCode="OBS" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4" />
  <!-- [HAI R4D4] Neurogenic Bladder Diagnosis -->
  <templateId root="2.16.840.1.113883.10.20.5.6.306" extension="2025-05-01" />
  <id nullFlavor="NA" />
  <code code="55607006"
    displayName="Problem (finding)"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT" />
  <statusCode code="completed" />
  <value xsi:type="CD" code="N31.0"
    codeSystem="2.16.840.1.113883.6.90"
    codeSystemName="ICD10CM"
    displayName="Uninhibited neuropathic bladder, not elsewhere classified" />
</observation>
```

### 3.76 Neurogenic Bladder Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.304:2025-05-01  
(closed)]

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**Table 355: Neurogenic Bladder Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a UTI Report (V2)</a> (required)	<a href="#">Neurogenic Bladder Diagnosis</a> (optional) <a href="#">Spinal Cord Injury Diagnosis</a> (optional)

This clinical statement represents whether the patient has neurogenic bladder. If the patient does have neurogenic bladder, set the value of @negationInd to false. If the patient does not have neurogenic bladder, set the value of @negationInd to true.

If the patient does have neurogenic bladder (@negationInd=false), both the Neurogenic Bladder Diagnosis AND the Spinal Cord Injury Diagnosis SHALL be present.



**Table 356: Neurogenic Bladder Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.304:2025-05-01)					
@classCode	1..1	SHALL		<a href="#">5566-31128</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">5566-31129</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">5566-31130</a>	
templateId	1..1	SHALL		<a href="#">5566-31122</a>	
@root	1..1	SHALL		<a href="#">5566-31131</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">5566-31127</a>	
@root	1..1	SHALL		<a href="#">5566-31137</a>	2.16.840.1.113883.10.20.5.6.304
@extension	1..1	SHALL		<a href="#">5566-31138</a>	2025-05-01
id	1..1	SHALL		<a href="#">5566-31123</a>	
@nullFlavor	1..1	SHALL		<a href="#">5566-31132</a>	NA
code	1..1	SHALL		<a href="#">5566-31124</a>	
@code	1..1	SHALL	CS	<a href="#">5566-31133</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">5566-31134</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">5566-31125</a>	
@code	1..1	SHALL		<a href="#">5566-31135</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">5566-31126</a>	
@code	1..1	SHALL		<a href="#">5566-31136</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 398064005
@codeSystem	1..1	SHALL		<a href="#">5566-31139</a>	2.16.840.1.113883.6.96
entryRelationship	0..1	SHOULD		<a href="#">5566-31186</a>	
@typeCode	1..1	SHALL		<a href="#">5566-31190</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">5566-</a>	<a href="#">Neurogenic Bladder Diagnosis</a>

XPath	Card.	Verb	Data Type	CONF#	Value
				<a href="#">31187</a>	<a href="#">(identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.306:2025-05-01)</a>
entryRelationship	0..1	SHOULD		<a href="#">5566-31188</a>	
@typeCode	1..1	SHALL		<a href="#">5566-31191</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">5566-31189</a>	<a href="#">Spinal Cord Injury Diagnosis (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.307:2025-05-01)</a>

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:5566-31128).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:5566-31129).

If the patient does have neurogenic bladder, set the value of @negationInd to false. If the patient does not have neurogenic bladder, set the value of @negationInd to true.

4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:5566-31130).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-31122) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.4" (CONF:5566-31131).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-31127) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.304" (CONF:5566-31137).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-31138).
7. **SHALL** contain exactly one [1..1] **id** (CONF:5566-31123).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:5566-31132).
8. **SHALL** contain exactly one [1..1] **code** (CONF:5566-31124).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:5566-31133).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:5566-31134).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:5566-31125).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:5566-31135).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:5566-31126).

- a. This value **SHALL** contain exactly one [1..1] @code="398064005" Neurogenic urinary bladder (finding) (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:5566-31136).
- b. This value **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CONF:5566-31139).

If the patient does have neurogenic bladder (@negationInd=false), the Neurogenic Bladder Diagnosis **SHALL** be present.

11. **SHOULD** contain zero or one [0..1] **entryRelationship** (CONF:5566-31186) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:5566-31190).
  - b. **SHALL** contain exactly one [1..1] [Neurogenic Bladder Diagnosis](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.306:2025-05-01) (CONF:5566-31187).

If the patient does have neurogenic bladder (@negationInd=false), the Spinal Cord Injury Diagnosis **SHALL** be present.

12. **SHOULD** contain zero or one [0..1] **entryRelationship** (CONF:5566-31188) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:5566-31191).
  - b. **SHALL** contain exactly one [1..1] [Spinal Cord Injury Diagnosis](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.307:2025-05-01) (CONF:5566-31189).
13. If the patient does have neurogenic bladder (@negationInd=false), both the Neurogenic Bladder Diagnosis AND the Spinal Cord Injury Diagnosis **SHALL** be present (CONF:5566-31192).

**Figure 123: Neurogenic Bladder Observation Example**

```
<!-- This clinical statement represents whether the patient has neurogenic bladder.
      If the patient does have neurogenic bladder, set the value of @negationInd to false.
      If the patient does not have neurogenic bladder, set the value of @negationInd to
      true.

      If the patient does have neurogenic bladder (@negationInd=false),
      both the Neurogenic Bladder Diagnosis AND the Spinal Cord Injury Diagnosis SHALL be
      present
-->
<observation moodCode="EVN" classCode="OBS" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4" />
  <!-- HAI Neurogenic Bladder Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.304" extension="2025-05-01" />
  <id nullFlavor="NA" />
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
  <statusCode code="completed" />
  <value xsi:type="CD" code="398064005"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"
    displayName="Neurogenic urinary bladder (finding)" />
  <entryRelationship typeCode="COMP">
    <observation moodCode="EVN" classCode="OBS" negationInd="false">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4" />
      <!-- [HAI R4D4] Neurogenic Bladder Diagnosis -->
      <templateId root="2.16.840.1.113883.10.20.5.6.306" extension="2025-05-01" />
      ...
    </observation>
  </entryRelationship>
  <entryRelationship typeCode="COMP">
    <observation moodCode="EVN" classCode="OBS" negationInd="false">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4" />
      <!-- [HAI R4D4] Spinal Cord Injury Diagnosis -->
      <templateId root="2.16.840.1.113883.10.20.5.6.307" extension="2025-05-01" />
      ...
    </observation>
  </entryRelationship>
</observation>
```

### 3.77 NHSN Comment

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01 (closed)]

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**Table 357: NHSN Comment Contexts**

Contained By:	Contains:
<a href="#">NHSN Comment Section</a> (required)	

A comment is free text information of less than 2000 characters. A comment can contain information that is relevant to the whole report (it is not specific to any section of a report).

**Table 358: NHSN Comment Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01)					
@classCode	1..1	SHALL		<a href="#">3311-87</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">3311-88</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">3311-79</a>	
@root	1..1	SHALL		<a href="#">3311-89</a>	2.16.840.1.113883.10.20.5.6.243
@extension	1..1	SHALL		<a href="#">3311-92</a>	2017-04-01
code	1..1	SHALL		<a href="#">3311-80</a>	
@code	1..1	SHALL		<a href="#">3311-90</a>	86467-8
@codeSystem	1..1	SHALL		<a href="#">3311-91</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
text	1..1	SHALL		<a href="#">3311-81</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3311-87).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3311-88).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3311-79) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.243" (CONF:3311-89).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2017-04-01" (CONF:3311-92).
4. **SHALL** contain exactly one [1..1] **code** (CONF:3311-80).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="86467-8" Report comment Narrative (CONF:3311-90).

- b. This code **SHALL** contain exactly one [1..1]  
`@codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC  
urn:oid:2.16.840.1.113883.6.1) (CONF:3311-91).`
5. **SHALL** contain exactly one [1..1] **text** (CONF:3311-81).
  - a. The length of the free text comment **SHALL** be less than 2000 characters (CONF:3311-93).

**Figure 124: NHSN Comment Example**

```
<act classCode="ACT" moodCode="EVN">
  <!-- [HAI R3D2] NHSN Comment -->
  <templateId root="2.16.840.1.113883.10.20.5.6.243" extension="2017-04-01" />
  <code code="86467-8"
    displayName="Report comment Narrative"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC" />
  <!-- Less than 2000 characters -->
  <text>NHSN text comment that is less than 2000 characters.</text>
</act>
```

### 3.78 NHSN COVID-19 Condition Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.270:2021-01-01 (closed)]

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**Table 359: NHSN COVID-19 Condition Observation (V2) Contexts**

Contained By:	Contains:
<a href="#">COVID-19 Section (V2)</a> (required)	

**NOTE:\*\*** This template represents a clinician's observation of whether a patient has or does not have a condition of COVID-19. It is not intended to replace lab results. This template is **ONLY** for use in NHSN HAI reporting.\*\*

This observation records whether the person had COVID-19 or did not have COVID-19.

If the person:

- **Did not have COVID-19:** set value to 1240591000000102 | Severe acute respiratory syndrome coronavirus 2 not detected (finding)
- **Had COVID-19:** set value to 840539006 | Disease caused by severe acute respiratory syndrome coronavirus 2 (disorder)

**Table 360: NHSN COVID-19 Condition Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.270:2021-01-01)					
@classCode	1..1	SHALL		<a href="#">4475-16</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4475-17</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">4475-18</a>	false
templateId	1..1	SHALL		<a href="#">4475-1</a>	
@root	1..1	SHALL		<a href="#">4475-7</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">4475-6</a>	
@root	1..1	SHALL		<a href="#">4475-14</a>	2.16.840.1.113883.10.20.5.6.270
@extension	1..1	SHALL		<a href="#">4475-15</a>	2021-01-01
id	1..1	SHALL		<a href="#">4475-2</a>	
@nullFlavor	1..1	SHALL		<a href="#">4475-8</a>	NA
code	1..1	SHALL		<a href="#">4475-3</a>	
@code	1..1	SHALL		<a href="#">4475-9</a>	55607006
@codeSystem	1..1	SHALL		<a href="#">4475-10</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">4475-4</a>	
@code	1..1	SHALL		<a href="#">4475-11</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">4475-5</a>	urn:oid:2.16.840.1.113883.10.20.5.9.40 (NHSN COVID19 Case Classification)

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4475-16).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4475-17).
4. **SHALL** contain exactly one [1..1] @negationInd="false" (CONF:4475-18).
5. **SHALL** contain exactly one [1..1] templateId (CONF:4475-1) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:4475-7).
6. **SHALL** contain exactly one [1..1] templateId (CONF:4475-6) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.270" (CONF:4475-14).
  - b. **SHALL** contain exactly one [1..1] @extension="2021-01-01" (CONF:4475-15).

7. **SHALL** contain exactly one [1..1] **id** (CONF:4475-2).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor="NA"** (CONF:4475-8).
8. **SHALL** contain exactly one [1..1] **code** (CONF:4475-3).
  - a. This code **SHALL** contain exactly one [1..1] **@code="55607006"** Problem (CONF:4475-9).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.96"** (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4475-10).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4475-4).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:4475-11).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"**, where the code **SHALL** be selected from ValueSet [NHSN COVID19 Case Classification](#) urn:oid:2.16.840.1.113883.10.20.5.9.40 **DYNAMIC** (CONF:4475-5).

**Table 361: NHSN COVID19 Case Classification**

Value Set: NHSN COVID19 Case Classification urn:oid:2.16.840.1.113883.10.20.5.9.40 (Clinical Focus: COVID-19 conditions associated with confirmed case status.),(Data Element Scope: Problem Observation code (CDA) or Condition code (FHIR). Used to identify patients with confirmed COVID-19.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 6/1/2021 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.40/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.40/expansion</a>			
Code	Code System	Code System OID	Print Name
1240591000000102	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Severe acute respiratory syndrome coronavirus 2 not detected (finding)
840539006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Disease caused by Severe acute respiratory syndrome coronavirus 2 (disorder)



**Figure 125: NHSN COVID-19 Condition Observation (V2) Example - Had COVID-19**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- [C-CDA R1.1] Problem Observation -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- [HAI R4D1] NHSN COVID-19 Condition Observation (V2) -->
  <templateId root="2.16.840.1.113883.10.20.5.6.270" extension="2021-01-01"/>
  <id nullFlavor="NA"/>
  <code code="55607006"
    displayName="Problem"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="840539006"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"
    displayName="Disease caused by severe acute respiratory syndrome coronavirus 2"/>
</observation>
```

**Figure 126: NHSN COVID-19 Condition Observation (V2) Example - Did not have COVID-19**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- [C-CDA R1.1] Problem Observation -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- [HAI R4D1] NHSN COVID-19 Condition Observation Example (V2) -->
  <templateId root="2.16.840.1.113883.10.20.5.6.270" extension="2021-01-01"/>
  <id nullFlavor="NA"/>
  <code code="55607006"
    displayName="Problem"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="1240591000000102"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"
    displayName="Severe acute respiratory syndrome coronavirus 2 not detected
(finding)"/>
</observation>
```

### 3.79 No Hemovigilance Adverse Reactions Reported This Month Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.232:2015-10-01 (closed)]

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**Table 362: No Hemovigilance Adverse Reactions Reported This Month Observation Contexts**

Contained By:	Contains:
<a href="#">Summary Data Section (HV) (V2)</a> (required)	

This clinical statement represents whether or not there were no hemovigilance adverse reactions reported this month.

If there were no hemovigilance adverse reactions reported this month, set the value of @negationInd to false, otherwise, set the value of @negationInd to true.

On the form from which this template is modeled, this datum is reported as a check box stating that there were no hemovigilance adverse reactions reported this month. Thus, this template reports a "negative" finding. To report that this check box was not checked is to say that it is not the case that no hemovigilance adverse reactions were reported this month, which is subtly different from stating that there were hemovigilance adverse reactions reported this month. Because we are reporting a "negative" finding, negating the statement necessitates some seemingly counter-intuitive logic as follows:

- No hemovigilance adverse reactions reported this month = ASSERTION + negationInd="false" (the assertion that there were no HV adverse reactions is not negated)
- Otherwise = ASSERTION + negationInd="true" (the assertion that there were no HV adverse reactions is negated).

**Table 363: No Hemovigilance Adverse Reactions Reported This Month Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.232:2015-10-01)					
@classCode	1..1	SHALL		<a href="#">1202-30632</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1202-30633</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">1202-30634</a>	
templateId	1..1	SHALL		<a href="#">1202-30627</a>	
@root	1..1	SHALL		<a href="#">1202-30635</a>	2.16.840.1.113883.10.20.5.6.232
@extension	1..1	SHALL		<a href="#">1202-30636</a>	2015-10-01
code	1..1	SHALL		<a href="#">1202-30624</a>	
@code	1..1	SHALL	CS	<a href="#">1202-30628</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1202-30629</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1202-30625</a>	
@code	1..1	SHALL		<a href="#">1202-30630</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">1202-30626</a>	
@code	1..1	SHALL		<a href="#">1202-30631</a>	3540-2
@codeSystem	1..1	SHALL		<a href="#">1202-30651</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1202-30632).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1202-30633).

If there were no hemovigilance adverse reactions reported this month, set the value of **@negationInd** to false. If there were hemovigilance adverse reactions reported this month, set the value of **@negationInd** to true.

3. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:1202-30634).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1202-30627) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.232" (CONF:1202-30635).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2015-10-01" (CONF:1202-30636).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1202-30624).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:1202-30628).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1202-30629).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1202-30625).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1202-30630).
7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:1202-30626).
  - a. This value **SHALL** contain exactly one [1..1] **@code**="3540-2" No hemovigilance adverse reactions reported this month (CONF:1202-30631).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1202-30651).

**Figure 127: No Hemovigilance Adverse Reactions Reported This Month Observation Example**

```

<!-- If there were no hemovigilance adverse reactions reported this month,
set the value of @negationInd to false.
If there were hemovigilance adverse reactions reported this month,
set the value of @negationInd to true. -->
<!-- There were no hemovigilance adverse reactions reported this month so
negationInd='false' -->
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- No Hemovigilance Adverse Reactions Reported This Month Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.232"
    extension="2015-10-01" />
  <code code="ASSERTION"
    codeSystem="2.16.840.1.113883.5.4" />
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="3540-2"
    displayName="No hemovigilance adverse reactions reported this month" />
</observation>

```

### 3.80 No Hemovigilance Incidents Reported This Month Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.233:2015-10-01 (closed)]

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**Table 364: No Hemovigilance Incidents Reported This Month Observation Contexts**

Contained By:	Contains:
<a href="#">Summary Data Section (HV) (V2)</a> (required)	

This clinical statement represents whether or not there were no hemovigilance incidents reported this month.

If there were no hemovigilance incidents reported this month, set the value of @negationInd to false, otherwise, set the value of @negationInd to true.

On the form from which this template is modeled, this datum is reported as a check box stating that there were no incidents reported this month. Thus, this template reports a "negative" finding. To report that this check box was not checked is to say that it is not the case that no hemovigilance incidents were reported this month, which is subtly different from stating that there were hemovigilance incidents reported this month. Because we are reporting a "negative" finding, negating the statement necessitates some seemingly counter-intuitive logic as follows:

- No hemovigilance incidents reported this month = ASSERTION + negationInd="false" (the assertion that there were no HV incidents is not negated)
- Otherwise = ASSERTION + negationInd="true" (the assertion that there were no HV incidents is negated).

**Table 365: No Hemovigilance Incidents Reported This Month Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.233:2015-10-01)					
@classCode	1..1	SHALL		<a href="#">1202-30647</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1202-30648</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">1202-30649</a>	
templateId	1..1	SHALL		<a href="#">1202-30640</a>	
@root	1..1	SHALL		<a href="#">1202-30645</a>	2.16.840.1.113883.10.20.5.6.233
@extension	1..1	SHALL		<a href="#">1202-30646</a>	2015-10-01
code	1..1	SHALL		<a href="#">1202-30637</a>	
@code	1..1	SHALL	CS	<a href="#">1202-30641</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1202-30642</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1202-30638</a>	
@code	1..1	SHALL		<a href="#">1202-30643</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">1202-30639</a>	
@code	1..1	SHALL		<a href="#">1202-30644</a>	3541-0
@codeSystem	1..1	SHALL		<a href="#">1202-30650</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1202-30647).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1202-30648).

If there were no hemovigilance incidents reported this month, set the value of @negationInd to false. If there were hemovigilance incidents reported this month, set the value of @negationInd to true.

3. **SHALL** contain exactly one [1..1] @negationInd (CONF:1202-30649).
4. **SHALL** contain exactly one [1..1] templateId (CONF:1202-30640) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.233" (CONF:1202-30645).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2015-10-01" (CONF:1202-30646).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1202-30637).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:1202-30641).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1202-30642).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1202-30638).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1202-30643).
7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:1202-30639).
  - a. This value **SHALL** contain exactly one [1..1] **@code**="3541-0" No hemovigilance incidents reported this month (CONF:1202-30644).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1202-30650).

**Figure 128: No Hemovigilance Incidents Reported This Month Observation**

```

<!-- No Hemovigilance Incidents Reported This Month Observation -->
<!-- If there were no hemovigilance incidents reported this month,
      set the value of @negationInd to false.
      If there were hemovigilance incidents reported this month,
      set the value of @negationInd to true. -->
<!-- There were hemovigilance incidents reported this month so negationInd='true' -->
<observation classCode="OBS" moodCode="EVN" negationInd="true">
  <!-- No Hemovigilance Incidents Reported This Month Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.233"
    extension="2015-10-01" />
  <code code="ASSERTION"
    codeSystem="2.16.840.1.113883.5.4" />
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN" code="3541-0"
    displayName="No hemovigilance incidents reported this month" />
</observation>

```

### 3.81 Observed or Suspected Patient Injection into Vascular Line Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.251:2018-04-01 (closed)]

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**Table 366: Observed or Suspected Patient Injection into Vascular Line Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a BSI Report (V3)</a> (required)	

This observation records whether there was observed or suspected patient injection into vascular line(s) within the BSI infection window period.

If there was observed or suspected patient injection into vascular line(s) within the BSI infection window period, set the value of @negationInd to false. If there was not observed or suspected patient injection into vascular line(s) within the BSI infection window period, set the value of @negationInd to true.



**Table 367: Observed or Suspected Patient Injection into Vascular Line Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.251:2018-04-01)					
@classCode	1..1	SHALL		<a href="#">3357-30647</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">3357-30648</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">3357-30649</a>	
templateId	1..1	SHALL		<a href="#">3357-30632</a>	
@root	1..1	SHALL		<a href="#">3357-30638</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">3357-30637</a>	
@root	1..1	SHALL		<a href="#">3357-30645</a>	2.16.840.1.113883.10.20.5.6.251
@extension	1..1	SHALL		<a href="#">3357-30646</a>	2018-04-01
id	1..1	SHALL		<a href="#">3357-30633</a>	
@nullFlavor	1..1	SHALL		<a href="#">3357-30639</a>	NA
code	1..1	SHALL		<a href="#">3357-30634</a>	
@code	1..1	SHALL		<a href="#">3357-30640</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">3357-30641</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">3357-30635</a>	
@code	1..1	SHALL		<a href="#">3357-30642</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">3357-30636</a>	
@code	1..1	SHALL	CS	<a href="#">3357-30643</a>	3056-9
@codeSystem	1..1	SHALL		<a href="#">3357-30644</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).

2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3357-30647).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3357-30648).

If there was observed or suspected patient injection into vascular line(s) within the BSI infection window period, set the value of **@negationInd** to false. If there was not observed or suspected patient injection into vascular line(s) within the BSI infection window period, set the value of **@negationInd** to true.

4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:3357-30649).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-30632) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.4" (CONF:3357-30638).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-30637) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.251" (CONF:3357-30645).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2018-04-01" (CONF:3357-30646).
7. **SHALL** contain exactly one [1..1] **id** (CONF:3357-30633).
  - a. This **id** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:3357-30639).
8. **SHALL** contain exactly one [1..1] **code** (CONF:3357-30634).
  - a. This **code** **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:3357-30640).
  - b. This **code** **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3357-30641).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3357-30635).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:3357-30642).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:3357-30636).
  - a. This **value** **SHALL** contain exactly one [1..1] **@code**="3056-9" Observed or suspected patient injection into vascular line(s) within the BSI infection window (CONF:3357-30643).
  - b. This **value** **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3357-30644).

**Figure 129: Observed or Suspected Patient Injection into Vascular Line Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- [C-CDA R1.1] Problem Observation -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- [HAI R3D3] Observed or Suspected Patient Injection into Vascular Line Observation --
  >
  <templateId root="2.16.840.1.113883.10.20.5.6.251" extension="2018-04-01"/>
  <id nullFlavor="NA"/>
  <code code="ASSERTION"
    codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    code="3056-9"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    displayName="Observed or suspected patient injection into vascular line(s)
      within the BSI infection window period"/>
</observation>
```

**3.82 Occasion of HAI Detection Observation**

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.144 (closed)]

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**Table 368: Occasion of HAI Detection Observation Contexts**

Contained By:	Contains:
<a href="#">Infection-Type Observation</a> (optional)	

This observation records when, in relation to an admission (a surgery stay), an HAI was detected.

**Table 369: Occasion of HAI Detection Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.144)					
@classCode	1..1	SHALL		<a href="#">86-21716</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-21717</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-21718</a>	false
templateId	1..1	SHALL		<a href="#">86-28259</a>	
@root	1..1	SHALL		<a href="#">86-28260</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-21721</a>	
@root	1..1	SHALL		<a href="#">86-21722</a>	2.16.840.1.113883.10.20.5.6.144
id	1..1	SHALL		<a href="#">86-21723</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22773</a>	NA
code	1..1	SHALL		<a href="#">86-21724</a>	
@code	1..1	SHALL		<a href="#">86-21725</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28383</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-21726</a>	
@code	1..1	SHALL		<a href="#">86-21727</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-21728</a>	urn:oid:2.16.840.1.113883.13.12 (NHSNOccasionOfDetectionCode)

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21716).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21717).
4. **SHALL** contain exactly one [1..1] @negationInd="false" (CONF:86-21718).
5. **SHALL** contain exactly one [1..1] templateId (CONF:86-28259) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28260).
6. **SHALL** contain exactly one [1..1] templateId (CONF:86-21721) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.144" (CONF:86-21722).
7. **SHALL** contain exactly one [1..1] id (CONF:86-21723).

- a. This id **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22773).
8. **SHALL** contain exactly one [1..1] code (CONF:86-21724).
  - a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-21725).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28383).
9. **SHALL** contain exactly one [1..1] statusCode (CONF:86-21726).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-21727).
10. **SHALL** contain exactly one [1..1] value with @xsi:type="CD", where the code **SHALL** be selected from ValueSet [NHSNOccasionOfDetectionCode](#) urn:oid:2.16.840.1.113883.13.12 **DYNAMIC** (CONF:86-21728).

**Table 370: NHSNOccasionOfDetectionCode**

Value Set: NHSNOccasionOfDetectionCode urn:oid:2.16.840.1.113883.13.12 (Clinical Focus: NHSN surveillance reporting;),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.12/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.12/expansion</a>			
Code	Code System	Code System OID	Print Name
1505-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.27 7	Post-discharge surveillance
1510-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.27 7	Admission (during the stay in which the surgery was performed)
1516-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.27 7	Readmission to facility where procedure was performed
1517-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.27 7	Readmission to facility other than where procedure was performed

**Figure 130: Occasion of HAI Detection Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Occasion of HAI Detection Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.144"/>
  <id nullFlavor="NA"/>
  <code code="ASSERTION"
    codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="completed"/>

  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="1510-7"
    displayName="Admission (during the stay in which the surgery was performed)"/>
</observation>
```

### 3.83 Other Facility Discharge Act

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.228:2014-12-01  
(closed)]

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**Table 371: Other Facility Discharge Act Contexts**

Contained By:	Contains:
<a href="#">Encounters Section in a LIO Report (V2)</a> (required)	<a href="#">Other Facility Discharge Encounter</a> (optional)

This act template is a wrapper around the Other Facility Discharge Encounter template. The act identifies that the contained encounter represents an encounter at a facility from which the patient has been discharged in the past four weeks, while the encounter template records the type of encounter and the type of facility. Multiple discharge encounters can be recorded. Use nullFlavor="NA" where the other facility discharge is not applicable (i.e., the patient has not been discharged from another facility in the past four weeks). Use nullFlavor="UNK" when it is unknown whether or not the patient has been discharged from another facility in the past four weeks.

**Table 372: Other Facility Discharge Act Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.228:2014-12-01)					
@nullFlavor	0..1	MAY		<a href="#">1129-30580</a>	urn:oid:2.16.840.1.113883.10.20.5.9.2 (NullValues_UNK_NA)
@classCode	1..1	SHALL		<a href="#">1129-30585</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1129-30586</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1129-30577</a>	
@root	1..1	SHALL		<a href="#">1129-30581</a>	2.16.840.1.113883.10.20.5.6.228
@extension	1..1	SHALL		<a href="#">1129-30582</a>	2014-12-01
code	1..1	SHALL		<a href="#">1129-30578</a>	
@code	1..1	SHALL		<a href="#">1129-30583</a>	3004-9
@codeSystem	1..1	SHALL		<a href="#">1129-30584</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
entryRelationship	0..*	SHOULD		<a href="#">1129-30576</a>	
@typeCode	1..1	SHALL		<a href="#">1129-30587</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
encounter	1..1	SHALL		<a href="#">1129-30579</a>	<a href="#">Other Facility Discharge Encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.218:2014-12-01)</a>

Use nullFlavor="NA" where the other facility discharge is not applicable (i.e. the patient has not been discharged from another facility in the past four weeks). Use nullFlavor="UNK" when it is unknown whether or not the patient has been discharged from another facility in the past four weeks.

1. **MAY** contain zero or one [0..1] **@nullFlavor**, which **SHALL** be selected from ValueSet [NullValues UNK NA](#) urn:oid:2.16.840.1.113883.10.20.5.9.2 **STATIC** 2014-11-01 (CONF:1129-30580).
2. **SHALL** contain exactly one [1..1] **@classCode**="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1129-30585).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1129-30586).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-30577) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.228" (CONF:1129-30581).
- b. **SHALL** contain exactly one [1..1] **@extension**="2014-12-01" (CONF:1129-30582).
- 5. **SHALL** contain exactly one [1..1] **code** (CONF:1129-30578).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="3004-9" Patient discharged from another facility in the past four weeks (CONF:1129-30583).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1129-30584).

Where the other facility discharge is not applicable or unknown, this entryRelationship will not be present.

Multiple discharges from different facilities in the past four weeks can be recorded.

- 6. **SHOULD** contain zero or more [0..\*] **entryRelationship** (CONF:1129-30576).
  - a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@typeCode**="COMP" Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1129-30587).
  - b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] Other Facility Discharge Encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.218:2014-12-01) (CONF:1129-30579).

**Table 373: NullValues\_UNK\_NA**

Value Set: NullValues_UNK_NA urn:oid:2.16.840.1.113883.10.20.5.9.2 Null values of unknown and not applicable. Value Set Source: <a href="https://trifolia.lantanagroup.com/TerminologyManagement/ValueSet/View/2863">https://trifolia.lantanagroup.com/TerminologyManagement/ValueSet/View/2863</a>			
Code	Code System	Code System OID	Print Name
UNK	HL7NullFlavor	urn:oid:2.16.840.1.113883.5.1008	Unknown
NA	HL7NullFlavor	urn:oid:2.16.840.1.113883.5.1008	Not applicable



**Figure 131: Other Facility Discharge Act Example**

```
<act classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.5.6.228"
    extension="2014-12-01" />
  <code code="3004-9"
    displayName="Patient discharged from another facility in the past four weeks"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN" />
  <!-- Can have more than one discharge from different facilities in the past four weeks
    each represented by a different encounter -->
  <!-- First encounter -->
  <entryRelationship typeCode="COMP">
    <!-- Other Facility Discharge Encounter -->
    <encounter classCode="ENC" moodCode="EVN">
      <!-- CCD Encounter activity templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.49" />
      <!-- Other Facility Discharge Encounter templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.218"
        extension="2014-12-01" />

      ...
    </encounter>
  </entryRelationship>

  <!-- Second encounter -->
  <entryRelationship typeCode="COMP">
    <!-- Other Facility Discharge Encounter -->
    <encounter classCode="ENC" moodCode="EVN">
      <!-- CCD Encounter activity templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.49" />
      <!-- Other Facility Discharge Encounter templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.218"
        extension="2014-12-01" />

      ...
    </encounter>
  </entryRelationship>
</act>
```

**Figure 132: Other Facility Discharge Act - Not Applicable Example**

```
<act classCode="ACT" moodCode="EVN" nullFlavor="NA">
  <templateId root="2.16.840.1.113883.10.20.5.6.228"
    extension="2014-12-01" />
  <code code="3004-9"
    displayName="Patient discharged from another facility in the past four weeks"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN" />
</act>
```

**Figure 133: Other Facility Discharge Act - Unknown Example**

```
<act classCode="ACT" moodCode="EVN" nullFlavor="UNK">
  <templateId root="2.16.840.1.113883.10.20.5.6.228"
    extension="2014-12-01" />
  <code code="3004-9"
    displayName="Patient discharged from another facility in the past four weeks"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN" />
</act>
```

### 3.84 Other Facility Discharge Encounter

```
[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.218:2014-12-01
(closed)]
```

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**Table 374: Other Facility Discharge Encounter Contexts**

Contained By:	Contains:
<a href="#">Other Facility Discharge Act</a> (optional)	

This encounter template represents an encounter at another facility from which the patient was discharged in the past four weeks. The type of encounter is set to "IMP" (inpatient encounter) and the location participant records the type of facility.

**Table 375: Other Facility Discharge Encounter Constraints Overview**

<b>XPath</b>	<b>Card.</b>	<b>Verb</b>	<b>Data Type</b>	<b>CONF#</b>	<b>Value</b>
encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.218:2014-12-01)					
@classCode	1..1	SHALL		<a href="#">1129-28234</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">1129-28235</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1129-30491</a>	
@root	1..1	SHALL		<a href="#">1129-30492</a>	2.16.840.1.113883.10.20.22.4.49
templateId	1..1	SHALL		<a href="#">1129-28226</a>	
@root	1..1	SHALL		<a href="#">1129-28233</a>	2.16.840.1.113883.10.20.5.6.218
@extension	1..1	SHALL		<a href="#">1129-30290</a>	2014-12-01
id	1..*	SHALL		<a href="#">1129-28222</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-28230</a>	NA
code	1..1	SHALL		<a href="#">1129-28223</a>	
@code	1..1	SHALL		<a href="#">1129-28231</a>	IMP
@codeSystem	1..1	SHALL		<a href="#">1129-30464</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
effectiveTime	1..1	SHALL		<a href="#">1129-28224</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-30255</a>	NA
participant	1..1	SHALL		<a href="#">1129-28227</a>	
@typeCode	1..1	SHALL		<a href="#">1129-28239</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">1129-28228</a>	
@classCode	1..1	SHALL		<a href="#">1129-28236</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC
code	1..1	SHALL		<a href="#">1129-28229</a>	
@code	1..1	SHALL		<a href="#">1129-28238</a>	urn:oid:2.16.840.1.114222.4.11.7238 (NHSNPreviousFacility)

1. Conforms to Encounter Activities template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.49).
2. **SHALL** contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1129-28234).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1129-28235).
4. **SHALL** contain exactly one [1..1] templateId (CONF:1129-30491) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.49" (CONF:1129-30492).
5. **SHALL** contain exactly one [1..1] templateId (CONF:1129-28226) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.218" (CONF:1129-28233).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30290).
6. **SHALL** contain at least one [1..\*] id (CONF:1129-28222).
  - a. Such ids **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-28230).
7. **SHALL** contain exactly one [1..1] code (CONF:1129-28223).
  - a. This code **SHALL** contain exactly one [1..1] @code="IMP" inpatient encounter (CONF:1129-28231).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1129-30464).
8. **SHALL** contain exactly one [1..1] effectiveTime (CONF:1129-28224).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-30255).
9. **SHALL** contain exactly one [1..1] participant (CONF:1129-28227).
  - a. This participant **SHALL** contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:1129-28239).
  - b. This participant **SHALL** contain exactly one [1..1] participantRole (CONF:1129-28228).
    - i. This participantRole **SHALL** contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:1129-28236).
    - ii. This participantRole **SHALL** contain exactly one [1..1] code (CONF:1129-28229).
      1. This code **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet [NHSNPreviousFacility](#) urn:oid:2.16.840.1.114222.4.11.7238 **DYNAMIC** (CONF:1129-28238).

**Table 376: NHSNPreviousFacility**

Value Set: NHSNPreviousFacility urn:oid:2.16.840.1.114222.4.11.7238 (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the previous facility from which the patient has been discharged.),(Data Element Scope: A code identifying the type of facility the patient was previously discharged.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7238/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7238/expansion</a>			
Code	Code System	Code System OID	Print Name
3005-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Nursing Home/Skilled Nursing Facility
3006-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Other inpatient healthcare setting (e.g., Acute Care Hospital, LTAC, Rehabilitation, etc.)

**Figure 134: Other Facility Discharge Encounter Example**

<pre>&lt;encounter classCode="ENC" moodCode="EVN"&gt;   &lt;!-- C-CDA Encounter activity templateId --&gt;   &lt;templateId root="2.16.840.1.113883.10.20.22.4.49" /&gt;   &lt;!-- Other Facility Discharge Encounter templateId --&gt;   &lt;templateId root="2.16.840.1.113883.10.20.5.6.218"     extension="2014-12-01" /&gt;   &lt;id nullFlavor="NA" /&gt;   &lt;code code="IMP"     displayName="inpatient encounter"     codeSystem="2.16.840.1.113883.5.4"     codeSystemName="ActCode" /&gt;   &lt;effectiveTime nullFlavor="NA" /&gt;   &lt;participant typeCode="LOC"&gt;     &lt;participantRole classCode="SDLOC"&gt;       &lt;code code="3005-6"         displayName="Nursing Home/Skilled Nursing Facility"         codeSystem="2.16.840.1.113883.6.277"         codeSystemName="cdcNHSN" /&gt;     &lt;/participantRole&gt;   &lt;/participant&gt; &lt;/encounter&gt;</pre>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### 3.85 Pathogen Identified Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.145 (closed)]

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**Table 377: Pathogen Identified Observation Contexts**

Contained By:	Contains:
<a href="#">Findings Organizer</a> (required) <a href="#">Findings Section in an Infection-Type Report</a> (optional) <a href="#">Findings Section in an OPC SSI Report</a> (optional)	

This template either represents a pathogen identified or, using a code from the NHSN Pathogens Code value set, records that no pathogens were identified.

The value set table provides codes for several unspecified species—for example "Acidaminococcus species" (SNOMED CT 131202007, NHSN ACISP)—for use when a more precise code is not available. The code for an unspecified species is preferred to a genus-level code.

**Table 378: Pathogen Identified Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.145)					
@classCode	1..1	SHALL		<a href="#">86-20909</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-20910</a>	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-28261</a>	
@root	1..1	SHALL		<a href="#">86-28262</a>	2.16.840.1.113883.10.20.22.4 .2
templateId	1..1	SHALL		<a href="#">86-20913</a>	
@root	1..1	SHALL		<a href="#">86-20914</a>	2.16.840.1.113883.10.20.5.6. 145
id	1..1	SHALL		<a href="#">86-20915</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22777</a>	NA
code	1..1	SHALL		<a href="#">86-20916</a>	
@code	1..1	SHALL		<a href="#">86-20917</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 41852-5
statusCode	1..1	SHALL		<a href="#">86-20918</a>	
@code	1..1	SHALL		<a href="#">86-20919</a>	urn:oid:2.16.840.1.113883.5.1 4 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">86-22716</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22778</a>	NA
value	1..1	SHALL	CD	<a href="#">86-20920</a>	urn:oid:2.16.840.1.113883.13. 16 (NHSNPathogenCode)

1. Conforms to Result Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.2).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-20909).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-20910).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28261) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.2" (CONF:86-28262).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-20913) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.145" (CONF:86-20914).
6. **SHALL** contain exactly one [1..1] **id** (CONF:86-20915).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22777).
7. **SHALL** contain exactly one [1..1] **code** (CONF:86-20916).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="41852-5" Microorganism identified (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 **STATIC**) (CONF:86-20917).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-20918).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-20919).
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:86-22716).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22778).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", where the code **SHALL** be selected from ValueSet [NHSNPathogenCode](#) urn:oid:2.16.840.1.113883.13.16 **DYNAMIC** (CONF:86-20920).

**Table 379: NHSNPathogenCode**

Value Set: NHSNPathogenCode urn:oid:2.16.840.1.113883.13.16 (Clinical Focus: NHSN surveillance: Pathogens reported for healthcare-associated infections and antimicrobial resistance.), (Data Element Scope: A code describing an entity organism as a pathogen.), (Inclusion Criteria: ), (Exclusion Criteria: )  This value set was imported on 1/11/2024 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.16/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.16/expansion</a>			
Code	Code System	Code System OID	Print Name
10021006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Rahnella aquatilis (organism)
10049004	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Streptococcus ferus (organism)
10091000087105	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Bacteroides nordii (organism)
10151000087104	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Cyberlindnera fabianii (organism)
10171000087105	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Malassezia restricta (organism)
10210008	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Chaetomium (organism)
10262005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Enterococcus malodoratus (organism)
10334001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Yersinia intermedia (organism)
103427005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Campylobacter upsaliensis (organism)
103428000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Corynebacterium ulcerans (organism)
...			



**Figure 135: Pathogen Identified Observation Example - Pathogen Identified**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- C-CDA Result Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
  <!-- HAI Pathogen Identified Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.145"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        code="41852-5"
        displayName="Microorganism identified"/>
  <statusCode code="completed"/>
  <effectiveTime nullFlavor="NA"/>
  <value xsi:type="CD"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED"
        code="116197008"
        displayName="Staphylococcus, coagulase negative (organism)"/>
</observation>
```

**Figure 136: Pathogen Identified Observation Example - No Pathogen Identified**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- [C-CDA R1.1] Result Observation -->
  <templateId root="2.16.840.1.113883.10.20.22.4.2" />
  <!-- [HAI R1] Pathogen Identified Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.145" />
  <id nullFlavor="NA" />
  <code code="41852-5"
        displayName="Microorganism identified"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC" />
  <statusCode code="completed" />
  <effectiveTime nullFlavor="NA" />
  <value xsi:type="CD" code="3119-7"
        displayName="No pathogen identified"
        codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN" />
</observation>
```

### 3.86 Pathogen Identified Observation (LIO) (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.146:2014-12-01 (closed)]

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**Table 380: Pathogen Identified Observation (LIO) (V2) Contexts**

Contained By:	Contains:
<a href="#">Findings Section in a LIO Report (V2)</a> (required)	<a href="#">Specimen Collection Procedure (LIO)</a> (required) <a href="#">Bacterial Isolate Tested for Carbapenemase Observation</a> (optional)

This template records a laboratory-identified microorganism and details of the specimen collection. The microorganism is recorded in the same way as in the Findings Organizer in infection reports. If the bacterial isolate was one of CRE-Klebsiella (CREKLEB), CRE-Ecoli (CREECOLI), or CRE-Enterobacter (CREENTERO) any tests for carbapenemase are recorded, along with any carbapenemases identified.

**Table 381: Pathogen Identified Observation (LIO) (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.146:2014-12-01)					
@classCode	1..1	SHALL		<a href="#">1129-19867</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1129-19868</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1129-30525</a>	
@root	1..1	SHALL		<a href="#">1129-30526</a>	2.16.840.1.113883.10.20.22.4.2
templateId	1..1	SHALL		<a href="#">1129-19879</a>	
@root	1..1	SHALL		<a href="#">1129-19880</a>	2.16.840.1.113883.10.20.5.6.146
@extension	1..1	SHALL		<a href="#">1129-30527</a>	2014-12-01
id	1..1	SHALL		<a href="#">1129-19881</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-22774</a>	NA
code	1..1	SHALL		<a href="#">1129-19869</a>	
@code	1..1	SHALL		<a href="#">1129-19870</a>	41852-5
@codeSystem	1..1	SHALL		<a href="#">1129-30436</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1129-19871</a>	
@code	1..1	SHALL		<a href="#">1129-19872</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1129-22732</a>	
value	1..1	SHALL	CD	<a href="#">1129-19873</a>	urn:oid:2.16.840.1.114222.4.11.3194 (NHSNSignificantPathogenCode)
entryRelationship	1..1	SHALL		<a href="#">1129-19875</a>	
@typeCode	1..1	SHALL		<a href="#">1129-30434</a>	COMP
procedure	1..1	SHALL		<a href="#">1129-19876</a>	<a href="#">Specimen Collection Procedure (LIO) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.165)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
entryRelationship	0..1	MAY		<a href="#">1129-30416</a>	
@typeCode	1..1	SHALL		<a href="#">1129-30435</a>	COMP
observation	1..1	SHALL		<a href="#">1129-30417</a>	<a href="#">Bacterial Isolate Tested for Carbapenemase Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.222:2014-12-01)</a>

1. Conforms to Result Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.2).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1129-19867).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1129-19868).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-30525) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.2" (CONF:1129-30526).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-19879) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.146" (CONF:1129-19880).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-12-01" (CONF:1129-30527).
6. **SHALL** contain exactly one [1..1] **id** (CONF:1129-19881).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:1129-22774).
7. **SHALL** contain exactly one [1..1] **code** (CONF:1129-19869).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="41852-5" Microorganism identified (CONF:1129-19870).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1129-30436).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1129-19871).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1129-19872).
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1129-22732).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", where the code **SHALL** be selected from ValueSet [NHSNSignificantPathogenCode](#) urn:oid:2.16.840.1.114222.4.11.3194 **DYNAMIC** (CONF:1129-19873).
11. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:1129-19875) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1129-30434).

- b. **SHALL** contain exactly one [1..1] [Specimen Collection Procedure \(LIO\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.165) (CONF:1129-19876).

If value is CRE-Klebsiella (CREKLEB), CRE-Ecoli (CREECOLI), or CRE-Enterobacter (CREENTERO), then this entryRelationship is required.

12. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1129-30416) such that it
- a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CONF:1129-30435).
- b. **SHALL** contain exactly one [1..1] [Bacterial Isolate Tested for Carbapenemase Observation](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.222:2014-12-01) (CONF:1129-30417).

**Table 382: NHSNSignificantPathogenCode**

Value Set: NHSNSignificantPathogenCode urn:oid:2.16.840.1.114222.4.11.3194 (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the significant pathogen identified.),(Data Element Scope: A coded observation value representing the type of significant pathogen.),(Inclusion Criteria: ),(Exclusion Criteria: )			
This value set was imported on 4/12/2022 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3194/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3194/expansion</a>			
Code	Code System	Code System OID	Print Name
113727004	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Vancomycin resistant Enterococcus (organism)
115329001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Methicillin resistant Staphylococcus aureus (organism)
2010-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	MDR-Acinetobacter
2016-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	CephR-Klebsiella
2017-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	CRE-Klebsiella
2018-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	CRE-E. coli
2019-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	CRE-Enterobacter
417943000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Methicillin susceptible Staphylococcus aureus (organism)
5933001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Clostridioides difficile (organism)

**Figure 137: Pathogen Identified Observation (LIO) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- C-CDA Result Observation templateID -->
  <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
  <!-- HAI Pathogen Identified Observation (LIO) templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.146"
    extension="2014-12-01"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
    code="41852-5" displayName="Microorganism Identified"/>
  <statusCode code="completed"/>
  <effectiveTime nullFlavor="NA"/>
  <value xsi:type="CD" codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"
    code="5933001"
    displayName="Clostridium difficile (organism)"/>

  <!-- Specimen collection procedure contains specimen collection encounter -->
  <entryRelationship typeCode="COMP">
    <procedure classCode="PROC" moodCode="EVN">
      <!-- Specimen Collection Procedure (LIO) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.165" />
      ...
    </procedure>
  </entryRelationship>
  <!-- If value is CRE-Klebsiella (CREKLEB), CRE-Ecoli (CREECOLI), or CRE-Enterobacter
    (CREENTERO), then this entryRelationship is required -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Bacterial Isolate Tested for Carbapenemase Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.222"
        extension="2014-12-01"/>
      ...
    </observation>
  </entryRelationship>
</observation>
```

### 3.87 Pathogen Ranking Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.147 (closed)]

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**Table 383: Pathogen Ranking Observation Contexts**

Contained By:	Contains:
<a href="#">Findings Organizer</a> (required)	

The NHSN pathogen findings record up to three pathogens. This observation records the relative importance of a pathogen in that set with respect to its role in the infection.

The value is a coded ordinal, where the value of @code is the number 1 or 2 or 3; where 1 represents the highest-ranked pathogen of up to three pathogens recorded.

**Table 384: Pathogen Ranking Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.147)					
@classCode	1..1	SHALL		<a href="#">86-19787</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-19788</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-28263</a>	
@root	1..1	SHALL		<a href="#">86-28264</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-19797</a>	
@root	1..1	SHALL		<a href="#">86-19798</a>	2.16.840.1.113883.10.20.5.6.147
id	1..1	SHALL		<a href="#">86-19799</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22780</a>	NA
code	1..1	SHALL		<a href="#">86-19789</a>	
@code	1..1	SHALL		<a href="#">86-19790</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28384</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-19791</a>	
@code	1..1	SHALL		<a href="#">86-19792</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CO	<a href="#">86-19793</a>	
@code	1..1	SHALL		<a href="#">86-28409</a>	
@codeSystem	1..1	SHALL		<a href="#">86-28411</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-19787).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-19788).
4. **SHALL** contain exactly one [1..1] templateId (CONF:86-28263) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28264).
5. **SHALL** contain exactly one [1..1] templateId (CONF:86-19797) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.147" (CONF:86-19798).

6. **SHALL** contain exactly one [1..1] **id** (CONF:86-19799).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor="NA"** (CONF:86-22780).
7. **SHALL** contain exactly one [1..1] **code** (CONF:86-19789).
  - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** Assertion (CONF:86-19790).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28384).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-19791).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-19792).
9. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CO"** (CONF:86-19793).
  - a. This value **SHALL** contain exactly one [1..1] **@code** (CONF:86-28409).
    - i. **SHALL** be the number 1 or 2 or 3, where 1 represents the highest-ranked pathogen of up to three pathogens recorded (CONF:86-28410).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.277"** (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:86-28411).

**Figure 138: Pathogen Ranking Observation Example**

```

<observation classCode="OBS" moodCode="EVN">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Pathogen Ranking Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.147"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.5.4"
        codeSystemName="HL7"
        code="ASSERTION"/>
  <statusCode code="completed"/>
  <value xsi:type="CO"
        codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        code="1"
        displayName="Pathogen ranking 1"/>
</observation>

```



### 3.88 Pathogen Reduced Apheresis Platelet Usage Summary Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.240:2016-08-01 (closed)]

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**Table 385: Pathogen Reduced Apheresis Platelet Usage Summary Observation Contexts**

Contained By:	Contains:
<a href="#">Summary Encounter (HV) (V2)</a> (optional)	<a href="#">ISBT Product Code Summary Observation (V2)</a> (optional)

This template represents the number of units transfused, aliquots transfused, or total discards for pathogen reduced apheresis platelets.

If the value = 0, there *SHALL NOT* be a contained observation. If the value is > 0 then each specific subcategory product that is > 0 *SHALL* be listed in a separate contained ISBT Product Code Summary Observation.

**Table 386: Pathogen Reduced Apheresis Platelet Usage Summary Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.240:2016-08-01)					
@classCode	1..1	SHALL		<a href="#">3247-30789</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">3247-30790</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">3247-30780</a>	
@root	1..1	SHALL		<a href="#">3247-30784</a>	2.16.840.1.113883.10.20.5.6.240
@extension	1..1	SHALL		<a href="#">3247-30785</a>	2016-08-01
code	1..1	SHALL		<a href="#">3247-30781</a>	
@code	1..1	SHALL		<a href="#">3247-30786</a>	urn:oid:2.16.840.1.113883.10.20.5.9.5 (NHSN Pathogen Reduced Apheresis Platelet Usage)
statusCode	1..1	SHALL		<a href="#">3247-30782</a>	
@code	1..1	SHALL		<a href="#">3247-30787</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	INT	<a href="#">3247-30788</a>	
entryRelationship	0..*	SHOULD		<a href="#">3247-30779</a>	
observation	1..1	SHALL		<a href="#">3247-30783</a>	<a href="#">ISBT Product Code Summary Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.238:2016-08-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3247-30789).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3247-30790).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3247-30780) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.240" (CONF:3247-30784).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2016-08-01" (CONF:3247-30785).
4. **SHALL** contain exactly one [1..1] **code** (CONF:3247-30781).
  - a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [NHSN Pathogen Reduced Apheresis Platelet Usage](#) urn:oid:2.16.840.1.113883.10.20.5.9.5 **DYNAMIC** (CONF:3247-30786).

5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3247-30782).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3247-30787).
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="INT"** (CONF:3247-30788).
7. **SHOULD** contain zero or more [0..\*] **entryRelationship** (CONF:3247-30779).
  - a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **ISBT Product Code Summary Observation (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.238:2016-08-01) (CONF:3247-30783).
8. If the value = 0 there **SHALL NOT** be a contained observation. If the value is > 0 then each specific subcategory product that is > 0 **SHALL** be listed in a separate contained ISBT Product Code Summary Observation (CONF:3247-30791).

**Table 387: NHSN Pathogen Reduced Apheresis Platelet Usage**

Value Set: NHSN Pathogen Reduced Apheresis Platelet Usage urn:oid:2.16.840.1.113883.10.20.5.9.5 (Clinical Focus: NHSN surveillance reporting: monthly reporting denominators for hemovigilance),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.5/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.5/expansion</a>			
Code	Code System	Code System OID	Print Name
3568-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of units transfused: Platelets: Apheresis: Psoralen-treated and in plasma
3569-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of aliquots transfused: Platelets: Apheresis: Psoralen-treated and in plasma
...			

**Figure 139: Pathogen Reduced Apheresis Platelet Usage Summary Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- [HAI R3D1.1] Pathogen Reduced Apheresis Platelet Usage Summary Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.240" extension="2016-08-01" />
  <code codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="3571-7"
    displayName="Number of units transfused - Platelets/Apheresis/Psoralein-Treated and in
Platelet Additive Solution" />
  <statusCode code="completed" />
  <value xsi:type="INT" value="75" />
  <!--
    If the value = 0, there SHALL NOT be a contained observation.
    If the value is > 0 then each specific subcategory product that is > 0
    SHALL be listed in a separate contained ISBT Product Code Summary Observation.
  -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- ISBT Product Code Summary Observation (V2) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.238" extension="2016-08-01" />
      ...
    </observation>
  </entryRelationship>
  ...
</observation>
```

### 3.89 Patient Admitted This Encounter Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.266:2020-04-01  
(open)]

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**Table 388: Patient Admitted This Encounter Observation Contexts**

Contained By:	Contains:
<a href="#">Specimen Collection Encounter (ARO) (V2)</a> (required)	

This observation represents whether or not the patient was admitted to an inpatient location during this encounter. If the patient was admitted to an inpatient location during this encounter, set the value to true. If the patient was not admitted to an inpatient location during this encounter, set the value to false.

**Table 389: Patient Admitted This Encounter Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.266:2020-04-01)					
@classCode	1..1	SHALL		<a href="#">4459-5</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4459-6</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">4459-4</a>	
@root	1..1	SHALL		<a href="#">4459-12</a>	2.16.840.1.113883.10.20.5.6.266
@extension	1..1	SHALL		<a href="#">4459-13</a>	2020-04-01
code	1..1	SHALL		<a href="#">4459-1</a>	
@code	1..1	SHALL		<a href="#">4459-7</a>	95415-6
@codeSystem	1..1	SHALL		<a href="#">4459-8</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
value	1..1	SHALL	BL	<a href="#">4459-3</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4459-5).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4459-6).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:4459-4).
  - a. This templateId **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.266" (CONF:4459-12).
  - b. This templateId **SHALL** contain exactly one [1..1] **@extension**="2020-04-01" (CONF:4459-13).
4. **SHALL** contain exactly one [1..1] **code** (CONF:4459-1).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="95415-6" Patient admitted as an inpatient (CONF:4459-7).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4459-8).

If the patient was admitted to an inpatient location during this encounter, set the value to true. If the patient was not admitted to an inpatient location during this encounter, set the value to false.

5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="BL" (CONF:4459-3).

**Figure 140: Patient Admitted This Encounter Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- [HAI R3N1] Patient Admitted This Encounter Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.266" extension="2020-04-01" />
  <code code="95415-6"
    displayName="Patient admitted as an inpatient"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC" />
  <!-- If the patient was admitted to an inpatient location during this
    encounter, set the value to true.
    If the patient was not admitted to an inpatient location during this
    encounter, set the value to false. -->
  <value xsi:type="BL" value="true" />
</observation>
```

### 3.90 PICC/IV Team

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.148 (closed)]

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**Table 390: PICC/IV Team Contexts**

Contained By:	Contains:
<a href="#">Procedure Details Clinical Statement in a CLIP Report</a> (required)	

This observation records whether the person who performed the central line insertion was a member of the PICC/IV team. It is used in the Central-Line Insertion Practice Report.

If the performer was a member of the PICC/IV team, set the value of @negationInd to false. If the performer was not a member of the PICC/IV team, set the value of @negationInd to true.

**Table 391: PICC/IV Team Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.148)					
@classCode	1..1	SHALL		<a href="#">86-21214</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-21215</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-21216</a>	
templateId	1..1	SHALL		<a href="#">86-22002</a>	
@root	1..1	SHALL		<a href="#">86-22003</a>	2.16.840.1.113883.10.20.5.6.148
id	1..1	SHALL		<a href="#">86-22004</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22779</a>	NA
code	1..1	SHALL		<a href="#">86-21217</a>	
@code	1..1	SHALL		<a href="#">86-21218</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28385</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-21219</a>	
@code	1..1	SHALL		<a href="#">86-21220</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = completed
value	1..1	SHALL	CD	<a href="#">86-21221</a>	
@code	1..1	SHALL		<a href="#">86-21222</a>	2213-7
@codeSystem	1..1	SHALL		<a href="#">86-28404</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21214).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21215).
3. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:86-21216).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22002) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.148" (CONF:86-22003).
5. **SHALL** contain exactly one [1..1] **id** (CONF:86-22004).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22779).
6. **SHALL** contain exactly one [1..1] **code** (CONF:86-21217).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:86-21218).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28385).

7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-21219).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="completed" COMPLETED (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4 **STATIC**) (CONF:86-21220).
8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:86-21221).
  - a. This **value** **SHALL** contain exactly one [1..1] **@code**="2213-7" Performer was a member of PICC/IV Team (CONF:86-21222).
  - b. This **value** **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:86-28404).

**Figure 141: PICC/IV Team Example**

```
<observation moodCode="EVN" classCode="OBS" negationInd="false">
  <templateId root="2.16.840.1.113883.10.20.5.6.148"/>
  <id nullFlavor="NA"/>
  <code code="ASSERTION"
    codeSystem="2.16.840.1.113883.5.4" />
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="2213-7"
    displayName="Performer was a member of PICC/IV Team"/>
</observation>
```

### 3.91 Positive Blood Culture Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.149:2019-04-01 (closed)]

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**Table 392: Positive Blood Culture Observation (V3) Contexts**

Contained By:	Contains:
<a href="#">Infection Indicator Organizer (V5)</a> (required)	<a href="#">Suspected Source Observation</a> (optional) <a href="#">Blood Collection Location</a> (optional)

This clinical statement is an infection indicator. It is used in an Evidence of Infection (Dialysis) Report. When the positive blood culture was present, set the value of **@negationInd** to false and record the event date in **effectiveTime/@low**. When the positive blood culture was not present, set the value of **@negationInd** to true set **effectiveTime/low/@nullFlavor**='NA'.



**Table 393: Positive Blood Culture Observation (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.149:2019-04-01)					
@classCode	1..1	SHALL		<a href="#">4395-19818</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4395-19819</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">4395-19820</a>	
templateId	1..1	SHALL		<a href="#">4395-30528</a>	
@root	1..1	SHALL		<a href="#">4395-30529</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">4395-19837</a>	
@root	1..1	SHALL		<a href="#">4395-19838</a>	2.16.840.1.113883.10.20.5.6.149
@extension	1..1	SHALL		<a href="#">4395-30530</a>	2019-04-01
id	1..1	SHALL		<a href="#">4395-19839</a>	
@nullFlavor	1..1	SHALL		<a href="#">4395-22781</a>	NA
code	1..1	SHALL		<a href="#">4395-19821</a>	
@code	1..1	SHALL		<a href="#">4395-19822</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">4395-30605</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">4395-19823</a>	
@code	1..1	SHALL		<a href="#">4395-19824</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">4395-30676</a>	
low	1..1	SHALL		<a href="#">4395-30677</a>	
@nullFlavor	0..1	MAY		<a href="#">4395-30678</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA
@value	0..1	MAY		<a href="#">4395-30679</a>	
value	1..1	SHALL	CD	<a href="#">4395-19825</a>	
@code	1..1	SHALL		<a href="#">4395-19826</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 1955-4

XPath	Card.	Verb	Data Type	CONF#	Value
entryRelationship	1..1	SHOULD		<a href="#">4395-30308</a>	
@typeCode	1..1	SHALL		<a href="#">4395-30309</a>	CAUS
@inversionInd	1..1	SHALL		<a href="#">4395-30310</a>	true
observation	1..1	SHALL		<a href="#">4395-30311</a>	<a href="#">Suspected Source Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.168)</a>
entryRelationship	1..1	SHOULD		<a href="#">4395-30312</a>	
@typeCode	1..1	SHALL		<a href="#">4395-30313</a>	COMP
observation	1..1	SHALL		<a href="#">4395-30314</a>	<a href="#">Blood Collection Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.219:2014-12-01)</a>

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4395-19818).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4395-19819).

When the positive blood culture was present, set the value of @negationInd to false. When the positive blood culture was not present, set the value of @negationInd to true.

4. **SHALL** contain exactly one [1..1] @negationInd (CONF:4395-19820).
5. **SHALL** contain exactly one [1..1] templateId (CONF:4395-30528) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:4395-30529).
6. **SHALL** contain exactly one [1..1] templateId (CONF:4395-19837) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.149" (CONF:4395-19838).
  - b. **SHALL** contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30530).
7. **SHALL** contain exactly one [1..1] id (CONF:4395-19839).
  - a. This id **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CONF:4395-22781).
8. **SHALL** contain exactly one [1..1] code (CONF:4395-19821).
  - a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:4395-19822).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4395-30605).

9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4395-19823).
- a. This **statusCode** **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:4395-19824).

10. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4395-30676).

When the positive blood culture was present, record the event date in **effectiveTime/@low**.  
When the positive blood culture was not present, set **effectiveTime/low/@nullFlavor='NA'**.

- a. This **effectiveTime** **SHALL** contain exactly one [1..1] **low** (CONF:4395-30677).
    - i. This **low** **MAY** contain zero or one [0..1] **@nullFlavor="NA"** (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:4395-30678).
    - ii. This **low** **MAY** contain zero or one [0..1] **@value** (CONF:4395-30679).
11. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:4395-19825).
- a. This **value** **SHALL** contain exactly one [1..1] **@code="1955-4"** Positive blood culture (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277 **STATIC**) (CONF:4395-19826).

If the value of **@negationInd** is "false" this observation is required to contain the following **entryRelationship**

12. **SHOULD** contain exactly one [1..1] **entryRelationship** (CONF:4395-30308) such that it
- a. **SHALL** contain exactly one [1..1] **@typeCode="CAUS"** (CONF:4395-30309).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:4395-30310).
  - c. **SHALL** contain exactly one [1..1] **Suspected Source Observation** (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.168) (CONF:4395-30311).

If the value of **@negationInd** is "false" this observation is required to contain the following **entryRelationship**

13. **SHOULD** contain exactly one [1..1] **entryRelationship** (CONF:4395-30312) such that it
- a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CONF:4395-30313).
  - b. **SHALL** contain exactly one [1..1] **Blood Collection Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.219:2014-12-01) (CONF:4395-30314).

14. If the value of **@negationInd** is 'false' (CONF:4395-19827).

- a. The report **SHALL** contain a Findings Section (CONF:4395-19832).

15. If the value of **@negationInd** is 'true' (CONF:4395-19833).

- a. The report **SHALL NOT** contain a Findings Section (CONF:4395-19834).

**Figure 142: Positive Blood Culture Observation (V3) Example**

```
<!-- When the positive blood culture was present, set the value of @negationInd to false
      and record the event date in effectiveTime/@low. When the positive blood culture was
      not present, set the value of @negationInd to true and set
effectiveTime/low/@nullFlavor='NA'. -->
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Positive Blood Culture Observation (V3) templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.149"
    extension="2019-01-01"/>
  <id nullFlavor="NA"/>
  <code code="ASSERTION"
    codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="completed"/>
  <effectiveTime xsi:type="IVL_TS">
    <low value="20180405" />
  </effectiveTime>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="1955-4"
    displayName="Positive blood culture"/>

  <!-- Suspected Source of Pathogen -->
  <entryRelationship typeCode="CAUS" inversionInd="true">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- HAI Suspected Source of Pathogen templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.168"/>
      ...
    </observation>
  </entryRelationship>
  <!-- Blood Collection Location -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.5.6.219"
        extension="2014-12-01"/>
      ...
    </observation>
  </entryRelationship>
</observation>
```

### 3.92 Positive Test for Carbapenemase Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.225:2014-12-01 (closed)]

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**Table 394: Positive Test for Carbapenemase Observation Contexts**

Contained By:	Contains:
<a href="#">Bacterial Isolate Tested for Carbapenemase Observation</a> (optional)	<a href="#">Carbapenemase Type Identified Observation</a> (optional)

This template represents whether or not the bacterial isolate tested positive for carbapenemase. When the bacterial isolate tested positive, set the value of @negationInd to false. When the bacterial isolate did not test positive, set the value of @negationInd to true. When it is unknown whether or not the bacterial isolate tested positive, set the value of @nullFlavor to "UNK".

**Table 395: Positive Test for Carbapenemase Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.225:2014-12-01)					
@nullFlavor	0..1	MAY		<a href="#">1129-30413</a>	UNK
@classCode	1..1	SHALL		<a href="#">1129-30410</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1129-30411</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..1	SHOULD		<a href="#">1129-30412</a>	
templateId	1..1	SHALL		<a href="#">1129-30396</a>	
@root	1..1	SHALL		<a href="#">1129-30405</a>	2.16.840.1.113883.10.20.22.4.2
templateId	1..1	SHALL		<a href="#">1129-30531</a>	
@root	1..1	SHALL		<a href="#">1129-30532</a>	2.16.840.1.113883.10.20.5.6.225
@extension	1..1	SHALL		<a href="#">1129-30533</a>	2014-12-01
id	1..1	SHALL		<a href="#">1129-30397</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-30407</a>	NA
code	1..1	SHALL		<a href="#">1129-30393</a>	
@code	1..1	SHALL		<a href="#">1129-30402</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1129-30606</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1129-30394</a>	
@code	1..1	SHALL		<a href="#">1129-30403</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1129-30589</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-30590</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA
value	1..1	SHALL	CD	<a href="#">1129-30395</a>	
@code	1..1	SHALL		<a href="#">1129-30404</a>	2048-7
@codeSystem	1..1	SHALL		<a href="#">1129-30441</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) =

XPath	Card.	Verb	Data Type	CONF#	Value
					2.16.840.1.113883.6.277
entryRelationship	0..*	SHOULD		<a href="#">1129-30392</a>	
@typeCode	1..1	SHALL		<a href="#">1129-30400</a>	COMP
observation	1..1	SHALL		<a href="#">1129-30462</a>	<a href="#">Carbapenemase Type Identified Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.226:2014-12-01)</a>

1. Conforms to Result Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.2).

When it is unknown whether or not the bacterial isolate tested positive, set the value of @nullFlavor to "UNK".

2. **MAY** contain zero or one [0..1] @nullFlavor="UNK" (CONF:1129-30413).
3. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1129-30410).
4. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1129-30411).

When the bacterial isolate tested positive, set the value of @negationInd to false. When the bacterial isolate did not test positive, set the value of @negationInd to true.

5. **SHOULD** contain zero or one [0..1] @negationInd (CONF:1129-30412).
6. **SHALL** contain exactly one [1..1] templateId (CONF:1129-30396) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.2" (CONF:1129-30405).
7. **SHALL** contain exactly one [1..1] templateId (CONF:1129-30531) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.225" (CONF:1129-30532).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30533).
8. **SHALL** contain exactly one [1..1] id (CONF:1129-30397).
  - a. This id **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-30407).
9. **SHALL** contain exactly one [1..1] code (CONF:1129-30393).
  - a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:1129-30402).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1129-30606).
10. **SHALL** contain exactly one [1..1] statusCode (CONF:1129-30394).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1129-30403).

11. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1129-30589).
  - a. This **effectiveTime** **SHALL** contain exactly one [1..1] **@nullFlavor="NA"** (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1129-30590).
12. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:1129-30395).
  - a. This value **SHALL** contain exactly one [1..1] **@code="2048-7"** Isolate tested positive for carbapenemase (CONF:1129-30404).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.277"** (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1129-30441).

If the value of **@negationInd** is "false" this observation is required to contain at least one of the following **entryRelationships**.

13. **SHOULD** contain zero or more [0..\*] **entryRelationship** (CONF:1129-30392) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CONF:1129-30400).
  - b. **SHALL** contain exactly one [1..1] Carbapenemase Type Identified Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.226:2014-12-01) (CONF:1129-30462).



**Figure 143: Positive Test for Carbapenemase Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Result Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.2" />
  <!-- Positive Test for Carbapenemase Observation templateId-->
  <templateId root="2.16.840.1.113883.10.20.5.6.225"
    extension="2014-12-01"/>
  <id nullFlavor="NA"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
    codeSystemName="ActCode"/>
  <statusCode code="completed"/>
  <effectiveTime nullFlavor="NA"/>
  <value xsi:type="CD" code="2048-7"
    displayName="Isolate tested positive for carbapenemase"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"/>
  <entryRelationship typeCode="COMP">
    <!-- Carbapenemase Type Identified Observation -->
    <observation classCode="OBS" moodCode="EVN">
      <!-- C-CDA Result Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
      <!-- Carbapenemase Type Identified Observation templateId-->
      <templateId root="2.16.840.1.113883.10.20.5.6.226"
        extension="2014-12-01"/>
      ...
    </observation>
  </entryRelationship>
  <entryRelationship typeCode="COMP">
    <!-- Carbapenemase Type Identified Observation -->
    <observation classCode="OBS" moodCode="EVN">
      <!-- C-CDA Result Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.2"/>
      <!-- Carbapenemase Type Identified Observation templateId-->
      <templateId root="2.16.840.1.113883.10.20.5.6.226"
        extension="2014-12-01"/>
      ...
    </observation>
  </entryRelationship>
</observation>
```

### 3.93 Post-Procedure Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.150 (closed)]

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**Table 396: Post-Procedure Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Details Section in a BSI Report</a> (optional) <a href="#">Infection Details Section in a UTI Report</a> (optional) <a href="#">Infection Details Section in a VAE Report</a> (optional)	<a href="#">Procedure Details Clinical Statement in an Infection-Type Report</a> (optional)

This clinical statement represents a post procedure. In the context in which it is used in the HAI IG, this observation records whether the reported infection occurred during a post-procedure period. If the infection was post-procedure, then a date of the procedure and a procedure code are required. If the infection was post-procedure, set the value of @negationInd to false. If the infection was not post-procedure, set the value of @negationInd to true.

**Table 397: Post-Procedure Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.150)					
@classCode	1..1	SHALL		<a href="#">86-19715</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-19716</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-19717</a>	
templateId	1..1	SHALL		<a href="#">86-28265</a>	
@root	1..1	SHALL		<a href="#">86-28266</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-19742</a>	
@root	1..1	SHALL		<a href="#">86-19743</a>	2.16.840.1.113883.10.20.5.6.150
id	1..1	SHALL		<a href="#">86-19882</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22782</a>	NA
code	1..1	SHALL		<a href="#">86-19719</a>	
@code	1..1	SHALL		<a href="#">86-19720</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28397</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-19721</a>	
@code	1..1	SHALL		<a href="#">86-19722</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-19784</a>	
@code	1..1	SHALL		<a href="#">86-19785</a>	3188-0
@codeSystem	1..1	SHALL		<a href="#">86-19786</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
entryRelationship	0..1	SHOULD		<a href="#">86-19725</a>	
@typeCode	1..1	SHALL		<a href="#">86-19726</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
procedure	1..1	SHALL		<a href="#">86-19727</a>	<a href="#">Procedure Details Clinical Statement in an Infection-Type Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.154)</a>

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-19715).

3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-19716).
4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:86-19717).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28265) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28266).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-19742) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.150" (CONF:86-19743).
7. **SHALL** contain exactly one [1..1] **id** (CONF:86-19882).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22782).
8. **SHALL** contain exactly one [1..1] **code** (CONF:86-19719).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:86-19720).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28397).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-19721).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-19722).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:86-19784).
  - a. This value **SHALL** contain exactly one [1..1] **@code**="3188-0" Infection occurred post-procedure (CONF:86-19785).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:86-19786).
11. **SHOULD** contain zero or one [0..1] **entryRelationship** (CONF:86-19725).
  - a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@typeCode**="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:86-19726).
  - b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] [Procedure Details Clinical Statement in an Infection-Type Report](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.154) (CONF:86-19727).
  - c. If the value of **@negationInd** is false this entryRelationship **SHALL** be present (CONF:86-19728).

**Figure 144: Post-Procedure Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Post-procedure Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.150"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.5.4"
    code="ASSERTION"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="3188-0"
    displayName="Infection occurred post-procedure"/>
  ...
  <entryRelationship typeCode="REFR">
    <procedure classCode="PROC" moodCode="EVN">
      <!-- C-CDA Procedure Activity Procedure template -->
      <templateId root="2.16.840.1.113883.10.20.22.4.14" />
      <!-- HAI Procedure Details CS in an infection-type report template -->
      <templateId root="2.16.840.1.113883.10.20.5.6.154" />
      ...
    </procedure>
  </entryRelationship>
</observation>
```

### 3.94 Primary C. Difficile Testing Method This Quarter

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.221:2014-12-01  
(closed)]

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**Table 398: Primary C. Difficile Testing Method This Quarter Contexts**

Contained By:	Contains:
<a href="#">Summary Data Section (POM) [V3]</a> (optional)	

This template represents the primary testing method for C. difficile that is used most often for this quarter by the facility's laboratory or by the outside laboratory where the facility's testing is performed. If the testing method is other than one specified in NHSNCdiffTestMethod value set, use value/@nullFlavor="OTH" and enter the testing method in value/originalText.

**Table 399: Primary C. Difficile Testing Method This Quarter Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.221:2014-12-01)					
@classCode	1..1	SHALL		<a href="#">1129-30327</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1129-30328</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1129-30534</a>	
@root	1..1	SHALL		<a href="#">1129-30535</a>	2.16.840.1.113883.10.20.5.6.221
@extension	1..1	SHALL		<a href="#">1129-30536</a>	2014-12-01
code	1..1	SHALL		<a href="#">1129-30318</a>	
@code	1..1	SHALL		<a href="#">1129-30323</a>	2029-7
@codeSystem	1..1	SHALL		<a href="#">1129-30324</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
statusCode	1..1	SHALL		<a href="#">1129-30320</a>	
@code	1..1	SHALL		<a href="#">1129-30326</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">1129-30329</a>	urn:oid:2.16.840.1.114222.4.117242 (NHSNCdiffTestMethod)
@nullFlavor	0..1	MAY		<a href="#">1129-30331</a>	OTH
originalText	0..1	MAY		<a href="#">1129-30332</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1129-30327).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1129-30328).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-30534) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.221" (CONF:1129-30535).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-12-01" (CONF:1129-30536).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1129-30318).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="2029-7" C. difficile primary testing method used most often for this quarter (CONF:1129-30323).

- b. This code **SHALL** contain exactly one [1..1]  
`@codeSystem="2.16.840.1.113883.6.277"` (CodeSystem: CDCNHSN  
urn:oid:2.16.840.1.113883.6.277 **STATIC**) (CONF:1129-30324).
- 5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1129-30320).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] `@code="completed"` Completed  
(CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**)  
(CONF:1129-30326).
- 6. **SHALL** contain exactly one [1..1] **value** with `@xsi:type="CD"`, where the code **SHOULD** be  
selected from ValueSet [NHSNCdiffTestMethod](#) urn:oid:2.16.840.1.114222.4.11.7242  
**DYNAMIC** (CONF:1129-30329).

If the testing method is other than one specified in NHSN, use `nullFlavor="OTH"` and enter testing method in `originalText`.

- a. This value **MAY** contain zero or one [0..1] `@nullFlavor="OTH"` (CONF:1129-30331).
- If `nullFlavor="OTH"` then the testing method is to be entered in `originalText`.
- b. This value **MAY** contain zero or one [0..1] **originalText** (CONF:1129-30332).

**Table 400: NHSNCdiffTestMethod**

Value Set: NHSNCdiffTestMethod urn:oid:2.16.840.1.114222.4.11.7242 (Clinical Focus: NHSN surveillance reporting: Testing details for C. difficile),(Data Element Scope: An observation value that represents the primary testing method for C. difficile that is used most often for this quarter by the facility's laboratory or by the outside laboratory where the facility's testing is performed.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 12/8/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7242/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7242/expansion</a>			
Code	Code System	Code System OID	Print Name
2030-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Enzyme immunoassay (EIA) for toxin
2031-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Cell cytotoxicity neutralization assay
2032-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Nucleic acid amplification test (NAAT)
2033-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Glutamate dehydrogenase (GDH) antigen plus enzyme immunoassay (EIA) for toxin
2034-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Glutamate dehydrogenase (GDH) plus nucleic acid amplification test (NAAT)
2035-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Glutamate dehydrogenase (GDH) plus enzyme immunoassay (EIA) for toxin, followed by nucleic acid amplification test (NAAT) for discrepant results
2036-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Toxigenic culture
2057-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Nucleic acid amplification test (NAAT) plus enzyme immunoassay (EIA), if NAAT positive (2-step algorithm)



**Figure 145: Primary C. Difficile Testing Method This Quarter Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Primary C. Difficile Testing Method This Quarter templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.221"
    extension="2014-12-01"/>
  <code codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="2029-7"
    displayName="C. difficile primary testing method used most often for this
      quarter"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="2034-7"
    displayName="GDHNAAT - GDH plus NAAT"/>
</observation>
```

**Figure 146: Primary C. Difficile Testing Method This Quarter - Other Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Primary C. Difficile Testing Method This Quarter templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.221"
    extension="2014-12-01" />
  <code codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="2029-7"
    displayName="C. difficile primary testing method used most often for this quarter" />
  <statusCode code="completed" />
  <value xsi:type="CD" nullFlavor="OTH">
    <originalText>
      Testing method other than one specified in NHSN value set
    </originalText>
  </value>
</observation>
```

### 3.95 Prior Discharge Encounter (V2)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.151:2014-12-01  
(closed)]

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**Table 401: Prior Discharge Encounter (V2) Contexts**

Contained By:	Contains:
<a href="#">Encounters Section in a LIO Report (V2)</a> (required)	

This template records the date of a prior discharge from the facility. It is used in a LIO Report to record a past discharge within the past four weeks. If the Prior Discharge Encounter is not applicable, use nullFlavor="NA".

**Table 402: Prior Discharge Encounter (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.151:2014-12-01)					
@nullFlavor	0..1	MAY		<a href="#">1129-30478</a>	NA
@classCode	1..1	SHALL		<a href="#">1129-21703</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">1129-21704</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1129-30488</a>	
@root	1..1	SHALL		<a href="#">1129-30489</a>	2.16.840.1.113883.10.20.22.4.49
templateId	1..1	SHALL		<a href="#">1129-21714</a>	
@root	1..1	SHALL		<a href="#">1129-21715</a>	2.16.840.1.113883.10.20.5.6.151
@extension	1..1	SHALL		<a href="#">1129-30275</a>	2014-12-01
id	1..*	SHALL		<a href="#">1129-21705</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-21706</a>	NA
code	1..1	SHALL		<a href="#">1129-21707</a>	
@code	1..1	SHALL		<a href="#">1129-21708</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = IMP
effectiveTime	1..1	SHALL		<a href="#">1129-21709</a>	
@nullFlavor	0..1	MAY		<a href="#">1129-30490</a>	NA
high	0..1	SHOULD		<a href="#">1129-30423</a>	
@value	1..1	SHALL		<a href="#">1129-21711</a>	

1. Conforms to Encounter Activities template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.49).

Use nullFlavor="NA" where the prior discharge encounter is not applicable.

2. **MAY** contain zero or one [0..1] @nullFlavor="NA" (CONF:1129-30478).
3. **SHALL** contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1129-21703).
4. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1129-21704).

5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-30488) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.49" (CONF:1129-30489).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-21714) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.151" (CONF:1129-21715).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-12-01" (CONF:1129-30275).
7. **SHALL** contain at least one [1..\*] **id** (CONF:1129-21705).
  - a. Such ids **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:1129-21706).
8. **SHALL** contain exactly one [1..1] **code** (CONF:1129-21707).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="IMP" Inpatient encounter (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4 **STATIC**) (CONF:1129-21708).
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1129-21709).

Use nullFlavor="NA" where the prior discharge encounter is not applicable.

- a. This effectiveTime **MAY** contain zero or one [0..1] **@nullFlavor**="NA" (CONF:1129-30490).
- b. This effectiveTime **SHOULD** contain zero or one [0..1] **high** (CONF:1129-30423).

This date must be within the past four weeks.

- i. The high, if present, **SHALL** contain exactly one [1..1] **@value** (CONF:1129-21711).

**Figure 147: Prior Discharge Encounter (V2) Example**

```
<encounter classCode="ENC" moodCode="EVN">
  <!-- C-CDA Encounter activity template -->
  <templateId root="2.16.840.1.113883.10.20.22.4.49" />
  <!-- HAI Prior Discharge Encounter (V2) template -->
  <templateId root="2.16.840.1.113883.10.20.5.6.151"
    extension="2014-12-01"/>
  <id nullFlavor="NA" />
  <code codeSystem="2.16.840.1.113883.5.4"
    code="IMP"
    displayName="Inpatient encounter" />
  <effectiveTime>
    <high value="20081205"/>
  </effectiveTime>
</encounter>
```

**Figure 148: Prior Discharge Encounter (V2) - Not Applicable Example**

```
<encounter classCode="ENC" moodCode="EVN" nullFlavor="NA">
  <!-- CCD Encounter activity templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.49" />
  <!-- HAI Prior Discharge Encounter (V2) templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.151"
    extension="2014-12-01" />
  <id nullFlavor="NA" />
  <code codeSystem="2.16.840.1.113883.5.4"
    code="IMP"
    displayName="Inpatient encounter" />
  <effectiveTime nullFlavor="NA" />
</encounter>
```

**3.96 Procedure Details Clinical Statement in a CLIP Report**

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.155 (closed)]

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**Table 403: Procedure Details Clinical Statement in a CLIP Report Contexts**

Contained By:	Contains:
<a href="#">Procedure Details Section in a CLIP Report</a> (required)	<a href="#">PICC/IV Team</a> (required) <a href="#">Recorder Observation</a> (required) <a href="#">Reason for Procedure Observation</a> (required)

This clinical statement records the detail required in a CLIP Report about the central-line insertion procedure.

If the procedure resulted in a successful central-line insertion, set the value of statusCode/@code to "completed". If the procedure did not result in a successful central-line insertion, set the value of statusCode/@code to "aborted".

The performer element records the identifier and role of the person who performed the procedure. The participant element identifies the catheter type.

**Table 404: Procedure Details Clinical Statement in a CLIP Report Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.155)					
@classCode	1..1	SHALL		<a href="#">86-21605</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">86-21606</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-28267</a>	
@root	1..1	SHALL		<a href="#">86-28268</a>	2.16.840.1.113883.10.20.22.4.14
templateId	1..1	SHALL		<a href="#">86-21637</a>	
@root	1..1	SHALL		<a href="#">86-21638</a>	2.16.840.1.113883.10.20.5.6.155
id	1..1	SHALL		<a href="#">86-21639</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22784</a>	NA
code	1..1	SHALL		<a href="#">86-21607</a>	
@code	1..1	SHALL		<a href="#">86-21608</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 233527006
statusCode	1..1	SHALL		<a href="#">86-21609</a>	urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode)
effectiveTime	1..1	SHALL		<a href="#">86-21610</a>	
targetSiteCode	1..1	SHALL		<a href="#">86-21611</a>	urn:oid:2.16.840.1.114222.4.11.3180 (NHSNInsertionSiteCode)
performer	1..1	SHALL		<a href="#">86-21613</a>	
assignedEntity	1..1	SHALL		<a href="#">86-21614</a>	
id	1..1	SHALL		<a href="#">86-21615</a>	
code	1..1	SHALL		<a href="#">86-21617</a>	
participant	1..1	SHALL		<a href="#">86-21619</a>	
@typeCode	1..1	SHALL		<a href="#">86-21620</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV
participantRole	1..1	SHALL		<a href="#">86-21621</a>	
@classCode	1..1	SHALL		<a href="#">86-21622</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
playingDevice	1..1	SHALL		<a href="#">86-21623</a>	
code	1..1	SHALL		<a href="#">86-21624</a>	
entryRelationship	1..1	SHALL		<a href="#">86-21626</a>	
@typeCode	1..1	SHALL		<a href="#">86-21627</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">86-21628</a>	<a href="#">Recorder Observation (identifier:</a>

XPath	Card.	Verb	Data Type	CONF#	Value
					<a href="#">urn:oid:2.16.840.1.113883.10.20.5.6.159</a>
entryRelationship	1..1	SHALL		<a href="#">86-21629</a>	
@typeCode	1..1	SHALL		<a href="#">86-21630</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">86-21631</a>	<a href="#">Reason for Procedure Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.158)</a>
entryRelationship	1..1	SHALL		<a href="#">86-21632</a>	
@typeCode	1..1	SHALL		<a href="#">86-21633</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">86-21634</a>	<a href="#">PICC/IV Team (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.148)</a>

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. **SHALL** contain exactly one [1..1] **@classCode**="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21605).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21606).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28267) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.14" (CONF:86-28268).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-21637) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.155" (CONF:86-21638).
6. **SHALL** contain exactly one [1..1] **id** (CONF:86-21639).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22784).
7. **SHALL** contain exactly one [1..1] **code** (CONF:86-21607).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="233527006" Central-line insertion (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:86-21608).
8. **SHALL** contain exactly one [1..1] **statusCode**, which **SHALL** be selected from ValueSet [ProcedureAct statusCode](#) urn:oid:2.16.840.1.113883.11.20.9.22 **DYNAMIC** (CONF:86-21609).
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:86-21610).
10. **SHALL** contain exactly one [1..1] **targetSiteCode**, which **SHALL** be selected from ValueSet [NHSNInsertionSiteCode](#) urn:oid:2.16.840.1.114222.4.11.3180 **DYNAMIC** (CONF:86-21611).
11. **SHALL** contain exactly one [1..1] **performer** (CONF:86-21613).

- a. This performer **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:86-21614).
  - i. This assignedEntity **SHALL** contain exactly one [1..1] **id** (CONF:86-21615).
    - 1. If the performer ID is not known, the value of performer/assignedEntity/id/@nullFlavor **SHALL** be UNK (CONF:86-21616).
  - ii. This assignedEntity **SHALL** contain exactly one [1..1] **code** (CONF:86-21617).
    - 1. If the occupation is recorded as a code, the value of @code **SHALL** be selected from ValueSet 2.16.840.1.114222.4.11.3181 NHSNRoleOfPerformerCode **DYNAMIC**. If the occupation is recorded as text, the value of @nullFlavor **SHALL** be OTH and the code element **SHALL** contain an originalText element recording the occupation of the performer (CONF:86-21618).
- 12. **SHALL** contain exactly one [1..1] **participant** (CONF:86-21619).
  - a. This participant **SHALL** contain exactly one [1..1] @typeCode="DEV" Device (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:86-21620).
  - b. This participant **SHALL** contain exactly one [1..1] **participantRole** (CONF:86-21621).
    - i. This participantRole **SHALL** contain exactly one [1..1] @classCode="MANU" Manufactured product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:86-21622).
    - ii. This participantRole **SHALL** contain exactly one [1..1] **playingDevice** (CONF:86-21623).
      - 1. This playingDevice **SHALL** contain exactly one [1..1] **code** (CONF:86-21624).
        - a. To record the catheter type as a code, the value of @code **SHALL** be selected from ValueSet 2.16.840.1.114222.4.11.3185 NHSNCatheterTypeCode **DYNAMIC**. Or, to record the catheter type as text, the value of @nullFlavor **SHALL** be OTH and an originalText element **SHALL** be present (CONF:86-21625).
- 13. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:86-21626) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:86-21627).
  - b. **SHALL** contain exactly one [1..1] Recorder Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.159) (CONF:86-21628).
- 14. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:86-21629) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:86-21630).
  - b. **SHALL** contain exactly one [1..1] Reason for Procedure Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.158) (CONF:86-21631).
- 15. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:86-21632) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:86-21633).
- b. **SHALL** contain exactly one [1..1] [PICC/IV Team](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.148) (CONF:86-21634).

**Table 405: ProcedureAct statusCode**

Value Set: ProcedureAct statusCode urn:oid:2.16.840.1.113883.11.20.9.22 (Clinical Focus: Status of a procedure activity),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )			
This value set was imported on 10/24/2024 with a version of Latest.			
Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.22/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.22/expansion</a>			
Code	Code System	Code System OID	Print Name
aborted	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	aborted
active	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	active
cancelled	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	cancelled
completed	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	completed



**Table 406: NHSNInsertionSiteCode**

Value Set: NHSNInsertionSiteCode urn:oid:2.16.840.1.114222.4.11.3180 (Clinical Focus: Catheter insertion site for NHSN surveillance reporting of Central Line Insertion Practices (CLIP) adherence),(Data Element Scope: A code identifying the insertion target site.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3180/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3180/expansion</a>			
Code	Code System	Code System OID	Print Name
122774002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of vein of lower extremity (body structure)
122775001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of vein of upper extremity (body structure)
307054003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of scalp vein (body structure)
408728001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of umbilical blood vessel (body structure)
63190004	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of jugular vein (body structure)
83419000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Femoral vein structure (body structure)
9454009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of subclavian vein (body structure)

**Table 407: NHSNRoleOfPerformerCode**

Value Set: NHSNRoleOfPerformerCode urn:oid:2.16.840.1.114222.4.11.3181 (Clinical Focus: NHSN surveillance reporting: procedure details about central-line insertion practices (CLIP) adherence. Care team member who inserted the central line.),(Data Element Scope: A code describing the role of the performer in a procedure.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3181/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3181/expansion</a>			
Code	Code System	Code System OID	Print Name
163W00000X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.113883.6.101	Nursing Service Providers; Registered Nurse
2212-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	PICC team
363L00000X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.113883.6.101	Physician Assistants & Advanced Practice Nursing Providers; Nurse Practitioner
398130009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Medical student (occupation)
405277009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Resident physician (occupation)
405279007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Attending physician (occupation)
4100-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	IV team
4101-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Physician assistant
4102-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Medical staff not otherwise specified
4103-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Fellow
...			

**Table 408: NHSNCatheterTypeCode**

Value Set: NHSNCatheterTypeCode urn:oid:2.16.840.1.114222.4.11.3185 (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the type of catheter.), (Data Element Scope: A device type code that identifies the catheter type used in a central-line insertion procedure.), (Inclusion Criteria: ), (Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3185/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3185/expansion</a>			
Code	Code System	Code System OID	Print Name
1116-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Umbilical
1117-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Tunneled (dialysis)
1118-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Tunneled (other than dialysis)
1119-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Non-tunneled (dialysis)
1120-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Non-tunneled (other than dialysis)
3115-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Peripherally inserted central catheter (PICC)

**Figure 149: Procedure Details Clinical Statement in a CLIP Report Example**

```
<procedure moodCode="EVN" classCode="PROC">
  <!-- C-CDA Procedure Activity Procedure templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.14" />
  <!-- HAI Procedure Details Clinical Statement in a CLIP Report templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.155" />
  <id nullFlavor="NA" />
  <code code="233527006"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED CT"
        displayName="Central-line Insertion" />
  <statusCode code="completed" />
  <effectiveTime value="20080805" />
  <targetSiteCode code="83419000"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED CT"
        displayName="Femoral vein" />
  <performer>
    <assignedEntity>
      <id nullFlavor="UNK" />
      <code codeSystem="2.16.840.1.113883.6.277"
            codeSystemName="cdcNHSN"
            code="4101-2"
            displayName="Physician assistant" />
    </assignedEntity>
  </performer>
  <participant typeCode="DEV">
    <participantRole classCode="MANU">
      <playingDevice>
        <code codeSystem="2.16.840.1.113883.6.277"
              codeSystemName="cdcNHSN"
              code="1119-7"
              displayName="Non-tunneled central line, dialysis" />
      </playingDevice>
    </participantRole>
  </participant>
  <entryRelationship typeCode="COMP">
    <observation moodCode="EVN" classCode="OBS" negationInd="false">
      <!-- Recorder Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.159"/>
      ...
    </observation>
  </entryRelationship>
  <entryRelationship typeCode="RSON">
    <observation moodCode="EVN" classCode="OBS" negationInd="false">
      <!-- C-CDA Indication templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
      <!-- Reason for Procedure Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.158"/>
      ...
    </observation>
  </entryRelationship>
  <entryRelationship typeCode="COMP">
    <observation moodCode="EVN" classCode="OBS" negationInd="false">
      <!-- PICC/IV Team templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.148"/>
```

```
...
</observation>
</entryRelationship>
</procedure>
```

3.97 Procedure Details Clinical Statement in a Procedure Report (V2)

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.153.2 (closed)]

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Table 409: Procedure Details Clinical Statement in a Procedure Report (V2) Contexts

Contained By:	Contains:
<a href="#">Procedure Details Section in a Procedure Report (V2)</a> (required)	<a href="#">Anesthesia Administration Clinical Statement</a> (required) <a href="#">Closure Technique Procedure</a> (required) <a href="#">Spinal Fusion Level Observation</a> (optional) <a href="#">Revision Associated with Prior Infection Observation</a> (optional)

This clinical statement records the detail required in a Procedure Report about a procedure. NHSN uses the procedure id, along with other data, to establish a link between a Procedure Report and an SSI Report; the value of the procedure id must be the same in both the report of a procedure and the report of a surgical-site infection resulting from that procedure. In this template, the priority code represents the main or primary procedure for the patient in the context of this report.

**Table 410: Procedure Details Clinical Statement in a Procedure Report (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.153.2)					
@classCode	1..1	SHALL		<a href="#">1101-21654</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">1101-21655</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1101-30303</a>	
@root	1..1	SHALL		<a href="#">1101-30304</a>	2.16.840.1.113883.10.20.22.4.14
templateId	1..1	SHALL		<a href="#">1101-21695</a>	
@root	1..1	SHALL		<a href="#">1101-30250</a>	2.16.840.1.113883.10.20.5.6.153.2
id	1..1	SHALL		<a href="#">1101-21656</a>	
code	1..1	SHALL		<a href="#">1101-21657</a>	urn:oid:2.16.840.1.113883.13.17 (NHSNProcedureCategoryCode)
translation	0..1	MAY		<a href="#">1101-21698</a>	
statusCode	1..1	SHALL		<a href="#">1101-21700</a>	urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode)
effectiveTime	1..1	SHALL		<a href="#">1101-21661</a>	
low	1..1	SHALL		<a href="#">1101-21662</a>	
width	1..1	SHALL		<a href="#">1101-21663</a>	
priorityCode	0..1	MAY		<a href="#">1101-21664</a>	
@nullFlavor	0..1	MAY		<a href="#">1101-21665</a>	NA
@code	0..1	MAY		<a href="#">1101-21666</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 63161005
methodCode	0..1	MAY		<a href="#">1101-21667</a>	
@code	1..1	SHALL		<a href="#">1101-21668</a>	
approachSiteCode	0..1	MAY		<a href="#">1101-21671</a>	
@nullFlavor	0..1	MAY		<a href="#">1101-21672</a>	NI

XPath	Card.	Verb	Data Type	CONF#	Value
@code	0..1	MAY		<a href="#">1101-21673</a>	urn:oid:2.16.840.1.113883.13.2 (NHSNSpinalFusionApproachCode)
performer	0..1	MAY		<a href="#">1101-21675</a>	
@typeCode	1..1	SHALL		<a href="#">1101-21676</a>	PRF
assignedEntity	1..1	SHALL		<a href="#">1101-21677</a>	
id	1..*	SHALL		<a href="#">1101-21678</a>	
@root	1..1	SHALL		<a href="#">1101-21679</a>	
@extension	1..1	SHALL		<a href="#">1101-21681</a>	
entryRelationship	1..1	SHALL		<a href="#">1101-21683</a>	
@typeCode	1..1	SHALL		<a href="#">1101-21684</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
substanceAdministration	1..1	SHALL		<a href="#">1101-21685</a>	<a href="#">Anesthesia Administration Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.112)</a>
entryRelationship	0..1	MAY		<a href="#">1101-21686</a>	
@typeCode	1..1	SHALL		<a href="#">1101-21687</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">1101-21688</a>	<a href="#">Spinal Fusion Level Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.166)</a>
entryRelationship	0..1	SHALL		<a href="#">1101-21690</a>	
@typeCode	1..1	SHALL		<a href="#">1101-21691</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
procedure	1..1	SHALL		<a href="#">1101-21692</a>	<a href="#">Closure Technique Procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.117)</a>
entryRelationship	0..1	MAY		<a href="#">1101-30241</a>	
@typeCode	1..1	SHALL		<a href="#">1101-30242</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType)

XPath	Card.	Verb	Data Type	CONF#	Value
					= COMP
observation	1..1	SHALL		<a href="#">1101-30243</a>	<a href="#">Revision Associated with Prior Infection Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.204</a>

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. **SHALL** contain exactly one [1..1] **@classCode**="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1101-21654).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1101-21655).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1101-30303) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.14" (CONF:1101-30304).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1101-21695) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.153.2" (CONF:1101-30250).
6. **SHALL** contain exactly one [1..1] **id** (CONF:1101-21656).
7. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNProcedureCategoryCode](#) urn:oid:2.16.840.1.113883.13.17 **DYNAMIC** (CONF:1101-21657).
  - a. This code **MAY** contain zero or one [0..1] **translation** (CONF:1101-21698).
    - i. This code/translation **MAY** be used for sending an ICD-10 or CPT code (CONF:1101-21699).
8. **SHALL** contain exactly one [1..1] **statusCode**, which **SHALL** be selected from ValueSet [ProcedureAct statusCode](#) urn:oid:2.16.840.1.113883.11.20.9.22 **DYNAMIC** (CONF:1101-21700).
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1101-21661).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1101-21662).
  - b. This effectiveTime **SHALL** contain exactly one [1..1] **width** (CONF:1101-21663).
10. **MAY** contain zero or one [0..1] **priorityCode** (CONF:1101-21664).
  - a. The priorityCode, if present, **MAY** contain zero or one [0..1] **@nullFlavor**="NA" (CONF:1101-21665).
  - b. The priorityCode, if present, **MAY** contain zero or one [0..1] **@code**="63161005" Principal (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:1101-21666).
11. **MAY** contain zero or one [0..1] **methodCode** (CONF:1101-21667).
  - a. The methodCode, if present, **SHALL** contain exactly one [1..1] **@code** (CONF:1101-21668).



- b. If the procedure category code represents a hip replacement, a methodCode element **SHALL** be present where the value of @code is selected from ValueSet 2.16.840.1.113883.13.3 NHSNHipReplacementCode **DYNAMIC** (CONF:1101-21669).
  - c. If the procedure category code represents a knee replacement, a methodCode element **SHALL** be present where the value of @code is selected from ValueSet 2.16.840.1.113883.13.4 NHSNKneeReplacementCode **DYNAMIC** (CONF:1101-21670).
- 12. **MAY** contain zero or one [0..1] **approachSiteCode** (CONF:1101-21671).
  - a. The approachSiteCode, if present, **MAY** contain zero or one [0..1] @nullFlavor="NI" (CONF:1101-21672).
  - b. The approachSiteCode, if present, **MAY** contain zero or one [0..1] @code, which **SHALL** be selected from ValueSet [NHSNSpinalFusionApproachCode](#) urn:oid:2.16.840.1.113883.13.2 **DYNAMIC** (CONF:1101-21673).
  - c. If the procedure is a fusion or refusion (code/@code is either 2137-8 or 2135-2), an approachSiteCode element **SHALL** be present. If the approach site is known, the value of @code **SHALL** be selected from ValueSet 2.16.840.1.113883.13.2 NHSNSpinalFusionApproachCode **DYNAMIC**. If the approach site is not specified, the value of code@nullFlavor **SHALL** be NI (CONF:1101-21674).
- 13. **MAY** contain zero or one [0..1] **performer** (CONF:1101-21675).
  - a. The performer, if present, **SHALL** contain exactly one [1..1] @typeCode="PRF" (CONF:1101-21676).
  - b. The performer, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1101-21677).
    - i. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1101-21678).
      - 1. Such ids **SHALL** contain exactly one [1..1] @root (CONF:1101-21679).
        - a. This @root **SHALL** be the facility's identifier (CONF:1101-21680).
      - 2. Such ids **SHALL** contain exactly one [1..1] @extension (CONF:1101-21681).
        - a. This @extension **SHALL** be the surgeon's identifier (CONF:1101-21682).
- 14. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:1101-21683) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1101-21684).
  - b. **SHALL** contain exactly one [1..1] [Anesthesia Administration Clinical Statement](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.112) (CONF:1101-21685).
- 15. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1101-21686) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1101-21687).
  - b. **SHALL** contain exactly one [1..1] [Spinal Fusion Level Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.166) (CONF:1101-21688).

- c. If the procedure is a fusion or refusion, this entryRelationship **SHALL** be present (CONF:1101-21689).
16. **SHALL** contain zero or one [0..1] entryRelationship (CONF:1101-21690) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1101-21691).
  - b. **SHALL** contain exactly one [1..1] Closure Technique Procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.117) (CONF:1101-21692).
17. **MAY** contain zero or one [0..1] entryRelationship (CONF:1101-30241) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1101-30242).
  - b. **SHALL** contain exactly one [1..1] Revision Associated with Prior Infection Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.204) (CONF:1101-30243).
  - c. If the procedure is a total revision or a partial revision of an HPRO or KPRO, this entryRelationship **SHALL** be present (CONF:1101-30251).

**Table 411: NHSNProcedureCategoryCode**

Value Set: NHSNProcedureCategoryCode urn:oid:2.16.840.1.113883.13.17 (Clinical Focus: Operative procedure categories used for reporting events such as surgical site infections to NHSN.), (Data Element Scope: A code identifying the type of procedure.), (Inclusion Criteria: ), (Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.17/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.17/expansion</a>			
Code	Code System	Code System OID	Print Name
2101-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Hip prosthesis
2102-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Shunt for dialysis
2103-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Not an NHSN operation
2104-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Other operations
2105-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Abdominal aortic aneurysm repair
2106-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Herniorrhaphy
2107-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Abdominal hysterectomy
2108-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Appendix surgery
2109-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Bile duct, liver or pancreatic surgery
2110-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Breast surgery
...			

**Table 412: NHSNHipReplacementCode**

Value Set: NHSNHipReplacementCode urn:oid:2.16.840.1.113883.13.3 (Clinical Focus: NHSN surveillance reporting: hip replacement procedures for surgical site infections),(Data Element Scope: A method code identifying the type of hip replacement.),(Inclusion Criteria: ),(Exclusion Criteria: )			
This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.3/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.3/expansion</a>			
Code	Code System	Code System OID	Print Name
1413-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	HPRO: Total: Total Primary
1414-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	HPRO: Total: Total Revision
1415-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	HPRO: Total: Partial Revision
1416-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	HPRO: Hemi: Partial Primary
1417-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	HPRO: Hemi: Total Revision
1418-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	HPRO: Hemi: Partial Revision
1419-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	HPRO: Resurfacing: Total Primary
1420-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	HPRO: Resurfacing: Total Revision
1421-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	HPRO: Resurfacing: Partial Primary
1422-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	HPRO: Resurfacing: Partial Revision

**Table 413: NHSNKneeReplacementCode**

Value Set: NHSNKneeReplacementCode urn:oid:2.16.840.1.113883.13.4 (Clinical Focus: NHSN surveillance reporting: knee replacement procedures for surgical site infections),(Data Element Scope: A code identifying the type of knee replacement.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.4/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.4/expansion</a>			
Code	Code System	Code System OID	Print Name
1406-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	KPRO: Total: Total Primary
1407-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	KPRO: Total: Total Revision
1408-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	KPRO: Total: Partial Revision
1409-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	KPRO: Hemi: Partial Primary
1411-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	KPRO: Hemi: Total Revision
1412-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	KPRO: Hemi: Partial Revision

**Table 414: NHSNSpinalFusionApproachCode**

Value Set: NHSNSpinalFusionApproachCode urn:oid:2.16.840.1.113883.13.2 (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the spinal fusion approach.),(Data Element Scope: A coded identifying the spinal fusion procedure approach site.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.2/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.2/expansion</a>			
Code	Code System	Code System OID	Print Name
118438002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Transoral approach (qualifier value)
1205-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Anterior and posterior
255549009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Anterior (qualifier value)
255551008	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Posterior (qualifier value)

**Figure 150: Code Translation Example—Procedure Report**

```
<code code="2105-5"
  displayName="Abdominal aortic aneurysm repair"
  codeSystem="2.16.840.1.113883.6.277"
  codeSystemName="cdcNHSN">
  <translation code="34800"
    codeSystem="2.16.840.1.113883.6.2"
    displayName="ENDOVASCULAR REPAIR OF ABDOMINAL AORTIC ANEURYSM"
    codeSystemName="ICD9CM"/>
</code>
```

**Figure 151: Spinal Fusion Approach Example**

```
<procedure classCode="PROC" moodCode="EVN">
  <!-- C-CDA Procedure Activity Procedure templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.14" />
  <!-- Procedure Details Clinical Statement in a Procedure Report (V2) templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.153.2" />
  <id root="807007ba-c8f0-4842-9c3c-4a4e4c570849" />
  <code codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        code="2137-8"
        displayName="Spinal Fusion" />
  <statusCode code="completed" />
  <!-- The procedure date -->
  <effectiveTime>
    <low value="20061223" />
    <width value="3" unit="h" />
  </effectiveTime>
  <!-- MAY contain -->
  <priorityCode code="63161005"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED CT"
        displayName="Principal"/>
  <!-- Spinal fusion approach site -->
  <approachSiteCode codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        code="1205-4"
        displayName="anterior posterior" />
  <!-- Surgeon who performed the procedure -->
  <performer typeCode="PRF">
    <assignedEntity classCode="ASSIGNED">
      <id root="2.16.840.1.113883.3.117.1.1.5.1.1.1" extension="987654" />
    </assignedEntity>
  </performer>
  <entryRelationship typeCode="COMP">
    <!-- Anesthesia Administration Clinical Statement -->
    <substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="false">
      <!-- C-CDA Medication Activity templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.16" />
      <!-- HAI Anesthesia Administration Clinical Statement templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.112" />
      ...
    </substanceAdministration>
  </entryRelationship>
  <entryRelationship typeCode="COMP">
    <!-- Spinal Fusion Level Observation -->
    <observation classCode="OBS" moodCode="EVN">
      <!-- Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4" />
      <!-- HAI Spinal Fusion Level Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.166" />
      ...
    </observation>
  </entryRelationship>
  <entryRelationship typeCode="COMP">
    <!-- Closure Technique Procedure -->
    <procedure classCode="PROC" moodCode="EVN">
```

```
        <!-- C-CDA Procedure Activity Procedure templateId -->
        <templateId root="2.16.840.1.113883.10.20.22.4.14" />
        <!-- HAI Closure Technique Procedure templateId -->
        <templateId root="2.16.840.1.113883.10.20.5.6.117" />
        ...
    </procedure>
</entryRelationship>
</procedure>
```

**Figure 152: Hip Replacement methodCode Example**

```
<procedure>
    ...
    <methodCode codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        code="1413-4"
        displayName="Total: Total Primary Hip Replacement"/>
</procedure>
```

**Figure 153: Knee Replacement methodCode Example**

```
<procedure>
    ...
    <methodCode codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        code="1406-8"
        displayName="Total: Total Primary Knee Replacement"/>
</procedure>
```

### 3.98 Procedure Details Clinical Statement in an Infection-Type Report

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.154 (closed)]

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**Table 415: Procedure Details Clinical Statement in an Infection-Type Report Contexts**

Contained By:	Contains:
<a href="#">Post-Procedure Observation</a> (optional) <a href="#">Infection Details Section in an SSI Report (V2)</a> (required)	

This clinical statement records the detail required in an infection-type report about a procedure.



**Table 416: Procedure Details Clinical Statement in an Infection-Type Report Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.154)					
@classCode	1..1	SHALL		<a href="#">86-21640</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">86-21641</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-28269</a>	
@root	1..1	SHALL		<a href="#">86-28270</a>	2.16.840.1.113883.10.20.22.4.14
templateId	1..1	SHALL		<a href="#">86-21651</a>	
@root	1..1	SHALL		<a href="#">86-21652</a>	2.16.840.1.113883.10.20.5.6.154
id	1..1	SHALL		<a href="#">86-21642</a>	
code	1..1	SHALL		<a href="#">86-21643</a>	urn:oid:2.16.840.1.113883.13.17 (NHSNProcedureCategoryCode)
translation	0..*	MAY		<a href="#">86-21645</a>	
statusCode	1..1	SHALL		<a href="#">86-21653</a>	urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode)
effectiveTime	1..1	SHALL		<a href="#">86-21647</a>	
low	1..1	SHALL		<a href="#">86-21648</a>	

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. **SHALL** contain exactly one [1..1] **@classCode**="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21640).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21641).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28269) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.14" (CONF:86-28270).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-21651) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.154" (CONF:86-21652).
6. **SHALL** contain exactly one [1..1] **id** (CONF:86-21642).
7. **SHALL** contain exactly one [1..1] **code** (ValueSet: [NHSNProcedureCategoryCode](#) urn:oid:2.16.840.1.113883.13.17 **DYNAMIC**) (CONF:86-21643).
  - a. This code **MAY** contain zero or more [0..\*] **translation** (CONF:86-21645).
    - i. This code/translation **MAY** be used for sending an ICD-10 or CPT code (CONF:86-21646).

8. **SHALL** contain exactly one [1..1] **statusCode** (ValueSet: [ProcedureAct statusCode](#) urn:oid:2.16.840.1.113883.11.20.9.22 **DYNAMIC**) (CONF:86-21653).
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:86-21647).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:86-21648).

**Figure 154: Code Translation Example—Infection-Type Report**

```
<code code="2105-5"
  displayName="Abdominal aortic aneurysm repair"
  codeSystem="2.16.840.1.113883.6.277"
  codeSystemName="cdcNHSN">
  <translation code="34800"
    codeSystem="2.16.840.1.113883.6.2"
    displayName="ENDOVASCULAR REPAIR OF ABDOMINAL AORTIC ANEURYSM"
    codeSystemName="ICD9CM"/>
</code>
```

**Figure 155: Procedure Details Clinical Statement in an Infection-Type Report**

```
<procedure classCode="PROC" moodCode="EVN">
  <!-- C-CDA Procedure Activity Procedure template -->
  <templateId root="2.16.840.1.113883.10.20.22.4.14" />
  <!-- HAI Procedure Details CS in an infection-type report template -->
  <templateId root="2.16.840.1.113883.10.20.5.6.154" />
  <id root="2.16.840.1.113883.3.117.1.1.5.2.1.1.5" extension="21987654321" />
  <code code="2108-9"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    displayName="Appendix surgery" />
  <statusCode code="completed" />
  <effectiveTime>
    <low value="20080805"/>
  </effectiveTime>
</procedure>
```

### 3.99 Procedure Details in an OPC Denominator for Procedure

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.259:2019-04-01 (closed)]

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**Table 417: Procedure Details in an OPC Denominator for Procedure Contexts**

Contained By:	Contains:
<a href="#">Procedure Details Section in an OPC Denominator for Procedure</a> (required)	<a href="#">Anesthesia Administration Clinical Statement</a> (required)

This template represents details about a procedure in an OPC Denominator for Procedure.

NHSN uses the procedure id, along with other data, to establish a link between an OPC Denominator for Procedure and an OPC SSI Event; the value of the procedure id must be the same in both the report of a procedure and the report of a surgical-site infection resulting from that procedure.

**Table 418: Procedure Details in an OPC Denominator for Procedure Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.259:2019-04-01)					
@classCode	1..1	SHALL		<a href="#">4395-30584</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">4395-30585</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">4395-30563</a>	
@root	1..1	SHALL		<a href="#">4395-30586</a>	2.16.840.1.113883.10.20.22.4.14
templateId	1..1	SHALL		<a href="#">4395-30583</a>	
@root	1..1	SHALL		<a href="#">4395-30609</a>	2.16.840.1.113883.10.20.5.6.259
@extension	1..1	SHALL		<a href="#">4395-30610</a>	2019-04-01
id	1..1	SHALL		<a href="#">4395-30587</a>	
@root	1..1	SHALL		<a href="#">4395-30950</a>	
@extension	1..1	SHALL		<a href="#">4395-30951</a>	
code	1..1	SHALL		<a href="#">4395-30564</a>	urn:oid:2.16.840.1.113883.10.20.5.9.34 (NHSNOPCProcedureCategory Code)
translation	1..1	SHALL		<a href="#">4395-30565</a>	urn:oid:2.16.840.1.113883.6.12 (CPT)
statusCode	1..1	SHALL		<a href="#">4395-30589</a>	urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode)
effectiveTime	1..1	SHALL		<a href="#">4395-30566</a>	
low	1..1	SHALL		<a href="#">4395-30590</a>	
width	1..1	SHALL		<a href="#">4395-30591</a>	
performer	0..1	MAY		<a href="#">4395-30570</a>	
@typeCode	1..1	SHALL		<a href="#">4395-30600</a>	PRF
assignedEntity	1..1	SHALL		<a href="#">4395-30571</a>	
id	1..*	SHALL		<a href="#">4395-30572</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@root	1..1	SHALL		<a href="#">4395-30573</a>	
@extension	1..1	SHALL		<a href="#">4395-30574</a>	
entryRelationship	1..1	SHALL		<a href="#">4395-30575</a>	
@typeCode	1..1	SHALL		<a href="#">4395-30603</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
substanceAdministration	1..1	SHALL		<a href="#">4395-30576</a>	<a href="#">Anesthesia Administration Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.112)</a>

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. **SHALL** contain exactly one [1..1] **@classCode**="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4395-30584).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4395-30585).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-30563) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.14" (CONF:4395-30586).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-30583) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.259" (CONF:4395-30609).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30610).
6. **SHALL** contain exactly one [1..1] **id** (CONF:4395-30587).  
Note: Procedure id
  - a. This id **SHALL** contain exactly one [1..1] **@root** (CONF:4395-30950).
  - b. This id **SHALL** contain exactly one [1..1] **@extension** (CONF:4395-30951).
7. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNOPCProcedureCategoryCode](#) urn:oid:2.16.840.1.113883.10.20.5.9.34 **DYNAMIC** (CONF:4395-30564).
  - a. This code **SHALL** contain exactly one [1..1] **translation**, which **SHALL** be selected from CodeSystem CPT (urn:oid:2.16.840.1.113883.6.12) (CONF:4395-30565).  
Note: CPT Procedure Code
8. **SHALL** contain exactly one [1..1] **statusCode**, which **SHALL** be selected from ValueSet [ProcedureAct statusCode](#) urn:oid:2.16.840.1.113883.11.20.9.22 **DYNAMIC** (CONF:4395-30589).
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4395-30566).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:4395-30590).
  - b. This effectiveTime **SHALL** contain exactly one [1..1] **width** (CONF:4395-30591).

10. **MAY** contain zero or one [0..1] **performer** (CONF:4395-30570).
  - a. The performer, if present, **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CONF:4395-30600).
  - b. The performer, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:4395-30571).
    - i. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:4395-30572).
      1. Such ids **SHALL** contain exactly one [1..1] **@root** (CONF:4395-30573).
        - a. This @root **SHALL** be the facility's identifier - this code is assigned by NHSN (CONF:4395-30601).
      2. Such ids **SHALL** contain exactly one [1..1] **@extension** (CONF:4395-30574).
        - a. This @extension **SHALL** be the surgeon's identifier - this code is assigned by the facility (CONF:4395-30602).
11. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:4395-30575) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:4395-30603).
  - b. **SHALL** contain exactly one [1..1] Anesthesia Administration Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.112) (CONF:4395-30576).

**Table 419: NHSNOPCProcedureCategoryCode**

Value Set: NHSNOPCProcedureCategoryCode urn:oid:2.16.840.1.113883.10.20.5.9.34 (Clinical Focus: NHSN surveillance reporting: OPC (Outpatient Procedure Component) procedure categories used for reporting outpatient surgical site infection events to NHSN),(Data Element Scope: A procedure code for OPC procedure categories.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.34/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.34/expansion</a>			
Code	Code System	Code System OID	Print Name
2101-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Hip prosthesis
2102-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Shunt for dialysis
2106-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Herniorrhaphy
2107-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Abdominal hysterectomy
2108-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Appendix surgery
2109-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Bile duct, liver or pancreatic surgery
2110-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Breast surgery
2114-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Carotid endarterectomy
2115-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Cesarean section
2116-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Colon surgery
...			

**Figure 156: Procedure Details in an OPC Denominator for Procedure Example**

```
<procedure classCode="PROC" moodCode="EVN">
  <!-- [C-CDA R1.1] Procedure Activity Procedure -->
  <templateId root="2.16.840.1.113883.10.20.22.4.14" />
  <!-- Procedure Details in an OPC Denominator for Procedure -->
  <templateId root="2.16.840.1.113883.10.20.5.6.259" extension="2019-04-01" />
  <!-- NHSN uses the procedure id, along with other data, to establish a link between
        an OPC Denominator for Procedure and an OPC SSI Event; the value of the
        procedure id must be the same in both the report of a procedure and the report
        of a surgical-site infection resulting from that procedure. -->
  <id root="2.16.840.1.113883.3.117.1.1.5.2.1.1.5" extension="21987654321" />
  <code codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        code="2108-9"
        displayName="Appendix surgery">
    <translation code="44970"
        displayName="Laparoscopic Procedures on the Appendix"
        codeSystem="2.16.840.1.113883.6.12"
        codeSystemName="CPT4" />
  </code>
  <statusCode code="completed" />
  <!-- The procedure date and duration -->
  <effectiveTime>
    <low value="20181223" />
    <width value="90" unit="min" />
  </effectiveTime>
  <!-- Surgeon who performed the procedure -->
  <performer typeCode="PRF">
    <assignedEntity classCode="ASSIGNED">
      <id root="2.16.840.1.113883.3.117.1.1.5.1.1.1" extension="987654" />
    </assignedEntity>
  </performer>
  <!-- general anesthesia? not negated = was used -->
  <entryRelationship typeCode="COMP">
    <!-- [HAI] Anesthesia Administration Clinical Statement -->
    <substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="false">
      <!-- [C-CDA R1.1] Medication Activity templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.16" />
      <!-- [HAI R1] Anesthesia Administration Clinical Statement -->
      <templateId root="2.16.840.1.113883.10.20.5.6.112" />
      ...
    </substanceAdministration>
  </entryRelationship>
</procedure>
```



### 3.100 Procedure Details in an OPC SSI Event

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.265:2019-04-01  
(closed)]

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**Table 420: Procedure Details in an OPC SSI Event Contexts**

Contained By:	Contains:
<a href="#">Infection Details Section in an OPC SSI Report</a> (required)	

This clinical statement records the detail required in an OPC SSI Event report about a procedure. NHSN uses the procedure id, along with other data, to establish a link between an OPC Denominator for Procedure and an OPC SSI Event; the value of the procedure id must be the same in both the report of a procedure and the report of a surgical-site infection resulting from that procedure.

**Table 421: Procedure Details in an OPC SSI Event Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.265:2019-04-01)					
@classCode	1..1	SHALL		<a href="#">4395-30926</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">4395-30927</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">4395-30924</a>	
@root	1..1	SHALL		<a href="#">4395-30931</a>	2.16.840.1.113883.10.20.22.4.14
templateId	1..1	SHALL		<a href="#">4395-30925</a>	
@root	1..1	SHALL		<a href="#">4395-30933</a>	2.16.840.1.113883.10.20.5.6.265
@extension	1..1	SHALL		<a href="#">4395-30934</a>	2019-04-01
id	1..1	SHALL		<a href="#">4395-30928</a>	
@root	1..1	SHALL		<a href="#">4395-30952</a>	
@extension	1..1	SHALL		<a href="#">4395-30953</a>	
code	1..1	SHALL		<a href="#">4395-30921</a>	urn:oid:2.16.840.1.113883.10.20.5.9.34 (NHSNOPCProcedureCategory Code)
translation	1..1	SHALL		<a href="#">4395-30935</a>	urn:oid:2.16.840.1.113883.6.12 (CPT)
statusCode	1..1	SHALL		<a href="#">4395-30932</a>	urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode)
effectiveTime	1..1	SHALL		<a href="#">4395-30923</a>	
low	1..1	SHALL		<a href="#">4395-30930</a>	

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. **SHALL** contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4395-30926).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4395-30927).
4. **SHALL** contain exactly one [1..1] templateId (CONF:4395-30924) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.14" (CONF:4395-30931).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-30925) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.265" (CONF:4395-30933).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30934).
6. **SHALL** contain exactly one [1..1] **id** (CONF:4395-30928).  
 Note: Procedure id
  - a. This id **SHALL** contain exactly one [1..1] **@root** (CONF:4395-30952).
  - b. This id **SHALL** contain exactly one [1..1] **@extension** (CONF:4395-30953).
7. **SHALL** contain exactly one [1..1] **code** (ValueSet: [NHSNOPCProcedureCategoryCode](#) urn:oid:2.16.840.1.113883.10.20.5.9.34 **DYNAMIC**) (CONF:4395-30921).
  - a. This code **SHALL** contain exactly one [1..1] **translation**, which **SHALL** be selected from CodeSystem CPT (urn:oid:2.16.840.1.113883.6.12) (CONF:4395-30935).  
 Note: Primary CPT Code
8. **SHALL** contain exactly one [1..1] **statusCode** (ValueSet: [ProcedureAct statusCode](#) urn:oid:2.16.840.1.113883.11.20.9.22 **DYNAMIC**) (CONF:4395-30932).
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4395-30923).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:4395-30930).

**Figure 157: Procedure Details in an OPC SSI Event**

```
<procedure classCode="PROC" moodCode="EVN">
  <!-- [C-CDA R1.1] Procedure Activity Procedure -->
  <templateId root="2.16.840.1.113883.10.20.22.4.14" />
  <!-- [HAI R3D4] Procedure Details in an OPC SSI Event -->
  <templateId root="2.16.840.1.113883.10.20.5.6.265" extension="2019-04-01" />
  <!-- NHSN uses the procedure id, along with other data, to establish a link between
        an OPC Denominator for Procedure and an OPC SSI Event; the value of the
        procedure id must be the same in both the report of a procedure and the report
        of a surgical-site infection resulting from that procedure. -->
  <id root="2.16.840.1.113883.3.117.1.1.5.2.1.1.5" extension="21987654321" />
  <code code="2108-9"
    displayName="Appendix surgery"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN">
    <translation code="44970"
      displayName="Laparoscopic Procedures on the Appendix"
      codeSystem="2.16.840.1.113883.6.12"
      codeSystemName="CPT4" />
    </code>
  <statusCode code="completed" />
  <effectiveTime>
    <low value="20180805" />
  </effectiveTime>
</procedure>
```

3.101 Procedure Risk Factors Clinical Statement in a Procedure Report

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.156 (closed)]  
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Release 1 - US Realm

Table 422: Procedure Risk Factors Clinical Statement in a Procedure Report Contexts

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a Procedure Report</a> (required) <a href="#">Infection Risk Factors Section in an OPC Denominator for Procedure</a> (required)	<a href="#">Wound Class Observation</a> (required) <a href="#">Endoscope Used Clinical Statement</a> (required)

This clinical statement records the detail required in a Procedure Report about the circumstances in which a procedure was performed.

The value of the id element must be globally unique and in general need not be an identifier used outside the document. Its function is to identify this procedure as being the same as the one documented in the Details Section of the same report.

**Table 423: Procedure Risk Factors Clinical Statement in a Procedure Report Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.156)					
@classCode	1..1	SHALL		<a href="#">86-21319</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">86-21320</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-21990</a>	
@root	1..1	SHALL		<a href="#">86-21991</a>	2.16.840.1.113883.10.20.5.6.156
id	1..1	SHALL		<a href="#">86-21321</a>	
methodCode	0..1	MAY		<a href="#">86-28412</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 373110003
entryRelationship	1..1	SHALL		<a href="#">86-21323</a>	
@typeCode	1..1	SHALL		<a href="#">86-21324</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">86-21325</a>	<a href="#">Wound Class Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.174)</a>
entryRelationship	1..1	SHALL		<a href="#">86-21327</a>	
@typeCode	1..1	SHALL		<a href="#">86-21328</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
procedure	1..1	SHALL		<a href="#">86-21329</a>	<a href="#">Endoscope Used Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.128)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21319).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21320).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-21990) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.156" (CONF:86-21991).
4. **SHALL** contain exactly one [1..1] **id** (CONF:86-21321).
  - a. The value of the id element **SHALL** be the same as the value of the corresponding procedure/id element in the Details Section of the report (CONF:86-21322).

If the procedure was an emergency, the procedure element SHALL contain a methodCode element with the following value:

5. **MAY** contain zero or one [0..1] **methodCode**="373110003" Emergency procedure (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28412).
6. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:86-21323) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:86-21324).
  - b. **SHALL** contain exactly one [1..1] Wound Class Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.174) (CONF:86-21325).
7. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:86-21327) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:86-21328).
  - b. **SHALL** contain exactly one [1..1] Endoscope Used Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.128) (CONF:86-21329).

**Figure 158: Procedure Risk Factors Clinical Statement in a Procedure Report**

```
<procedure classCode="PROC" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.5.6.156"/>
  <id root="2.16.840.1.113883.3.117.1.1.5.2.1.1.4" extension="92"/>

  <!-- Emergency procedure-->
  <methodCode codeSystem="2.16.840.1.113883.6.96"
    code="373110003" displayName="Emergency procedure"/>

  <!-- Wound Class Observation -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.5.6.174"/>
      ...
    </observation>
  </entryRelationship>

  <!-- Endoscope (not negated = was used) -->
  <entryRelationship typeCode="COMP">
    <!-- Endoscope Used Clinical Statement -->
    <procedure classCode="PROC" moodCode="EVN" negationInd="false">
      <templateId root="2.16.840.1.113883.10.20.5.6.128"/>
      ...
    </procedure>
  </entryRelationship>
</procedure>
```

### 3.102 Pus Present in Specimen Site and Matching Organism in Blood and Specimen Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.253:2018-04-01 (closed) ]

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**Table 424: Pus Present in Specimen Site and Matching Organism in Blood and Specimen Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a BSI Report (V3)</a> (required)	

This observation records whether a matching organism is identified both in blood and from a site-specific specimen, both collected within the infection window period, and pus is present at the vascular site from which the specimen was collected.

If there was pus present at vascular specimen collection site and matching organism identified in blood and from site specific specimen(s), set the value of @negationInd to false. If there was not pus present at vascular specimen collection site and matching organism identified in blood and from site specific specimen(s), set the value of @negationInd to true.

**Table 425: Pus Present in Specimen Site and Matching Organism in Blood and Specimen Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.253:2018-04-01)					
@classCode	1..1	SHALL		<a href="#">3357-30689</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">3357-30690</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">3357-30691</a>	
templateId	1..1	SHALL		<a href="#">3357-30674</a>	
@root	1..1	SHALL		<a href="#">3357-30680</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">3357-30679</a>	
@root	1..1	SHALL		<a href="#">3357-30687</a>	2.16.840.1.113883.10.20.5.6.253
@extension	1..1	SHALL		<a href="#">3357-30688</a>	2018-04-01
id	1..1	SHALL		<a href="#">3357-30675</a>	
@nullFlavor	1..1	SHALL		<a href="#">3357-30681</a>	NA
code	1..1	SHALL		<a href="#">3357-30676</a>	
@code	1..1	SHALL		<a href="#">3357-30682</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">3357-30683</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">3357-30677</a>	
@code	1..1	SHALL		<a href="#">3357-30684</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">3357-30678</a>	
@code	1..1	SHALL	CS	<a href="#">3357-30685</a>	3059-3
@codeSystem	1..1	SHALL		<a href="#">3357-30686</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
participant	0..1	MAY		<a href="#">3357-30695</a>	
@typeCode	1..1	SHALL		<a href="#">3357-30698</a>	DEV



XPath	Card.	Verb	Data Type	CONF#	Value
participantRole	1..1	SHALL		<a href="#">3357-30696</a>	
@classCode	1..1	SHALL		<a href="#">3357-30871</a>	MANU
playingDevice	1..1	SHALL		<a href="#">3357-30697</a>	
code	1..1	SHALL		<a href="#">3357-30700</a>	urn:oid:2.16.840.1.113883.10.20.5.9.24 (NHSNVascularSpecimenCollectionSite)

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3357-30689).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3357-30690).

If there was pus present at vascular specimen collection site and matching organism identified in blood and from site specific specimen(s), set the value of @negationInd to false. If there was not pus present at vascular specimen collection site and matching organism identified in blood and from site specific specimen(s), set the value of @negationInd to true.

4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:3357-30691).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-30674) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.4" (CONF:3357-30680).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-30679) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.253" (CONF:3357-30687).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2018-04-01" (CONF:3357-30688).
7. **SHALL** contain exactly one [1..1] **id** (CONF:3357-30675).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:3357-30681).
8. **SHALL** contain exactly one [1..1] **code** (CONF:3357-30676).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:3357-30682).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3357-30683).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3357-30677).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:3357-30684).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:3357-30678).

- a. This value **SHALL** contain exactly one [1..1] @code="3059-3" Pus present at vascular specimen collection site and matching organism identified in blood and from site specific specimen(s) (CONF:3357-30685).
- b. This value **SHALL** contain exactly one [1..1]  
@codeSystem="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN  
urn:oid:2.16.840.1.113883.6.277) (CONF:3357-30686).

If the value of @negationInd is 'false', this observation SHALL contain exactly one [[[1..1] participant element representing the vascular specimen collection site where pus was present.

11. **MAY** contain zero or one [0..1] **participant** (CONF:3357-30695).

- a. The participant, if present, **SHALL** contain exactly one [1..1] @typeCode="DEV" Device (CONF:3357-30698).
- b. The participant, if present, **SHALL** contain exactly one [1..1] **participantRole** (CONF:3357-30696).
  - i. This participantRole **SHALL** contain exactly one [1..1] @classCode="MANU" Manufactured device (CONF:3357-30871).
  - ii. This participantRole **SHALL** contain exactly one [1..1] **playingDevice** (CONF:3357-30697).
    1. This playingDevice **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet  
[NHSNVascularSpecimenCollectionSite](#)  
urn:oid:2.16.840.1.113883.10.20.5.9.24 **DYNAMIC** (CONF:3357-30700).

**Table 426: NHSNVascularSpecimenCollectionSite**

Value Set: NHSNVascularSpecimenCollectionSite urn:oid:2.16.840.1.113883.10.20.5.9.24 (Clinical Focus: NHSN surveillance reporting: Site of vascular specimen collection.),(Data Element Scope: A code identifying the site of vascular specimen collection.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.24/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.24/expansion</a>			
Code	Code System	Code System OID	Print Name
303727009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Arterial catheter (physical object)
3060-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Peripheral intravenous or midline catheter
3061-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Atrial lines (right and left)
3062-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Hemodialysis reliable outflow (HERO) catheter
3063-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Intra-aortic balloon pump (IABP) device
3064-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Non-accessed central line (not accessed nor inserted during the hospitalization)
439218000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Surgically constructed arteriovenous graft (finding)
439784005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Surgically constructed arteriovenous fistula (finding)

**Figure 159: Pus Present in Specimen Site and Matching Organism in Blood and Specimen Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- [C-CDA R1.1] Problem Observation -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4" />
  <!-- [HAI R3D3] Pus Present in Specimen Site and Matching Organism in Blood and Specimen
  -->
  <templateId root="2.16.840.1.113883.10.20.5.6.253" extension="2018-04-01" />
  <id nullFlavor="NA" />
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
  <statusCode code="completed" />
  <value xsi:type="CD"
    code="3059-3"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    displayName="Pus present at vascular specimen collection site and matching organism
    identified in blood and from site specific specimen(s)" />
  <participant typeCode="DEV">
    <participantRole classCode="MANU">
      <playingDevice>
        <code code="3060-1"
          displayName="Peripheral IV or midline catheter"
          codeSystem="2.16.840.1.113883.6.277"
          codeSystemName="cdcNHSN"/>
      </playingDevice>
    </participantRole>
  </participant>
</observation>
```

### 3.103 Pus, Redness, or Increased Swelling Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.157:2019-04-01 (closed)]

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**Table 427: Pus, Redness, or Increased Swelling Observation (V2) Contexts**

Contained By:	Contains:
<a href="#">Infection Indicator Organizer (V5)</a> (required)	

This observation records whether pus, redness, or increased swelling was observed. It is used in an Evidence of Infection (Dialysis) Report to record whether this was observed at a vascular access site. If the infection indicator was present, set the value of @negationInd to false and record the event date in effectiveTime/low/@value. If the infection indicator was not present, set the value of @negationInd to true and set effectiveTime/low/@nullFlavor='NA'.

**Table 428: Pus, Redness, or Increased Swelling Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.157:2019-04-01)					
@classCode	1..1	SHALL		<a href="#">4395-19900</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4395-19901</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">4395-19902</a>	
templateId	1..1	SHALL		<a href="#">4395-28271</a>	
@root	1..1	SHALL		<a href="#">4395-28272</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">4395-19905</a>	
@root	1..1	SHALL		<a href="#">4395-19906</a>	2.16.840.1.113883.10.20.5.6.157
@extension	1..1	SHALL		<a href="#">4395-30682</a>	2019-04-01
id	1..1	SHALL		<a href="#">4395-19907</a>	
@nullFlavor	1..1	SHALL		<a href="#">4395-22788</a>	NA
code	1..1	SHALL		<a href="#">4395-19908</a>	
@code	1..1	SHALL		<a href="#">4395-19909</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">4395-28396</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">4395-19910</a>	
@code	1..1	SHALL		<a href="#">4395-19911</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">4395-30680</a>	
low	1..1	SHALL		<a href="#">4395-30681</a>	
@nullFlavor	0..1	MAY		<a href="#">4395-30683</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA
@value	0..1	MAY		<a href="#">4395-30684</a>	
value	1..1	SHALL	CD	<a href="#">4395-19912</a>	
@code	1..1	SHALL		<a href="#">4395-19913</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2305-1

XPath	Card.	Verb	Data Type	CONF#	Value
participant	0..*	MAY		<a href="#">4395-20937</a>	
@typeCode	1..1	SHALL		<a href="#">4395-19915</a>	DEV
participantRole	1..1	SHALL		<a href="#">4395-19916</a>	
@classCode	1..1	SHALL		<a href="#">4395-19921</a>	MANU
playingDevice	1..1	SHALL		<a href="#">4395-19917</a>	
code	1..1	SHALL		<a href="#">4395-19918</a>	

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4395-19900).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4395-19901).

If the infection indicator was present, set the value of @negationInd to false. If the infection indicator was not present, set the value of @negationInd to true.

4. **SHALL** contain exactly one [1..1] @negationInd (CONF:4395-19902).
5. **SHALL** contain exactly one [1..1] templateId (CONF:4395-28271) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:4395-28272).
6. **SHALL** contain exactly one [1..1] templateId (CONF:4395-19905) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.157" (CONF:4395-19906).
  - b. **SHALL** contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30682).
7. **SHALL** contain exactly one [1..1] id (CONF:4395-19907).
  - a. This id **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CONF:4395-22788).
8. **SHALL** contain exactly one [1..1] code (CONF:4395-19908).
  - a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:4395-19909).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4395-28396).
9. **SHALL** contain exactly one [1..1] statusCode (CONF:4395-19910).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:4395-19911).
10. **SHALL** contain exactly one [1..1] effectiveTime (CONF:4395-30680).

If the infection indicator was present, record the event date in effectiveTime/low/@value. If the infection indicator was not present, set effectiveTime/low/@nullFlavor='NA'.

- a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:4395-30681).
  - i. This low **MAY** contain zero or one [0..1] **@nullFlavor="NA"** (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:4395-30683).
  - ii. This low **MAY** contain zero or one [0..1] **@value** (CONF:4395-30684).
- 11. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:4395-19912).
  - a. This value **SHALL** contain exactly one [1..1] **@code="2305-1"** Pus, redness, or increased swelling (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277 **STATIC**) (CONF:4395-19913).
- 12. **MAY** contain zero or more [0..\*] **participant** (CONF:4395-20937).

In an Evidence of Infection (Dialysis) Report, when this infection indicator is present, the following participant element is required by NHSN protocol to record the vascular access site at which the infection indicator was observed.

- 13. If the value of @negationInd is 'false', this observation **SHALL** contain one or more [1..\*] participant elements representing the access site which displayed this infection indicator (CONF:4395-19914).
  - a. **SHALL** contain exactly one [1..1] **@typeCode="DEV"** Device (CONF:4395-19915).
  - b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:4395-19916).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode="MANU"** (CONF:4395-19921).
    - ii. This participantRole **SHALL** contain exactly one [1..1] **playingDevice** (CONF:4395-19917).
      - 1. This playingDevice **SHALL** contain exactly one [1..1] **code** (CONF:4395-19918).
        - a. To record a vascular access site as a code, the value of @code **SHALL** be selected from ValueSet 2.16.840.1.114222.4.11.6042 NHSNVascularAccessSiteCode **DYNAMIC** (CONF:4395-19919).
        - b. To represent a site of vascular access that is not listed in the NHSNVascularAccessSiteCode value set, set the value of @nullFlavor to OTH (other) (CONF:4395-19920).

**Table 429: NHSNVascularAccessSiteCode**

<p>Value Set: NHSNVascularAccessSiteCode urn:oid:2.16.840.1.114222.4.11.6042 (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the vascular access site.),(Data Element Scope: A code describing the vascular access site.),(Inclusion Criteria: ),(Exclusion Criteria: )</p> <p>This value set was imported on 10/14/2020 with a version of Latest.</p> <p>Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6042/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6042/expansion</a></p>			
Code	Code System	Code System OID	Print Name
2321-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Site of non-tunneled central line, dialysis
2322-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Site of tunneled central line, dialysis
2323-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Vascular site fistula
2324-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Vascular site graft



**Figure 160: Pus, Redness, or Increased Swelling Observation (V2) Example**

```
<!-- If the infection indicator was present, set the value of @negationInd to false
and record the event date in effectiveTime/low/@value.
If the infection indicator was not present, set the value of
@negationInd to true and set effectiveTime/low/@nullFlavor='NA'. --><observation
classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Pus, Redness, or Increased Swelling Observation (V2) templateId-->
  <templateId root="2.16.840.1.113883.10.20.5.6.157" extension="2019-04-01" />
  <id nullFlavor="NA"/>
  <code code="ASSERTION"
    codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="completed"/>
  <effectiveTime xsi:type="IVL_TS">
    <low value="20180405" />
  </effectiveTime>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="2305-1"
    displayName="Pus, redness, or increased swelling"/>
  <!-- If this infection indicator was observed, at which
  vascular access site(s)? -->
  <participant typeCode="DEV">
    <participantRole classCode="MANU">
      <playingDevice>
        <code code="2321-8"
          codeSystem="2.16.840.1.113883.6.277"
          displayName="Vascular site fistula"/>
      </playingDevice>
    </participantRole>
  </participant>
</observation>
```

### 3.104 Reason for Procedure Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.158 (closed)]

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**Table 430: Reason for Procedure Observation Contexts**

Contained By:	Contains:
<a href="#">Procedure Details Clinical Statement in a CLIP Report</a> (required)	<a href="#">Guidewire Used Clinical Statement</a> (optional)

This observation records the reason a procedure was performed. It is used in the CLIP Report to record the reason a central-line insertion procedure was performed.

**Table 431: Reason for Procedure Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.158)					
@classCode	1..1	SHALL		<a href="#">86-21589</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-21590</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-21591</a>	false
templateId	1..1	SHALL		<a href="#">86-28273</a>	
@root	1..1	SHALL		<a href="#">86-28274</a>	2.16.840.1.113883.10.20.22.4.19
templateId	1..1	SHALL		<a href="#">86-21593</a>	
@root	1..1	SHALL		<a href="#">86-21603</a>	2.16.840.1.113883.10.20.5.6.158
id	1..1	SHALL		<a href="#">86-21594</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22789</a>	NA
code	1..1	SHALL		<a href="#">86-21595</a>	
@code	1..1	SHALL		<a href="#">86-21596</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28386</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-21597</a>	
@code	1..1	SHALL		<a href="#">86-21598</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL		<a href="#">86-21599</a>	
entryRelationship	0..1	MAY		<a href="#">86-23286</a>	
@typeCode	1..1	SHALL		<a href="#">86-23287</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
@inversionInd	1..1	SHALL		<a href="#">86-23288</a>	true
procedure	1..1	SHALL		<a href="#">86-23289</a>	<a href="#">Guidewire Used Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.129)</a>

1. Conforms to Indication template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.19).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21589).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21590).
4. **SHALL** contain exactly one [1..1] **@negationInd**="false" (CONF:86-21591).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28273) such that it

- a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.22.4.19"` (CONF:86-28274).
6. **SHALL** contain exactly one [1..1] `templateId` (CONF:86-21593) such that it
  - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.5.6.158"` (CONF:86-21603).
7. **SHALL** contain exactly one [1..1] `id` (CONF:86-21594).
  - a. This `id` **SHALL** contain exactly one [1..1] `@nullFlavor="NA"` (CONF:86-22789).
8. **SHALL** contain exactly one [1..1] `code` (CONF:86-21595).
  - a. This `code` **SHALL** contain exactly one [1..1] `@code="ASSERTION"` Assertion (CONF:86-21596).
  - b. This `code` **SHALL** contain exactly one [1..1] `@codeSystem="2.16.840.1.113883.5.4"` (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28386).
9. **SHALL** contain exactly one [1..1] `statusCode` (CONF:86-21597).
  - a. This `statusCode` **SHALL** contain exactly one [1..1] `@code="completed"` Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-21598).
10. **SHALL** contain exactly one [1..1] `value` (CONF:86-21599).
  - a. In a CLIP Report, to record the reason as a code, the value of `@xsi:type` **SHALL** be CD and the value of `@code` **SHALL** be selected from ValueSet 2.16.840.1.114222.4.11.3182 NHSNReasonForInsertionCode **DYNAMIC**. Or, to record the reason as text, the value of `@xsi:type` **SHALL** be ST and a text value **SHALL** be present (CONF:86-21600).
11. **MAY** contain zero or one [0..1] `entryRelationship` (CONF:86-23286).
  - a. The `entryRelationship`, if present, **SHALL** contain exactly one [1..1] `@typeCode="RSON"` (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:86-23287).
  - b. The `entryRelationship`, if present, **SHALL** contain exactly one [1..1] `@inversionInd="true"` (CONF:86-23288).
  - c. The `entryRelationship`, if present, **SHALL** contain exactly one [1..1] [Guidewire Used Clinical Statement](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.129) (CONF:86-23289).
  - d. In a CLIP Report, if the coded reason is [To replace] An existing central line where infection was suspected (5107-8), an `entryRelationship` element **SHALL** be present containing Guidewire Used Clinical Statement (CONF:86-23290).

**Table 432: NHSNReasonForInsertionCode**

<p>Value Set: NHSNReasonForInsertionCode urn:oid:2.16.840.1.114222.4.11.3182 (Clinical Focus: NHSN surveillance reporting: reasons to insert a catheter for Central Line Insertion Practices (CLIP) adherence monitoring),(Data Element Scope: A coded observation value describing the reason for insertion of the central line.),(Inclusion Criteria: ),(Exclusion Criteria: )</p> <p>This value set was imported on 10/14/2020 with a version of Latest.</p> <p>Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3182/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3182/expansion</a></p>			
Code	Code System	Code System OID	Print Name
5105-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	To address a new indication for a central line
5106-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	To replace an existing, malfunctioning central line
5107-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	To replace an existing central line where infection was suspected

**Figure 161: Reason for Procedure Observation Example**

```

<observation moodCode="EVN" classCode="OBS" negationInd="false">
  <!-- C-CDA Indication templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
  <!-- HAI Reason for Procedure Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.158"/>
  <id nullFlavor="NA"/>
  <code code="ASSERTION"
        codeSystem="2.16.840.1.113883.5.4" />
  <statusCode code="completed"/>
  <value xsi:type="CD" codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        code="5106-0"
        displayName="[To replace] An existing, malfunctioning central line"/>
</observation>
...
<!-- Or, if the reason is [To replace] An existing central line where infection
was suspected:
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Indication templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.19"/>
  <!-- HAI Reason for Procedure Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.158"/>
  <code codeSystem="2.16.840.1.113883.5.4"
        code="ASSERTION" />
  <statusCode code="completed"/>
  <value xsi:type="CD" code="5107-8"
        codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        displayName="[To replace] An existing central line where infection
was suspected."/>
  <entryRelationship typeCode="RSON" inversionInd="true">
    <procedure classCode="PROC" moodCode="EVN" negationInd="false">
      <!-- C-CDA Procedure Activity Procedure templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.14" />
      <!-- HAI Guidewire Used Clinical Statement templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.129" />
      ...
    </procedure>
  </entryRelationship>
</observation>
-->

```

### 3.105Recorder Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.159 (closed)]

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**Table 433: Recorder Observation Contexts**

Contained By:	Contains:
<a href="#">Procedure Details Clinical Statement in a CLIP Report</a> (required)	

This observation records whether the person who recorded the sequence of steps in a practice was also the performer of those steps. It is used in the Central-Line Insertion Practice Report.

If the recorder was the performer, set the value of @negationInd to false. If the recorder was not the performer (i.e., was an observer), set the value of @negationInd to true.

**Table 434: Recorder Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.159)					
@classCode	1..1	SHALL		<a href="#">86-21342</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-21343</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-21344</a>	
templateId	1..1	SHALL		<a href="#">86-21987</a>	
@root	1..1	SHALL		<a href="#">86-21988</a>	2.16.840.1.113883.10.20.5.6.159
id	1..1	SHALL		<a href="#">86-21989</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22790</a>	NA
code	1..1	SHALL		<a href="#">86-21345</a>	
@code	1..1	SHALL		<a href="#">86-21346</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28387</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-21347</a>	
@code	1..1	SHALL		<a href="#">86-21348</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-21349</a>	
@code	1..1	SHALL		<a href="#">86-21350</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 3104-7

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21342).

2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21343).
3. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:86-21344).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-21987) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.159" (CONF:86-21988).
5. **SHALL** contain exactly one [1..1] **id** (CONF:86-21989).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22790).
6. **SHALL** contain exactly one [1..1] **code** (CONF:86-21345).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:86-21346).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28387).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-21347).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-21348).
8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:86-21349).
  - a. This value **SHALL** contain exactly one [1..1] **@code**="3104-7" Recorder was performer (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277 **STATIC**) (CONF:86-21350).

**Figure 162: Recorder Observation Example**

```
<observation moodCode="EVN" classCode="OBS" negationInd="false">
  <!-- Recorder Observation template -->
  <templateId root="2.16.840.1.113883.10.20.5.6.159"/>
  <id nullFlavor="NA"/>
  <code code="ASSERTION"
    codeSystem="2.16.840.1.113883.5.4" />
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="3104-7"
    displayName="Recorder was performer"/>
</observation>
```

### 3.106Report No Events

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01  
(closed)]

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**Table 435: Report No Events Contexts**

Contained By:	Contains:
<a href="#">Report No Events Section</a> (required)	

This template represents the statement that there are no events to report for a particular type of event.

**Table 436: Report No Events Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01)					
@classCode	1..1	SHALL		<a href="#">3357-30599</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">3357-30600</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">3357-28468</a>	
@root	1..1	SHALL		<a href="#">3357-28470</a>	2.16.840.1.113883.10.20.5.6.249
@extension	1..1	SHALL		<a href="#">3357-28471</a>	2018-04-01
code	1..1	SHALL		<a href="#">3357-28469</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3357-30599).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3357-30600).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3357-28468) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.249" (CONF:3357-28470).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2018-04-01" (CONF:3357-28471).
4. **SHALL** contain exactly one [1..1] **code** (CONF:3357-28469).
  - a. If this is a Neonatal Intensive Care Unit (NICU) Summary Report then the code **SHALL** be selected from value set [NHSNReportNoEventsNICU](#) [urn:oid:2.16.840.1.113883.10.20.5.9.19](#)DYNAMIC (CONF:3357-30905).
  - b. If this is an Intensive Care Unit (ICU) Summary Report then the code **SHALL** be selected from value set [NHSNReportNoEventsICU](#) [urn:oid:2.16.840.1.113883.10.20.5.9.18](#)DYNAMIC (CONF:3357-30906).



- c. If this is a Vascular Access Type Report (VAT) Summary Report then the code **SHALL** be selected from value set [NHSNReportNoEventsDialysis](#)  
[urn:oid:2.16.840.1.113883.10.20.5.9.22](#)**DYNAMIC** (CONF:3357-30907).
- d. If this is a Prevention Process and Outcome Measures (POM) Summary Report then the code **SHALL** be selected from value set [NHSNReportNoEventsMDRO](#)  
[urn:oid:2.16.840.1.113883.10.20.5.9.21](#)**DYNAMIC** (CONF:3357-30908).
- e. If this is a Specialty Care Area (SCA) Summary Report then the code **SHALL** be selected from value set [NHSNReportNoEventsSCA](#)  
[urn:oid:2.16.840.1.113883.10.20.5.9.20](#)**DYNAMIC** (CONF:3357-30909).
- f. If this is an Outpatient Procedure Component Denominator for Same Day Outcome Measures Report then the code **SHALL** be selected from value set [NHSNReportNoEventsOPCSameDayOutcomeMeasures](#)  
[urn:oid:2.16.840.1.113883.10.20.5.9.33](#)**DYNAMIC** (CONF:3357-30913).
- g. If this is an Antimicrobial Resistance Option (ARO) Summary Report then the code **SHALL** be selected from value set [NHSNReportNoEventsAR](#)  
[urn:oid:2.16.840.1.113883.10.20.5.9.35](#)**DYNAMIC** (CONF:3357-30914).
- h. If this is a LTCF Monthly Summary Data for MDRO, CDI, UTI, and Prevention Process Measures report then the code **SHALL** be selected from ValueSet [NHSNReportNoEventsMDROLTCF](#)  
[\(urn:oid:2.16.840.1.113883.10.20.5.1.9.1\)](#)**DYNAMIC** (CONF:3357-30915).

**Table 437: NHSNReportNoEventsNICU**

Value Set: NHSNReportNoEventsNICU urn:oid:2.16.840.1.113883.10.20.5.9.19

(Clinical Focus: NHSN surveillance reporting: indicators for reporting no events with denominators for neonatal intensive care unit (NICU)),(Data Element Scope: Code identifying that no event of interest occurred.),(Inclusion Criteria: ),(Exclusion Criteria: )

This value set was imported on 9/16/2020 with a version of Latest.

Value Set Source:

<https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.19/expansion>

Code	Code System	Code System OID	Print Name
1313-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: NICU: PedVAE: birth weight under 750 grams
1314-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: NICU: PedVAE: birth weight 751-1000 grams
1316-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: NICU: PedVAE: birth weight 1001-1500 grams
1317-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: NICU: PedVAE: birth weight 1501-2500 grams
1318-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: NICU: PedVAE: birth weight over 2500 grams
1319-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: NICU: PedVAE: Extremely preterm (<28 weeks)
1330-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: NICU: PedVAE: Very preterm (28 to <32 weeks)
1331-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: NICU: PedVAE: Moderate to late preterm (32 to <37 weeks)
1332-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: NICU: PedVAE: Term (>=37 weeks)
3014-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: NICU: CLABSI: under 750 grams
...			

**Table 438: NHSNReportNoEventsICU**

Value Set: NHSNReportNoEventsICU urn:oid:2.16.840.1.113883.10.20.5.9.18 (Clinical Focus: NHSN surveillance reporting: indicators for reporting no events with denominators for intensive care unit),(Data Element Scope: Code identifying that no event of interest occurred.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/16/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.18/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.18/expansion</a>			
Code	Code System	Code System OID	Print Name
1338-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: ICU: PedVAE
3010-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: ICU: CLABSI
3011-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: ICU: CAUTI
3012-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: ICU: VAE
3013-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: ICU: PedVAP

**Table 439: NHSNReportNoEventsDialysis**

Value Set: NHSNReportNoEventsDialysis urn:oid:2.16.840.1.113883.10.20.5.9.22 (Clinical Focus: NHSN surveillance reporting: indicators for reporting no events with denominators for dialysis),(Data Element Scope: Code identifying that no event of interest occurred.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/16/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.22/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.22/expansion</a>			
Code	Code System	Code System OID	Print Name
3052-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: Dialysis: intravenous antimicrobial start
3053-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: Dialysis: positive blood culture
3054-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: Dialysis: pus, redness, or increased swelling at vascular access site

**Table 440: NHSNReportNoEventsMDRO**

Value Set: NHSNReportNoEventsMDRO urn:oid:2.16.840.1.113883.10.20.5.9.21 (Clinical Focus: NHSN surveillance reporting: indicators for reporting no events with denominators for LabID Event),(Data Element Scope: Code identifying that no event of interest occurred.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/16/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.21/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.21/expansion</a>			
Code	Code System	Code System OID	Print Name
1306-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: Infection Surveillance: MSSA
1307-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: LabID Event (All specimens): MSSA
1308-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: LabID Event (Blood specimens only): MSSA
3029-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: Infection Surveillance: MRSA
3030-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: LabID Event (All specimens): MRSA
3031-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: LabID Event (Blood specimens only): MRSA
3032-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: Infection Surveillance: VRE
3033-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: LabID Event (All specimens): VRE
3034-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: LabID Event (Blood specimens only): VRE
3035-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: Infection Surveillance: CephR Klebsiella
...			

**Table 441: NHSNReportNoEventsSCA**

Value Set: NHSNReportNoEventsSCA urn:oid:2.16.840.1.113883.10.20.5.9.20 (Clinical Focus: NHSN surveillance reporting: indicators for reporting no events with denominators for specialty care area / oncology),(Data Element Scope: Code identifying that no event of interest occurred.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/16/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.20/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.20/expansion</a>			
Code	Code System	Code System OID	Print Name
1339-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: SCA: PedVAE
3024-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: SCA: TCLAB
3025-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: SCA: PCLAB
3026-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: SCA: CAUTI
3027-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: SCA: VAE
3028-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: SCA: PedVAP

**Table 442: NHSNReportNoEventsOPCSameDayOutcomeMeasures**

Value Set: NHSNReportNoEventsOPCSameDayOutcomeMeasures urn:oid:2.16.840.1.113883.10.20.5.9.33 (Clinical Focus: NHSN surveillance reporting: indicators for reporting no events with denominators for Outpatient Procedure Component Same Day Outcome Measures),(Data Element Scope: Code identifying that no event of interest occurred.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/16/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.33/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.33/expansion</a>			
Code	Code System	Code System OID	Print Name
1340-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	No same day outcome measures (events) reported this month

**Table 443: NHSNReportNoEventsAR**

<p>Value Set: NHSNReportNoEventsAR urn:oid:2.16.840.1.113883.10.20.5.9.35 (Clinical Focus: NHSN surveillance reporting: indicator for reporting no events with denominators for antimicrobial resistance),(Data Element Scope: Code identifying that no event of interest occurred.),(Inclusion Criteria: ),(Exclusion Criteria: )</p> <p>This value set was imported on 9/16/2020 with a version of Latest.</p> <p>Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.35/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.35/expansion</a></p>			
Code	Code System	Code System OID	Print Name
1341-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.27 7	Report No Events: Antimicrobial Resistance (AR)

**Table 444: NHSNReportNoEventsMDROLTCF**

Value Set: NHSNReportNoEventsMDROLTCF urn:oid:2.16.840.1.113883.10.20.5.1.9.1 (Clinical Focus: NHSN surveillance reporting: indicators for reporting no events with denominators for LTCF),(Data Element Scope: Code identifying that no event of interest occurred.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 2/21/2023 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.1.9.1/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.1.9.1/expansion</a>			
Code	Code System	Code System OID	Print Name
3051-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: LabID Event (All specimens): C. difficile
3036-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: LabID Event (All specimens): CephR Klebsiella
3039-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: LabID Event (All specimens): CRE-E. coli
3042-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: LabID Event (All specimens): CRE-Enterobacter
3045-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: LabID Event (All specimens): CRE-Klebsiella
3048-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: LabID Event (All specimens): MDR-Acinetobacter
3030-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: LabID Event (All specimens): MRSA
1307-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: LabID Event (All specimens): MSSA
3033-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: LabID Event (All specimens): VRE
1342-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report No Events: UTI Event

**Figure 163: Report No Events Example**

```
<act classCode="ACT" moodCode="EVN">
  <!-- [HAI R3D3] Report No Events -->
  <templateId root="2.16.840.1.113883.10.20.5.6.249" extension="2018-04-01" />
  <code code="3029-6"
    displayName="Report no infection surveillance events - Methicillin-resistant
Staphylococcus aureus"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN" />
</act>
```

### 3.107 Revision Associated with Prior Infection Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.204 (closed)]

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**Table 445: Revision Associated with Prior Infection Observation Contexts**

Contained By:	Contains:
<a href="#">Procedure Details Clinical Statement in a Procedure Report (V2)</a> (optional)	

This template records whether or not a surgical procedure was performed as a result of a previous infection. In the NHSN context, this observation only applies to arthroplasty procedures. It is based on the C-CDA Problem Observation template.

When the revision was associated with prior infection at the index joint, set the value of @negationInd to false. When the revision was not associated with prior infection at the index joint, set the value of @negationInd to true.



**Table 446: Revision Associated with Prior Infection Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.204)					
@classCode	1..1	SHALL		<a href="#">1101-30225</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1101-30226</a>	EVN
@negationInd	1..1	SHALL		<a href="#">1101-30227</a>	
templateId	1..1	SHALL		<a href="#">1101-30305</a>	
@root	1..1	SHALL		<a href="#">1101-30306</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">1101-30229</a>	
@root	1..1	SHALL		<a href="#">1101-30230</a>	2.16.840.1.113883.10.20.5.6.204
id	1..1	SHALL		<a href="#">1101-30231</a>	
@nullFlavor	1..1	SHALL		<a href="#">1101-30232</a>	NA
code	1..1	SHALL		<a href="#">1101-30233</a>	
@code	1..1	SHALL		<a href="#">1101-30234</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1101-30235</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1101-30236</a>	
@code	1..1	SHALL		<a href="#">1101-30237</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">1101-30238</a>	
@code	1..1	SHALL		<a href="#">1101-30239</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 1239-3
@codeSystem	1..1	SHALL		<a href="#">1101-30240</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1101-30225).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CONF:1101-30226).

4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:1101-30227).
  - a. If the revision was associated with prior infection at the index joint, the value of **@negationInd** **SHALL** be false. If the revision was not associated with prior infection at the index joint, the value of **@negationInd** **SHALL** be true (CONF:1101-30228).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1101-30305) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.4"** (CONF:1101-30306).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:1101-30229) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.5.6.204"** (CONF:1101-30230).
7. **SHALL** contain exactly one [1..1] **id** (CONF:1101-30231).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor="NA"** (CONF:1101-30232).
8. **SHALL** contain exactly one [1..1] **code** (CONF:1101-30233).
  - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** (CONF:1101-30234).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1101-30235).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1101-30236).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1101-30237).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:1101-30238).
  - a. This value **SHALL** contain exactly one [1..1] **@code="1239-3"** Revision associated with prior infection at index joint (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1101-30239).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.277"** (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1101-30240).

**Figure 164: Revision Associated with Prior Infection Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!--
    If the revision was associated with prior infection at the index joint,
    the value of @negationInd SHALL be false.
    If the revision was not associated with prior infection at
    the index joint, the value of @negationInd SHALL be true.
  -->
  <!-- C-CDA Problem Observation -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4" />
  <!-- Revision Associated with Prior Infection Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.204" />
  <id nullFlavor="NA" />
  <code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION" />
  <statusCode code="completed" />
  <value xsi:type="CD" code="1239-3"
    displayName="Revision associated with prior infection at index joint"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN" />
</observation>
```

### 3.108 Same Day Outcome Measure Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.208:2019-04-01  
(closed)]

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**Table 447: Same Day Outcome Measure Observation (V3) Contexts**

Contained By:	Contains:
<a href="#">Same Day Outcome Measures Organizer (V3)</a> (required)	

This template reports a facility-level outcome measure that occurs on the same day as the outpatient procedure.

The measures include:

- Patient burn
- Patient fall
- Wrong site
- Wrong side
- Wrong patient
- Wrong procedure
- Wrong implant
- Hospital transfer/admission

If the outcome occurred, set the value of @negationInd to false. If the outcome did not occur, set the value of @negationInd to true.

**Table 448: Same Day Outcome Measure Observation (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.208:2019-04-01)					
@classCode	1..1	SHALL		<a href="#">4395-21655</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4395-21656</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">4395-21779</a>	
templateId	1..1	SHALL		<a href="#">4395-21866</a>	
@root	1..1	SHALL		<a href="#">4395-21867</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">4395-21657</a>	
@root	1..1	SHALL		<a href="#">4395-21658</a>	2.16.840.1.113883.10.20.5.6.208
@extension	1..1	SHALL		<a href="#">4395-30559</a>	2019-04-01
id	1..1	SHALL		<a href="#">4395-21663</a>	
@nullFlavor	1..1	SHALL		<a href="#">4395-21664</a>	NA
code	1..1	SHALL		<a href="#">4395-21659</a>	
@code	1..1	SHALL		<a href="#">4395-21660</a>	1655-0
@codeSystem	1..1	SHALL		<a href="#">4395-21661</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
statusCode	1..1	SHALL		<a href="#">4395-21665</a>	
@code	1..1	SHALL		<a href="#">4395-21666</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">4395-21662</a>	urn:oid:2.16.840.1.114222.4.11.7214 (NHSNSameDayOutcomeMeasure)

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] @**classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4395-21655).

3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4395-21656).

If the outcome occurred, set the value of **@negationInd** to false. If the outcome did not occur, set the value of **@negationInd** to true.

4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:4395-21779).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-21866) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.4" (CONF:4395-21867).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-21657) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.208" (CONF:4395-21658).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30559).
7. **SHALL** contain exactly one [1..1] **id** (CONF:4395-21663).
  - a. This **id** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:4395-21664).
8. **SHALL** contain exactly one [1..1] **code** (CONF:4395-21659).
  - a. This **code** **SHALL** contain exactly one [1..1] **@code**="1655-0" Same day outcome measure (CONF:4395-21660).
  - b. This **code** **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277 **STATIC**) (CONF:4395-21661).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4395-21665).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:4395-21666).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", where the **code** **SHALL** be selected from ValueSet [NHSNSameDayOutcomeMeasure](#) urn:oid:2.16.840.1.114222.4.11.7214 **DYNAMIC** (CONF:4395-21662).

**Table 449: NHSNSameDayOutcomeMeasure**

Value Set: NHSNSameDayOutcomeMeasure urn:oid:2.16.840.1.114222.4.11.7214 (Clinical Focus: NHSN surveillance reporting;),(Data Element Scope: A coded observation value describing facility-level outcome measures that occur on the same day as the outpatient procedure.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7214/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7214/expansion</a>			
Code	Code System	Code System OID	Print Name
125666000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Burn (disorder)
1645-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Hospital transfer/admission
1646-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Wrong site
1647-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Wrong side
1648-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Wrong patient
1649-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Wrong implant
217082002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Accidental fall (event)
370898007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Wrong surgical procedure performed on a patient (event)

**Figure 165: Same Day Outcome Measure Observation (V3) Example**

```
<!-- If the outcome occurred, set the value of @negationInd to false. If the outcome did
not occur, set the value of @negationInd to true. -->
<!-- Outcome did not occur -->
<observation classCode="OBS" moodCode="EVN" negationInd="true">
  <!-- C-CDA R1.1 Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4" />
  <!-- Same Day Outcome Measure Observation (V3) templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.208" extension="2019-04-01" />
  <id nullFlavor="NA" />
  <code code="1655-0"
    displayName="Same Day Outcome Measure"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"/>
  <statusCode code="completed" />
  <effectiveTime>
    <low value="20130805" />
  </effectiveTime>
  <value xsi:type="CD"
    code="370898007"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"
    displayName="Wrong surgical procedure performed on a patient" />
</observation>
```

### 3.109 Same Day Outcome Measures Organizer (V3)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.212:2019-04-01  
(closed)]

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**Table 450: Same Day Outcome Measures Organizer (V3) Contexts**

Contained By:	Contains:
<a href="#">Same Day Outcome Measures Event Details Section</a> (optional)	<a href="#">Same Day Outcome Measure Observation (V3)</a> (required)

This organizer groups together the same-day outcome measures.

**Table 451: Same Day Outcome Measures Organizer (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.212:2019-04-01)					
@classCode	1..1	SHALL		<a href="#">4395-21784</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">4395-21785</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">4395-21781</a>	
@root	1..1	SHALL		<a href="#">4395-21786</a>	2.16.840.1.113883.10.20.5.6.212
@extension	1..1	SHALL		<a href="#">4395-30560</a>	2019-04-01
statusCode	1..1	SHALL		<a href="#">4395-21782</a>	
@code	1..1	SHALL		<a href="#">4395-21787</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
component	1..*	SHALL		<a href="#">4395-21780</a>	
observation	1..1	SHALL		<a href="#">4395-21783</a>	<a href="#">Same Day Outcome Measure Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.208:2019-04-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="CLUSTER" Cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4395-21784).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4395-21785).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-21781) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.212" (CONF:4395-21786).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30560).
4. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4395-21782).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4395-21787).
5. **SHALL** contain at least one [1..\*] **component** (CONF:4395-21780).
  - a. Such components **SHALL** contain exactly one [1..1] [Same Day Outcome Measure Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.208:2019-04-01) (CONF:4395-21783).



**Figure 166: Same Day Outcome Measures Organizer (V3) Example**

```
<organizer classCode="CLUSTER" moodCode="EVN">
  <!-- Same Day Outcome Measures Organizer templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.212" extension="2019-04-01" />
  <statusCode code="completed" />
  <component>
    <!-- Same Day Outcome Measure Observation (V3) -->
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- Same Day Outcome Measure templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.208" extension="2019-04-01" />
      ...
    </observation>
  </component>
  <component>
    <!-- Same Day Outcome Measure Observation (V3) -->
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- Same Day Outcome Measure templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.208" extension="2019-04-01" />
      ...
    </observation>
  </component>
  ...
</organizer>
```

### 3.110 Secondary Bloodstream Infection Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.160 (closed)]

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**Table 452: Secondary Bloodstream Infection Observation Contexts**

Contained By:	Contains:
<a href="#">Infection-Type Observation</a> (optional)	

This observation records whether a secondary bloodstream infection was present.

If a secondary bloodstream infection was present, set the value of observation/@negationInd to false. If a secondary bloodstream infection was not present, set the value of observation/@negationInd to true.

**Table 453: Secondary Bloodstream Infection Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.160)					
@classCode	1..1	SHALL		<a href="#">86-19840</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-19841</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-19842</a>	
templateId	1..1	SHALL		<a href="#">86-28275</a>	
@root	1..1	SHALL		<a href="#">86-28276</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-19851</a>	
@root	1..1	SHALL		<a href="#">86-19852</a>	2.16.840.1.113883.10.20.5.6.160
id	1..1	SHALL		<a href="#">86-23363</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-23364</a>	NA
code	1..1	SHALL		<a href="#">86-19843</a>	
@code	1..1	SHALL		<a href="#">86-19844</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28388</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-19845</a>	
@code	1..1	SHALL		<a href="#">86-19846</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-19847</a>	
@code	1..1	SHALL		<a href="#">86-19848</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 3111-2

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-19840).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-19841).
4. **SHALL** contain exactly one [1..1] @negationInd (CONF:86-19842).
5. **SHALL** contain exactly one [1..1] templateId (CONF:86-28275) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28276).
6. **SHALL** contain exactly one [1..1] templateId (CONF:86-19851) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.160" (CONF:86-19852).
7. **SHALL** contain exactly one [1..1] id (CONF:86-23363).
  - a. This id **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CONF:86-23364).

8. **SHALL** contain exactly one [1..1] **code** (CONF:86-19843).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:86-19844).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28388).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-19845).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-19846).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:86-19847).
  - a. This value **SHALL** contain exactly one [1..1] **@code**="3111-2" Secondary bloodstream infection (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277 **STATIC**) (CONF:86-19848).

**Figure 167: Secondary Bloodstream Infection Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Secondary Bloodstream Infection Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.160"/>
  <id nullFlavor="NA"/>
  <code code="ASSERTION"
        codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="completed"/>
  <value
    xsi:type="CD"
    code="3111-2"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    displayName="Secondary bloodstream infection"/>
</observation>
```

### 3.111Sex

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.305:2025-05-01 (open)]

Draft as part of NHSN Healthcare Associated Infection Reports Release 4, STU 4 - US Realm

**Table 454: Sex Contexts**

Contained By:	Contains:
<a href="#">NHSN Social History Section (V4)</a> (required)	

This observation represents the sex of the patient.

**Table 455: Sex Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.305:2025-05-01)					
@classCode	1..1	SHALL		<a href="#">5566-31151</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">5566-31152</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">5566-31142</a>	
@root	1..1	SHALL		<a href="#">5566-31146</a>	2.16.840.1.113883.10.20.5.6.305
@extension	1..1	SHALL		<a href="#">5566-31147</a>	2025-05-01
code	1..1	SHALL		<a href="#">5566-31143</a>	
@code	1..1	SHALL		<a href="#">5566-31148</a>	46098-0
@codeSystem	1..1	SHALL		<a href="#">5566-31149</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">5566-31141</a>	
@code	1..1	SHALL		<a href="#">5566-31145</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">5566-31144</a>	urn:oid:2.16.840.1.113762.1.4.1021.121 (Federal Administrative Sex)
@nullFlavor	0..0	SHALL NOT		<a href="#">5566-31153</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:5566-31151).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:5566-31152).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-31142) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.305" (CONF:5566-31146).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-31147).
4. **SHALL** contain exactly one [1..1] **code** (CONF:5566-31143).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="46098-0" Sex (CONF:5566-31148).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 **STATIC**) (CONF:5566-31149).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:5566-31141).

- a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:5566-31145).
6. **SHALL** contain exactly one [1..1] value with @xsi:type="CD", where the code **SHALL** be selected from ValueSet Federal Administrative Sex urn:oid:2.16.840.1.113762.1.4.1021.121 **DYNAMIC** (CONF:5566-31144).
  - a. This value **SHALL NOT** contain [0..0] @nullFlavor (CONF:5566-31153).

**Table 456: Federal Administrative Sex**

Value Set: Federal Administrative Sex urn:oid:2.16.840.1.113762.1.4.1021.121 (Clinical Focus: SNOMED CT representations of sex values aligned with US federal administrative requirements across all systems, including quality measure use),(Data Element Scope: Patient characteristics),(Inclusion Criteria: Limited set of SNOMED CT representations of sex values.),(Exclusion Criteria: )  This value set was imported on 3/27/2025 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.121/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.121/expansion</a>			
Code	Code System	Code System OID	Print Name
248152002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Female (finding)
248153007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Male (finding)

**Figure 168: Sex Example**

<pre> &lt;observation classCode="OBS" moodCode="EVN"&gt;   &lt;templateId root="2.16.840.1.113883.10.20.5.6.305" extension="2025-05-01"/&gt;   &lt;code code="46098-0"         codeSystem="2.16.840.1.113883.6.1"         displayName="Sex"/&gt;   &lt;statusCode code="completed"/&gt;   &lt;value xsi:type="CD" codeSystem="2.16.840.1.113883.6.96"                 codeSystemName="SNOMED CT"                 code="248152002"                 displayName="Female (finding)"&gt;    &lt;/value&gt; &lt;/observation&gt; </pre>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

3.112Skin Preparation Clinical Statement (V2)

[substanceAdministration: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.5.6.162:2014-12-01 (closed)]  
  
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Release 2, DSTU 2.1 - US Realm

Table 457: Skin Preparation Clinical Statement (V2) Contexts

Contained By:	Contains:
<a href="#">Skin-Preparation Solutions Applied Organizer (V2)</a> (required)	<a href="#">Contraindicated Observation (V2)</a> (optional)

This observation records a skin-preparation solution. It is used in the Skin-Preparation Solutions Applied clinical statement in the Central-Line Insertion Practice Report.  
If the preparation step included application of the solution specified, set the value of @negationInd to false. If the preparation step did not include application of the solution specified, set the value of @negationInd to true.

**Table 458: Skin Preparation Clinical Statement (V2) Constraints Overview**

<b>XPath</b>	<b>Card.</b>	<b>Verb</b>	<b>Data Type</b>	<b>CONF#</b>	<b>Value</b>
substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.162:2014-12-01)					
@classCode	1..1	SHALL		<a href="#">1129-21359</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM
@moodCode	1..1	SHALL		<a href="#">1129-21360</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">1129-21361</a>	
templateId	1..1	SHALL		<a href="#">1129-30537</a>	
@root	1..1	SHALL		<a href="#">1129-30538</a>	2.16.840.1.113883.10.20.22.4.16
templateId	1..1	SHALL		<a href="#">1129-22118</a>	
@root	1..1	SHALL		<a href="#">1129-22124</a>	2.16.840.1.113883.10.20.5.6.162
@extension	1..1	SHALL		<a href="#">1129-30539</a>	2014-12-01
id	1..1	SHALL		<a href="#">1129-22119</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-22785</a>	NA
statusCode	1..1	SHALL		<a href="#">1129-22120</a>	
@code	1..1	SHALL		<a href="#">1129-28105</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL	IVL_TS	<a href="#">1129-22121</a>	
low	1..1	SHALL		<a href="#">1129-22122</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-22786</a>	NA
high	1..1	SHALL		<a href="#">1129-22123</a>	
@nullFlavor	1..1	SHALL		<a href="#">1129-22787</a>	NA
consumable	1..1	SHALL		<a href="#">1129-21362</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1129-21363</a>	
@classCode	1..1	SHALL		<a href="#">1129-21364</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
templateId	1..1	SHALL		<a href="#">1129-30556</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@root	1..1	SHALL		<a href="#">1129-30557</a>	2.16.840.1.113883.10.20.22.4.23
manufacturedMaterial	1..1	SHALL		<a href="#">1129-21365</a>	
@classCode	1..1	SHALL		<a href="#">1129-21366</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT
code	1..1	SHALL		<a href="#">1129-21367</a>	
entryRelationship	0..1	MAY		<a href="#">1129-23291</a>	
@typeCode	1..1	SHALL		<a href="#">1129-23292</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1129-30431</a>	<a href="#">Contraindicated Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.118:2014-12-01)</a>

1. Conforms to Medication Activity template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.16).
2. **SHALL** contain exactly one [1..1] @classCode="SBADM" Substance administration (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1129-21359).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1129-21360).
4. **SHALL** contain exactly one [1..1] @negationInd (CONF:1129-21361).
5. **SHALL** contain exactly one [1..1] templateId (CONF:1129-30537) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.16" (CONF:1129-30538).
6. **SHALL** contain exactly one [1..1] templateId (CONF:1129-22118) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.162" (CONF:1129-22124).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30539).
7. **SHALL** contain exactly one [1..1] id (CONF:1129-22119).
  - a. This id **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-22785).
8. **SHALL** contain exactly one [1..1] statusCode (CONF:1129-22120).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1129-28105).
9. **SHALL** contain exactly one [1..1] effectiveTime (CONF:1129-22121).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] low (CONF:1129-22122).
    - i. This low **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-22786).



- b. This effectiveTime **SHALL** contain exactly one [1..1] **high** (CONF:1129-22123).
    - i. This high **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-22787).
- 10. **SHALL** contain exactly one [1..1] **consumable** (CONF:1129-21362).
  - a. This consumable **SHALL** contain exactly one [1..1] **manufacturedProduct** (CONF:1129-21363).
    - i. This manufacturedProduct **SHALL** contain exactly one [1..1] @classCode="MANU" Manufactured product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:1129-21364).
    - ii. This manufacturedProduct **SHALL** contain exactly one [1..1] **templateId** (CONF:1129-30556) such that it
      - 1. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.23" (CONF:1129-30557).
    - iii. This manufacturedProduct **SHALL** contain exactly one [1..1] **manufacturedMaterial** (CONF:1129-21365).
      - 1. This manufacturedMaterial **SHALL** contain exactly one [1..1] @classCode="MMAT" Manufactured material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:1129-21366).
      - 2. This manufacturedMaterial **SHALL** contain exactly one [1..1] **code** (CONF:1129-21367).
        - a. To record a skin-preparation solution as a code, the value of @code **SHALL** be selected from ValueSet 2.16.840.1.114222.4.11.3183 NHSNSkinPreparationCode **DYNAMIC**. Or, to record a skin-preparation solution as text, the value of @nullFlavor **SHALL** be OTH and an originalText element **SHALL** be present recording the skin-preparation solution (CONF:1129-21368).

When recording whether chlorhexidine gluconate was applied, if it was not applied, NHSN protocol requires that it be recorded whether there was a contraindication to it.

- 11. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1129-23291) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1129-23292).
  - b. **SHALL** contain exactly one [1..1] [Contraindicated Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.118:2014-12-01) (CONF:1129-30431).
    - i. When recording whether chlorhexidine gluconate was applied, if it was not applied, and was contraindicated, the value of @negationInd on the Contraindicated Observation **SHALL** be false. If it was not contraindicated, the value of @negationInd on the Contraindicated Observation **SHALL** be true. If it is not known whether it was contraindicated, the value of @nullFlavor on the Contraindicated Observation **SHALL** be UNK. For examples and further explanation, see the Contraindicated Observation template (CONF:1129-23294).

- c. If chlorhexidine gluconate was NOT applied, **SHALL** contain an entryRelationship containing a Contraindicated Observation (CONF:1129-23295).

**Table 459: NHSNSkinPreparationCode**

Value Set: NHSNSkinPreparationCode urn:oid:2.16.840.1.114222.4.11.3183 (Clinical Focus: Skin antiseptic used prior to catheter insertion for NHSN surveillance reporting of Central Line Insertion Practices (CLIP) adherence monitoring),(Data Element Scope: A code identifying the manufactured skin preparation solution used.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3183/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3183/expansion</a>			
Code	Code System	Code System OID	Print Name
20791	RxNorm	urn:oid:2.16.840.1.113883.6.88	chlorhexidine gluconate
797541	RxNorm	urn:oid:2.16.840.1.113883.6.88	isopropyl alcohol
8611	RxNorm	urn:oid:2.16.840.1.113883.6.88	povidone-iodine

**Figure 169: Skin Preparation Clinical Statement (V2) Example**

<pre> &lt;substanceAdministration moodCode="EVN" classCode="SBADM" negationInd="false"&gt;   &lt;!-- C-CDA Medication Activity templateId --&gt;   &lt;templateId root="2.16.840.1.113883.10.20.22.4.16"/&gt;   &lt;!-- HAI Skin preparation Clinical Statement (V2) templateId --&gt;   &lt;templateId root="2.16.840.1.113883.10.20.5.6.162"     extension="2014-12-01" /&gt;   &lt;id nullFlavor="NA"/&gt;   &lt;statusCode code="completed"/&gt;   &lt;effectiveTime xsi:type="IVL_TS"&gt;     &lt;low nullFlavor="NA"/&gt;     &lt;high nullFlavor="NA"/&gt;   &lt;/effectiveTime&gt;   &lt;consumable&gt;     &lt;manufacturedProduct classCode="MANU"&gt;       &lt;templateId root="2.16.840.1.113883.10.20.22.4.23" /&gt;       &lt;manufacturedMaterial classCode="MMAT"&gt;         &lt;code codeSystem="2.16.840.1.113883.6.88"           codeSystemName="RxNorm"           code="6052"           displayName="Alcohol"/&gt;       &lt;/manufacturedMaterial&gt;     &lt;/manufacturedProduct&gt;   &lt;/consumable&gt;   ... &lt;/substanceAdministration&gt; </pre>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Figure 170: Skin Preparation Clinical Statement (V2) - Chlorhexidine Not Applied Example**

```
<substanceAdministration moodCode="EVN" classCode="SBADM" negationInd="true">
  <!-- C-CDA Medication Activity templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.16" />
  <!-- HAI Skin preparation Clinical Statement (V2) templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.162"
    extension="2014-12-01"/>
  <id nullFlavor="NA" />
  <statusCode code="completed" />
  <effectiveTime xsi:type="IVL_TS">
    <low nullFlavor="NA" />
    <high nullFlavor="NA" />
  </effectiveTime>
  <consumable>
    <manufacturedProduct classCode="MANU">
      <!-- C-CDA Medication Information templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.23"/>
      <manufacturedMaterial classCode="MMAT">
        <code codeSystem="2.16.840.1.113883.6.88"
          codeSystemName="RxNorm"
          code="20791"
          displayName="Chlorhexidine gluconate" />
      </manufacturedMaterial>
    </manufacturedProduct>
  </consumable>
  <!-- if chlorhexidine was not applied, record here whether it was contraindicated -->
  <entryRelationship typeCode="RSON">
    <!-- Contraindicated Observation -->
    <!-- It is true (not-negated) that the target statement was contraindicated -->
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Indication templateId-->
      <templateId root="2.16.840.1.113883.10.20.22.4.19" />
      <!-- HAI Contraindicated Observation (V2) templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.118"
        extension="2014-12-01" />
      ...
    </observation>
  </entryRelationship>
</substanceAdministration>
```

### 3.113Skin-Preparation Solutions Applied Organizer (V2)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.183:2014-12-01 (closed)]

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**Table 460: Skin-Preparation Solutions Applied Organizer (V2) Contexts**

Contained By:	Contains:
<a href="#">Central-Line Insertion Preparation Organizer (V2)</a> (required)	<a href="#">Skin Preparation Clinical Statement (V2)</a> (required)

This organizer reports what skin-preparation solutions were applied. It is one of the actions recorded in the first, preparatory step in the central-line insertion practice sequence.

The Skin Preparation Clinical Statement provides the list of skin preparation solutions to record.

**Table 461: Skin-Preparation Solutions Applied Organizer (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.183:2014-12-01)					
@classCode	1..1	SHALL		<a href="#">1129-22252</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">1129-22253</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1129-22254</a>	
@root	1..1	SHALL		<a href="#">1129-28110</a>	2.16.840.1.113883.10.20.5.6.183
@extension	1..1	SHALL		<a href="#">1129-30293</a>	2014-12-01
statusCode	1..1	SHALL		<a href="#">1129-22257</a>	
@code	1..1	SHALL		<a href="#">1129-22258</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
component	1..*	SHALL		<a href="#">1129-22260</a>	
substanceAdministration	1..1	SHALL		<a href="#">1129-30432</a>	<a href="#">Skin Preparation Clinical Statement (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.162:2014-12-01</a>

1. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" Cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1129-22252).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1129-22253).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1129-22254) such that it

- a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.183" (CONF:1129-28110).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30293).
4. **SHALL** contain exactly one [1..1] statusCode (CONF:1129-22257).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1129-22258).
5. **SHALL** contain at least one [1..\*] component (CONF:1129-22260).
  - a. Such components **SHALL** contain exactly one [1..1] [Skin Preparation Clinical Statement \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.162:2014-12-01) (CONF:1129-30432).
  - b. A component containing a Skin Preparation Clinical Statement **SHALL** be present for each skin-preparation solution required by the NHSN protocol. One additional such component element **MAY** be present recording an uncoded (text) skin-preparation solution (CONF:1129-22262).

**Figure 171: Skin-Preparation Solutions Applied Organizer (V2) Example**

```

<organizer moodCode="EVN" classCode="CLUSTER">
  <!-- Skin-Preparation Solutions Applied Organizer (V2) templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.183"
    extension="2014-12-01" />
  <statusCode code="completed"/>
  <component>
    <substanceAdministration>
      <!-- C-CDA Medication Activity templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.16"/>
      <!-- HAI Skin Preparation Clinical Statement (V2) templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.162"
        extension="2014-12-01" />
      ...
    </substanceAdministration>
  </component>
  ...
</organizer>

```

### 3.114 Solutions Dried Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.163 (closed)]

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Release 1 - US Realm

**Table 462: Solutions Dried Observation Contexts**

Contained By:	Contains:
<a href="#">Central-Line Insertion Practice Clinical Statement (V2)</a> (required)	

This clinical statement represents the second step in the central-line insertion practice sequence: whether the skin-preparation solution(s) applied had dried before the next step, which is the central-line insertion itself.

If the step was completed at this place in the sequence, set the value of @negationInd to false. If this step was not completed at this place in the sequence, set the value of @negationInd to true.

**Table 463: Solutions Dried Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.163)					
@classCode	1..1	SHALL		<a href="#">86-20938</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-20939</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-20940</a>	
templateId	1..1	SHALL		<a href="#">86-28277</a>	
@root	1..1	SHALL		<a href="#">86-28278</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-20943</a>	
@root	1..1	SHALL		<a href="#">86-20944</a>	2.16.840.1.113883.10.20.5.6.163
id	1..1	SHALL		<a href="#">86-20945</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22783</a>	NA
code	1..1	SHALL		<a href="#">86-20946</a>	
@code	1..1	SHALL	CS	<a href="#">86-20947</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28389</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-20948</a>	
@code	1..1	SHALL		<a href="#">86-20949</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-20950</a>	
@code	1..1	SHALL		<a href="#">86-20952</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 3114-6

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-20938).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-20939).
4. **SHALL** contain exactly one [1..1] @negationInd (CONF:86-20940).
5. **SHALL** contain exactly one [1..1] templateId (CONF:86-28277) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28278).

6. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-20943) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.163" (CONF:86-20944).
7. **SHALL** contain exactly one [1..1] **id** (CONF:86-20945).
  - a. This **id** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22783).
8. **SHALL** contain exactly one [1..1] **code** (CONF:86-20946).
  - a. This **code** **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:86-20947).
  - b. This **code** **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28389).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-20948).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-20949).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:86-20950).
  - a. This **value** **SHALL** contain exactly one [1..1] **@code**="3114-6" Solution(s) had dried (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277 **STATIC**) (CONF:86-20952).

**Figure 172: Solutions Dried Observation Example**

```

<sequenceNumber value="2"/>
<observation moodCode="EVN" classCode="OBS" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Solutions Dried Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.163"/>
  <id nullFlavor="NA" />
  <code code="ASSERTION"
        codeSystem="2.16.840.1.113883.5.4" />
  <statusCode code="completed"/>
  <value xsi:type="CD"
        code="3114-6"
        codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        displayName="Solution(s) had dried"/>
</observation>

```

### 3.115Specimen Collection Encounter (ARO) (V2)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.187:2020-04-01 (closed)]

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**Table 464: Specimen Collection Encounter (ARO) (V2) Contexts**

Contained By:	Contains:
<a href="#">Specimen Collection Procedure (ARO) (V5)</a> (required)	<a href="#">Patient Admitted This Encounter Observation</a> (required)

The Specimen Collection Encounter (ARO) records the in-facility location where a specimen was collected.

This template conforms to the C-CDA Encounter Activities template. That template requires an id; in the NHSN ARO Report, the id of the encounter is not reported, therefore a "NA" nullFlavor is used for the required id.

The participant element represents the in-facility location where the specimen was collected. The value of participantRole/id/@root will be the same as the healthCareFacility in the encompassingEncounter, but here it is scoping the in-facility location where the specimen was collected, represented in the @extension.

The contained Patient Admitted This Encounter Observation represents whether or not the patient was admitted to an inpatient location during this encounter.



**Table 465: Specimen Collection Encounter (ARO) (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.187:2020-04-01)					
@classCode	1..1	SHALL		<a href="#">4459-22649</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">4459-22650</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">4459-28279</a>	
@root	1..1	SHALL		<a href="#">4459-28280</a>	2.16.840.1.113883.10.20.22.4.49
templateId	1..1	SHALL		<a href="#">4459-22651</a>	
@root	1..1	SHALL		<a href="#">4459-22652</a>	2.16.840.1.113883.10.20.5.6.187
@extension	1..1	SHALL		<a href="#">4459-30795</a>	2020-04-01
id	1..1	SHALL		<a href="#">4459-22653</a>	
@nullFlavor	1..1	SHALL		<a href="#">4459-22654</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = NA
effectiveTime	1..1	SHALL		<a href="#">4459-22655</a>	
@nullFlavor	1..1	SHALL		<a href="#">4459-22656</a>	NA
participant	1..1	SHALL		<a href="#">4459-22657</a>	
@typeCode	1..1	SHALL		<a href="#">4459-22658</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">4459-22659</a>	
@classCode	1..1	SHALL		<a href="#">4459-22660</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = SDLOC
id	1..1	SHALL		<a href="#">4459-22661</a>	
@root	1..1	SHALL		<a href="#">4459-22662</a>	
@extension	1..1	SHALL		<a href="#">4459-22663</a>	
playingEntity	1..1	SHALL		<a href="#">4459-22664</a>	
@classCode	1..1	SHALL		<a href="#">4459-22665</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PLC
code	1..1	SHALL		<a href="#">4459-</a>	urn:oid:2.16.840.1.113883.13.

XPath	Card.	Verb	Data Type	CONF#	Value
				<a href="#">22666</a>	19 (NHSNHealthcareServiceLocationCode)
entryRelationship	1..1	SHALL		<a href="#">4459-30796</a>	
@typeCode	1..1	SHALL		<a href="#">4459-30798</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">4459-30797</a>	<a href="#">Patient Admitted This Encounter Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.266:2020-04-01)</a>

1. Conforms to Encounter Activities template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.49).
2. **SHALL** contain exactly one [1..1] **@classCode**="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4459-22649).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4459-22650).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4459-28279) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.49" (CONF:4459-28280).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4459-22651) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.187" (CONF:4459-22652).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2020-04-01" (CONF:4459-30795).
6. **SHALL** contain exactly one [1..1] **id** (CONF:4459-22653).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4459-22654).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4459-22655).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:4459-22656).
8. **SHALL** contain exactly one [1..1] **participant** (CONF:4459-22657).
  - a. This participant **SHALL** contain exactly one [1..1] **@typeCode**="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:4459-22658).
  - b. This participant **SHALL** contain exactly one [1..1] **participantRole** (CONF:4459-22659).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode**="SDLOC" Service delivery location (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:4459-22660).
    - ii. This participantRole **SHALL** contain exactly one [1..1] **id** (CONF:4459-22661).

The value of @root must be the NHSN assigned Facility OID.

1. This id **SHALL** contain exactly one [1..1] @root (CONF:4459-22662).

The value of @extension must be a value registered with NHSN.

2. This id **SHALL** contain exactly one [1..1] @extension (CONF:4459-22663).
- iii. This participantRole **SHALL** contain exactly one [1..1] playingEntity (CONF:4459-22664).
  1. This playingEntity **SHALL** contain exactly one [1..1] @classCode="PLC" Place (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:4459-22665).
  2. This playingEntity **SHALL** contain exactly one [1..1] code, which **SHALL** be selected from ValueSet [NHSNHealthcareServiceLocationCode](#) urn:oid:2.16.840.1.113883.13.19 **DYNAMIC** (CONF:4459-22666).
9. **SHALL** contain exactly one [1..1] entryRelationship (CONF:4459-30796).
  - a. This entryRelationship **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4459-30798).
  - b. This entryRelationship **SHALL** contain exactly one [1..1] [Patient Admitted This Encounter Observation](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.266:2020-04-01) (CONF:4459-30797).

**Figure 173: Specimen Collection Encounter (ARO) (V2) Example**

```
<encounter classCode="ENC" moodCode="EVN">
  <!-- [HAI R3N1] Specimen Collection Encounter (ARO) (V2) -->
  <templateId root="2.16.840.1.113883.10.20.5.6.187" extension="2020-04-01" />
  <!-- [C-CDA R1.1] Encounter Activities -->
  <templateId root="2.16.840.1.113883.10.20.22.4.49" />
  <id nullFlavor="NA" />
  <effectiveTime nullFlavor="NA" />

  <!-- The in-facility location where the specimen was collected -->
  <participant typeCode="LOC">
    <participantRole classCode="SDLOC">
      <id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="9W" />
      <playingEntity classCode="PLC">
        <code codeSystem="2.16.840.1.113883.6.259" codeSystemName="HL7
HealthCareServiceLocation" code="1029-8" displayName="Medical/Surgical Critical Care" />
      </playingEntity>
    </participantRole>
  </participant>

  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- [HAI R3N1] Patient Admitted This Encounter Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.266" extension="2020-04-01" />
      ...
    </observation>
  </entryRelationship>
</encounter>
```

### 3.116 Specimen Collection Encounter (LIO)

[encounter: identifier urn:oid:2.16.840.1.113883.10.20.5.6.164 (closed)]

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Release 1 - US Realm

**Table 466: Specimen Collection Encounter (LIO) Contexts**

Contained By:	Contains:
<a href="#">Specimen Collection Procedure (LIO)</a> (required)	

The Specimen Collection Encounter (LIO) records the facility location where a specimen was collected and, if the patient was an inpatient, the date the patient was admitted or transferred to that in-facility location.

This template conforms to the C-CDA Encounter Activities template. That template requires an id; in the NHSN LIO Report, the id of the encounter is not reported, therefore a "NA" nullFlavor is used for the required id.

The participant element represents the facility location where the specimen was collected. The value of participantRole/id/@root will be the same as the healthCareFacility in the encompassingEncounter, but here it is scoping the facility location where the specimen was collected, represented in the @extension.

**Table 467: Specimen Collection Encounter (LIO) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
encounter (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.164)					
@classCode	1..1	SHALL		<a href="#">86-21563</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">86-21564</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-28281</a>	
@root	1..1	SHALL		<a href="#">86-28282</a>	2.16.840.1.113883.10.20.22.4.49
templateId	1..1	SHALL		<a href="#">86-21567</a>	
@root	1..1	SHALL		<a href="#">86-21568</a>	2.16.840.1.113883.10.20.5.6.164
id	1..1	SHALL		<a href="#">86-21569</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-21583</a>	NA
effectiveTime	1..1	SHALL		<a href="#">86-21584</a>	
participant	1..1	SHALL		<a href="#">86-21571</a>	
@typeCode	1..1	SHALL		<a href="#">86-21572</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">86-21573</a>	
@classCode	1..1	SHALL		<a href="#">86-21574</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = SDLOC
id	1..1	SHALL		<a href="#">86-21575</a>	
@root	1..1	SHALL		<a href="#">86-21576</a>	
@extension	1..1	SHALL		<a href="#">86-21577</a>	
playingEntity	1..1	SHALL		<a href="#">86-21578</a>	
@classCode	1..1	SHALL		<a href="#">86-21579</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PLC
code	1..1	SHALL		<a href="#">86-21580</a>	urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode)

1. Conforms to Encounter Activities template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.49).
2. **SHALL** contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21563).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21564).
4. **SHALL** contain exactly one [1..1] templateId (CONF:86-28281) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.49" (CONF:86-28282).

5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-21567) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.164" (CONF:86-21568).
6. **SHALL** contain exactly one [1..1] **id** (CONF:86-21569).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-21583).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:86-21584).
  - a. If the patient was an inpatient, an effectiveTime/low element **SHALL** be present representing the date the patient was admitted or transferred to that location (CONF:86-21585).
  - b. If the patient was not an inpatient and the encounter DateTime is not known or not available, an appropriate nullFlavor **SHALL** be used on effectiveTime element (CONF:86-21604).
8. **SHALL** contain exactly one [1..1] **participant** (CONF:86-21571).
  - a. This participant **SHALL** contain exactly one [1..1] **@typeCode**="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:86-21572).
  - b. This participant **SHALL** contain exactly one [1..1] **participantRole** (CONF:86-21573).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode**="SDLOC" Service delivery location (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:86-21574).
    - ii. This participantRole **SHALL** contain exactly one [1..1] **id** (CONF:86-21575).

The value of **@root** must be the NHSN assigned Facility OID.

1. This id **SHALL** contain exactly one [1..1] **@root** (CONF:86-21576).

The value of **@extension** must be a value registered with NHSN.

2. This id **SHALL** contain exactly one [1..1] **@extension** (CONF:86-21577).
- iii. This participantRole **SHALL** contain exactly one [1..1] **playingEntity** (CONF:86-21578).
  1. This playingEntity **SHALL** contain exactly one [1..1] **@classCode**="PLC" Place (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:86-21579).
  2. This playingEntity **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNHealthcareServiceLocationCode](#) urn:oid:2.16.840.1.113883.13.19 **DYNAMIC** (CONF:86-21580).

**Figure 174: Specimen Collection Location and Admission Date (LIO) Example**

```
<!-- Location and admission date -->
<encounter classCode="ENC" moodCode="EVN">
  <!-- C-CDA Encounter Activities templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.49" />
  <!-- HAI Specimen Collection Encounter (LIO) -->
  <templateId root="2.16.840.1.113883.10.20.5.6.164" />
  <id nullFlavor="NA" />
  <!-- If person was an inpatient at the in-facility location
       where the specimen was taken:
       date admitted/transferred there -->
  <effectiveTime>
    <low value="20090117" />
  </effectiveTime>
  <!-- The in-facility location where the specimen was taken -->
  <participant typeCode="LOC">
    <participantRole classCode="SDLOC">
      <id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="9W" />
      <playingEntity classCode="PLC">
        <code codeSystem="2.16.840.1.113883.6.259"
              codeSystemName="HL7 HealthcareServiceLocation"
              code="1029-8"
              displayName="Medical/Surgical Critical Care" />
      </playingEntity>
    </participantRole>
  </participant>
</encounter>
```

### 3.117 Specimen Collection Procedure (ARO) (V5)

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.188:2024-05-01  
(closed)]

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STU 3 - US Realm

**Table 468: Specimen Collection Procedure (ARO) (V5) Contexts**

Contained By:	Contains:
<a href="#">Findings Section in an ARO Report (V5)</a> (required)	<a href="#">Specimen Collection Encounter (ARO) (V2)</a> (required) <a href="#">Isolate Susceptibility Tests Organizer (V5)</a> (required)

The Specimen Collection Procedure (ARO) records the date a specimen was collected and the type of specimen. It includes a Specimen Collection Encounter (ARO), which records the in-facility location where the specimen was collected.

In the ARO Report, a collection procedure code is not recorded. The effectiveTime element records the date when the specimen was collected. The participant element records the specimen type.

**Table 469: Specimen Collection Procedure (ARO) (V5) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.188:2024-05-01)					
@classCode	1..1	SHALL		<a href="#">5554-22668</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">5554-22669</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">5554-22670</a>	
@root	1..1	SHALL		<a href="#">5554-22671</a>	2.16.840.1.113883.10.20.5.6.188
@extension	1..1	SHALL		<a href="#">5554-30472</a>	2024-05-01
effectiveTime	1..1	SHALL		<a href="#">5554-22672</a>	
@value	1..1	SHALL		<a href="#">5554-22673</a>	
specimen	1..1	SHALL		<a href="#">5554-27160</a>	
specimenRole	1..1	SHALL		<a href="#">5554-27161</a>	
specimenPlayingEntity	1..1	SHALL		<a href="#">5554-27162</a>	
code	1..1	SHALL		<a href="#">5554-27163</a>	urn:oid:2.16.840.1.114222.4.1.1.3249 (NHSNSpecimenTypeCode)
entryRelationship	1..1	SHALL		<a href="#">5554-22681</a>	
@typeCode	1..1	SHALL		<a href="#">5554-22682</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
@inversionInd	1..1	SHALL		<a href="#">5554-22683</a>	true
encounter	1..1	SHALL		<a href="#">5554-22684</a>	<a href="#">Specimen Collection Encounter (ARO) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.187:2020-04-01)</a>
entryRelationship	1..*	SHALL		<a href="#">5554-27164</a>	
@typeCode	1..1	SHALL		<a href="#">5554-27165</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
@inversionInd	1..1	SHALL		<a href="#">5554-27432</a>	true
organizer	1..1	SHALL		<a href="#">5554-30471</a>	<a href="#">Isolate Susceptibility Tests Organizer (V5) (identifier:</a>



XPath	Card.	Verb	Data Type	CONF#	Value
					<a href="#">urn:hl7ii:2.16.840.1.113883.10.20.5.6.201:2024-05-01</a>

1. **SHALL** contain exactly one [1..1] **@classCode="PROC"** Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:5554-22668).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:5554-22669).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:5554-22670) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.5.6.188"** (CONF:5554-22671).
  - b. **SHALL** contain exactly one [1..1] **@extension="2024-05-01"** (CONF:5554-30472).
4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:5554-22672).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **@value** (CONF:5554-22673).
5. **SHALL** contain exactly one [1..1] **specimen** (CONF:5554-27160).
  - a. This specimen **SHALL** contain exactly one [1..1] **specimenRole** (CONF:5554-27161).
    - i. This specimenRole **SHALL** contain exactly one [1..1] **specimenPlayingEntity** (CONF:5554-27162).
      1. This specimenPlayingEntity **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNSpecimenTypeCode](#) urn:oid:2.16.840.1.114222.4.11.3249 **DYNAMIC** (CONF:5554-27163).
6. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:5554-22681) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:5554-22682).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:5554-22683).
  - c. **SHALL** contain exactly one [1..1] [Specimen Collection Encounter \(ARO\) \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.187:2020-04-01) (CONF:5554-22684).
7. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:5554-27164) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:5554-27165).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:5554-27432).
  - c. **SHALL** contain exactly one [1..1] [Isolate Susceptibility Tests Organizer \(V5\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.201:2024-05-01) (CONF:5554-30471).

**Table 470: NHSNSpecimenTypeCode**

Value Set: NHSNSpecimenTypeCode urn:oid:2.16.840.1.114222.4.11.3249 (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the type of specimen.),(Data Element Scope: A code identifying the type of entity playing the role of specimen. A code identifying the type of specimen.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/16/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3249/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3249/expansion</a>			
Code	Code System	Code System OID	Print Name
110893002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Cutaneous cytologic material (specimen)
110894008	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Mammary cytologic material (specimen)
110896005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Subcutaneous cytologic material (specimen)
110903005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Nasal cytologic material (specimen)
110926003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Gallbladder cytologic material (specimen)
110931001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Penis cytologic material (specimen)
110933003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Prostate cytologic material (specimen)
110935005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Testis cytologic material (specimen)
110937002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Seminal vesicle cytologic material (specimen)
110939004	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Vas deferens cytologic material (specimen)
...			

**Figure 175: Specimen Collection Procedure (ARO) (V5) Example**

```
<procedure classCode="PROC" moodCode="EVN">
  <!-- [HAI R4STU3] Specimen Collection Procedure (ARO) (V5) -->
  <templateId root="2.16.840.1.113883.10.20.5.6.188" extension="2024-05-01" />
  <!-- Date specimen collected -->
  <effectiveTime value="20200121" />
  <specimen>
    <specimenRole>
      <specimenPlayingEntity>
        <!-- Specimen type -->
        <code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"
code="119297000" displayName="Blood specimen" />
        </specimenPlayingEntity>
      </specimenRole>
    </specimen>
  <!-- [HAI R3N1] Specimen Collection Encounter (ARO) -->
  <entryRelationship typeCode="COMP" inversionInd="true">
    <encounter classCode="ENC" moodCode="EVN">
      <!-- [HAI R3N1] Specimen Collection Encounter (ARO) (V2) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.187" extension="2020-04-01" />
      <!-- [C-CDA R1.1] Encounter Activities -->
      <templateId root="2.16.840.1.113883.10.20.22.4.49" />
      ...
    </encounter>
  </entryRelationship>
  <!-- [HAI R4STU3] Isolate Susceptibility Tests Organizer (V5) -->
  <entryRelationship typeCode="COMP" inversionInd="true">
    <organizer classCode="CLUSTER" moodCode="EVN">
      <!-- [HAI R4STU3] Isolate Susceptibility Tests Organizer (V5) -->
      <templateId root="2.16.840.1.113883.10.20.5.6.201" extension="2024-05-01" />
      ...
    </organizer>
  </entryRelationship>
</procedure>
```

### 3.118 Specimen Collection Procedure (LIO)

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.165 (closed)]

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**Table 471: Specimen Collection Procedure (LIO) Contexts**

Contained By:	Contains:
<a href="#">Pathogen Identified Observation (LIO) (V2)</a> (required)	<a href="#">Specimen Collection Encounter (LIO)</a> (required)

The Specimen Collection Procedure (LIO) records the date a specimen was collected and the type of specimen.

It includes a Specimen Collection Encounter (LIO), which records the facility location where the specimen was collected. For an inpatient, the date the patient was admitted or transferred to that in-facility location is included. For a patient that had a specimen collected while in an outpatient location

(e.g., Emergency Department) and was not admitted, the encounter date is reported within the admission date field. The template is derived from the Specimen Collection Procedure template from Public Health Case Reports.

In the LIO Report, a collection procedure code is not recorded. The effectiveTime element records the date when the specimen was collected. The participant element records the specimen type.

**Table 472: Specimen Collection Procedure (LIO) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.165)					
@classCode	1..1	SHALL		<a href="#">86-21389</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">86-21390</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-21982</a>	
@root	1..1	SHALL		<a href="#">86-21983</a>	2.16.840.1.113883.10.20.5.6.165
effectiveTime	1..1	SHALL		<a href="#">86-21391</a>	
@value	1..1	SHALL		<a href="#">86-21392</a>	
participant	1..1	SHALL		<a href="#">86-21393</a>	
@typeCode	1..1	SHALL		<a href="#">86-21394</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRD
participantRole	1..1	SHALL		<a href="#">86-21395</a>	
@classCode	1..1	SHALL		<a href="#">86-21396</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = SPEC
playingEntity	1..1	SHALL		<a href="#">86-21397</a>	
code	1..1	SHALL		<a href="#">86-21398</a>	urn:oid:2.16.840.1.114222.4.113249 (NHSNSpecimenTypeCode)
@nullFlavor	0..1	MAY		<a href="#">86-28200</a>	UNK
entryRelationship	1..1	SHALL		<a href="#">86-21400</a>	
@typeCode	1..1	SHALL		<a href="#">86-21401</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
@inversionInd	1..1	SHALL		<a href="#">86-21402</a>	true
encounter	1..1	SHALL		<a href="#">86-21403</a>	<a href="#">Specimen Collection Encounter (LIO) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.164</a>

1. **SHALL** contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21389).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21390).

3. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-21982) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.165" (CONF:86-21983).
4. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:86-21391).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **@value** (CONF:86-21392).
5. **SHALL** contain exactly one [1..1] **participant** (CONF:86-21393).
  - a. This participant **SHALL** contain exactly one [1..1] **@typeCode**="PRD" Product (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:86-21394).
  - b. This participant **SHALL** contain exactly one [1..1] **participantRole** (CONF:86-21395).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode**="SPEC" Specimen (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:86-21396).
    - ii. This participantRole **SHALL** contain exactly one [1..1] **playingEntity** (CONF:86-21397).

To record a specimen type, use **@code**. To record that the specimen type is not known, set the value of **@nullFlavor** to UNK.

1. This playingEntity **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNSpecimenTypeCode](#) urn:oid:2.16.840.1.114222.4.11.3249 **DYNAMIC** (CONF:86-21398).
  - a. This code **MAY** contain zero or one [0..1] **@nullFlavor**="UNK" (CONF:86-28200).
6. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:86-21400).
  - a. This entryRelationship **SHALL** contain exactly one [1..1] **@typeCode**="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:86-21401).
  - b. This entryRelationship **SHALL** contain exactly one [1..1] **@inversionInd**="true" (CONF:86-21402).
  - c. This entryRelationship **SHALL** contain exactly one [1..1] [Specimen Collection Encounter \(LIO\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.164) (CONF:86-21403).

**Figure 176: Specimen Collection Procedure (LIO) Example**

```
<!-- Specimen collection procedure contains specimen collection encounter -->
<procedure classCode="PROC" moodCode="EVN">
  <!-- Specimen Collection Procedure (LIO) -->
  <templateId root="2.16.840.1.113883.10.20.5.6.165" />
  <!-- Date specimen collected -->
  <effectiveTime value="20090121" />

  <!-- Specimen type -->
  <participant typeCode="PRD">
    <participantRole classCode="SPEC">
      <playingEntity>
        <code codeSystem="2.16.840.1.113883.6.96"
          codeSystemName="SNOMED CT"
          code="122571007"
          displayName="Pericardial fluid"/>
      </playingEntity>
    </participantRole>
  </participant>
  <entryRelationship typeCode="COMP" inversionInd="true">
    <!-- Specimen Collection Encounter (LIO) -->
    <encounter classCode="ENC" moodCode="EVN">
      <!-- C-CDA Encounter Activities templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.49" />
      <!-- HAI Specimen Collection Encounter (LIO) templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.164" />
      <id nullFlavor="NA" />
      <effectiveTime>
        <low value="20090117"/>
      </effectiveTime>
    </encounter>
  </entryRelationship>
</procedure>
```

### 3.119 Spinal Cord Injury Diagnosis

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.307:2025-05-01 (closed)]

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**Table 473: Spinal Cord Injury Diagnosis Contexts**

Contained By:	Contains:
<a href="#">Neurogenic Bladder Observation</a> (optional)	

This clinical statement represents a spinal cord injury (SCI) diagnosis.

**Table 474: Spinal Cord Injury Diagnosis Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.307:2025-05-01)					
@classCode	1..1	SHALL		<a href="#">5566-31184</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">5566-31185</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">5566-31171</a>	
@root	1..1	SHALL		<a href="#">5566-31176</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">5566-31175</a>	
@root	1..1	SHALL		<a href="#">5566-31182</a>	2.16.840.1.113883.10.20.5.6.307
@extension	1..1	SHALL		<a href="#">5566-31183</a>	2025-05-01
id	1..1	SHALL		<a href="#">5566-31172</a>	
@nullFlavor	1..1	SHALL		<a href="#">5566-31177</a>	NA
code	1..1	SHALL		<a href="#">5566-31173</a>	
@code	1..1	SHALL	CS	<a href="#">5566-31178</a>	55607006
@codeSystem	1..1	SHALL		<a href="#">5566-31179</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">5566-31174</a>	
@code	1..1	SHALL		<a href="#">5566-31180</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">5566-31181</a>	urn:oid:2.16.840.1.113762.1.4.1190.95 (NHSNSpinalCordInjury)

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:5566-31184).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:5566-31185).
4. **SHALL** contain exactly one [1..1] templateId (CONF:5566-31171) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:5566-31176).

5. **SHALL** contain exactly one [1..1] **templateId** (CONF:5566-31175) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.307" (CONF:5566-31182).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2025-05-01" (CONF:5566-31183).
6. **SHALL** contain exactly one [1..1] **id** (CONF:5566-31172).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:5566-31177).
7. **SHALL** contain exactly one [1..1] **code** (CONF:5566-31173).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="55607006" Problem (CONF:5566-31178).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:5566-31179).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:5566-31174).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:5566-31180).
9. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", where the code **SHALL** be selected from ValueSet [NHSNSpinalCordInjury](#) urn:oid:2.16.840.1.113762.1.4.1190.95 **DYNAMIC** (CONF:5566-31181).



**Table 475: NHSNSpinalCordInjury**

Value Set: NHSNSpinalCordInjury urn:oid:2.16.840.1.113762.1.4.1190.95 (Clinical Focus: In tandem with Neurogenic Bladder (NB) diagnosis codes, these diagnostic codes define Spinal Cord Injury - Neurogenic Bladder (SCI-NB) for NHSN surveillance purposes.),(Data Element Scope: Diagnosis code),(Inclusion Criteria: n/a),(Exclusion Criteria: n/a)  This value set was imported on 3/28/2025 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1190.95/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1190.95/expansion</a>			
Code	Code System	Code System OID	Print Name
G04.1	ICD-10-CM	urn:oid:2.16.840.1.113883.6.90	Tropical spastic paraplegia
G04.82	ICD-10-CM	urn:oid:2.16.840.1.113883.6.90	Acute flaccid myelitis
G04.89	ICD-10-CM	urn:oid:2.16.840.1.113883.6.90	Other myelitis
G04.91	ICD-10-CM	urn:oid:2.16.840.1.113883.6.90	Myelitis, unspecified
G06.1	ICD-10-CM	urn:oid:2.16.840.1.113883.6.90	Intraspinal abscess and granuloma
G07	ICD-10-CM	urn:oid:2.16.840.1.113883.6.90	Intracranial and intraspinal abscess and granuloma in diseases classified elsewhere
G08	ICD-10-CM	urn:oid:2.16.840.1.113883.6.90	Intracranial and intraspinal phlebitis and thrombophlebitis
G09	ICD-10-CM	urn:oid:2.16.840.1.113883.6.90	Sequelae of inflammatory diseases of central nervous system
G11.4	ICD-10-CM	urn:oid:2.16.840.1.113883.6.90	Hereditary spastic paraplegia
G12.0	ICD-10-CM	urn:oid:2.16.840.1.113883.6.90	Infantile spinal muscular atrophy, type I [Werdnig-Hoffman]
...			

**Figure 177: Spinal Cord Injury Diagnosis Example**

```
<observation moodCode="EVN" classCode="OBS" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4" />
  <!-- [HAI R4D4] Spinal Cord Injury Diagnosis -->
  <templateId root="2.16.840.1.113883.10.20.5.6.307" extension="2025-05-01" />
  <id nullFlavor="NA" />
  <code code="55607006"
    displayName="Problem (finding)"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT" />
  <statusCode code="completed" />
  <value xsi:type="CD" code="G04.1"
    codeSystem="2.16.840.1.113883.6.90"
    codeSystemName="ICD10CM"
    displayName="Tropical spastic paraplegia" />
</observation>
```

**3.120Spinal Fusion Level Observation**

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.166 (closed)]

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**Table 476: Spinal Fusion Level Observation Contexts**

Contained By:	Contains:
<a href="#">Procedure Details Clinical Statement in a Procedure Report (V2)</a> (optional)	

This observation records the spinal level of a spinal fusion procedure.

**Table 477: Spinal Fusion Level Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.166)					
@classCode	1..1	SHALL		<a href="#">86-21543</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-21544</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-28283</a>	
@root	1..1	SHALL		<a href="#">86-28284</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-21553</a>	
@root	1..1	SHALL		<a href="#">86-21554</a>	2.16.840.1.113883.10.20.5.6.166
id	1..1	SHALL		<a href="#">86-21555</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22775</a>	NA
code	1..1	SHALL		<a href="#">86-21545</a>	
@code	1..1	SHALL		<a href="#">86-21546</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28390</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-21547</a>	
@code	1..1	SHALL		<a href="#">86-21548</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-21549</a>	urn:oid:2.16.840.1.113883.13.11 (NHSNSpinalFusionLevelCode)

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21543).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21544).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28283) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28284).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-21553) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.166" (CONF:86-21554).
6. **SHALL** contain exactly one [1..1] **id** (CONF:86-21555).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22775).
7. **SHALL** contain exactly one [1..1] **code** (CONF:86-21545).

- a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-21546).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28390).
8. **SHALL** contain exactly one [1..1] statusCode (CONF:86-21547).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-21548).
9. **SHALL** contain exactly one [1..1] value with @xsi:type="CD", where the code **SHALL** be selected from ValueSet [NHSNSpinalFusionLevelCode](#) urn:oid:2.16.840.1.113883.13.11 **DYNAMIC** (CONF:86-21549).

**Table 478: NHSNSpinalFusionLevelCode**

Value Set: NHSNSpinalFusionLevelCode urn:oid:2.16.840.1.113883.13.11 (Clinical Focus: NHSN surveillance reporting: surgical site infections),(Data Element Scope: A coded observation value describing the spinal fusion level.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.11/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.11/expansion</a>			
Code	Code System	Code System OID	Print Name
1101-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Atlas-axis
1102-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Atlas-axis/Cervical
1103-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Cervical
1104-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Cervical/Dorsal/Dorsolumbar
1105-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Dorsal/Dorsolumbar
1106-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Lumbar/Lumbosacral

**Figure 178: Spinal Fusion Level Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Spinal Fusion Level Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.166"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="1101-5"
    displayName="atlas-axis (C1-C2 only)"/>
</observation>
```

### 3.121 SSI Detected Using Toolkit Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.206 (closed)]

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**Table 479: SSI Detected Using Toolkit Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Details Section in an SSI Report (V2)</a> (required)	

This template indicates that a surgical site infection was identified through the use of discharge diagnosis or procedure codes as described in the NHSN reporting protocol. It is based on the C-CDA Problem Observation template.

When the surgical site infection was identified through the use of discharge diagnosis or procedure codes, set the value of @negationInd to false. When the surgical site infection was not identified through the use of discharge diagnosis or procedure codes, set the value of @negationInd to true. If this observation is not required per the NHSN protocol, then set the value of @nullFlavor to "NA".

**Table 480: SSI Detected Using Toolkit Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.206)					
@nullFlavor	0..1	MAY		<a href="#">1101-30277</a>	NA
@classCode	1..1	SHALL		<a href="#">1101-30278</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1101-30279</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..1	MAY		<a href="#">1101-30280</a>	
templateId	1..1	SHALL		<a href="#">1101-30282</a>	
@root	1..1	SHALL		<a href="#">1101-30283</a>	2.16.840.1.113883.10.20.5.6.206
id	1..1	SHALL		<a href="#">1101-30284</a>	
@nullFlavor	1..1	SHALL		<a href="#">1101-30285</a>	NA
code	1..1	SHALL		<a href="#">1101-30286</a>	
@code	1..1	SHALL		<a href="#">1101-30287</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1101-30288</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1101-30289</a>	
@code	1..1	SHALL		<a href="#">1101-30290</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">1101-30291</a>	
@code	1..1	SHALL		<a href="#">1101-30292</a>	1238-5
@codeSystem	1..1	SHALL		<a href="#">1101-30293</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277

If this observation is not required per the NHSN protocol then set the value of @nullFlavor to NA.

- MAY** contain zero or one [0..1] @nullFlavor="NA" (CONF:1101-30277).
  - If the value of @nullFlavor is set to NA then the value of @negationInd **SHALL NOT** be set (CONF:1101-30298).
- SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1101-30278).

3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1101-30279).
4. **MAY** contain zero or one [0..1] **@negationInd** (CONF:1101-30280).
  - a. If the surgical site infection was identified through the use of discharge diagnosis or procedure codes, the value of **@negationInd** **SHALL** be false. If the surgical site infection was not identified through the use of discharge diagnosis or procedure codes, the value of **@negationInd** **SHALL** be true. If the value of **@negationInd** is set then the value of **@nullFlavor** **SHALL NOT** be set (CONF:1101-30281).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1101-30282) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.206" (CONF:1101-30283).
6. **SHALL** contain exactly one [1..1] **id** (CONF:1101-30284).
  - a. This **id** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:1101-30285).
7. **SHALL** contain exactly one [1..1] **code** (CONF:1101-30286).
  - a. This **code** **SHALL** contain exactly one [1..1] **@code**="ASSERTION" (CONF:1101-30287).
  - b. This **code** **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1101-30288).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1101-30289).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1101-30290).
9. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:1101-30291).
  - a. This **value** **SHALL** contain exactly one [1..1] **@code**="1238-5" SSI detected using the NHSN ICD-Code based Admit and Readmit SSI Surveillance Toolkit (CONF:1101-30292).
  - b. This **value** **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1101-30293).

**Figure 179: SSI Detected Using Toolkit Observation Example**

```
<!--
  If the surgical site infection was identified through the use
  of discharge diagnosis or procedure codes, the value of
  @negationInd SHALL be false.
  If the surgical site infection was not identified through the
  use of discharge diagnosis or procedure codes,
  the value of @negationInd SHALL be true.
  If the value of @negationInd is set then the value of
  @nullFlavor SHALL NOT be set.

  If this observation is not required per the NHSN protocol
  set the value of nullFlavor to NA as follows:
  <observation classCode="OBS" moodCode="EVN" nullFlavor="NA">
-->
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- SSI Detected Using Toolkit Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.206"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="1238-5"
    displayName="SSI detected using the NHSN ICD-Code based Admit
      and Readmit SSI Surveillance Toolkit"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"/>
</observation>
```

### 3.122 SSI Detection Method

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.261:2019-04-01  
(closed)]

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**Table 481: SSI Detection Method Contexts**

Contained By:	Contains:
<a href="#">Infection-Type Observation in an OPC SSI Event</a> (required)	

This template indicates that a surgical site infection event was identified by the ASC facility where the procedure was originally performed through the use of Active/Passive surveillance methods. The type of method used is recorded in code and the specific method is recorded in value.



**Table 482: SSI Detection Method Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.261:2019-04-01)					
@classCode	1..1	SHALL		<a href="#">4395-30794</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4395-30795</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">4395-30788</a>	
@root	1..1	SHALL		<a href="#">4395-30797</a>	2.16.840.1.113883.10.20.5.6.261
@extension	1..1	SHALL		<a href="#">4395-30804</a>	2019-04-01
id	1..1	SHALL		<a href="#">4395-30805</a>	
@nullFlavor	1..1	SHALL		<a href="#">4395-30806</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA
code	1..1	SHALL		<a href="#">4395-30846</a>	
@code	1..1	SHALL		<a href="#">4395-30847</a>	urn:oid:2.16.840.1.113883.10.20.5.9.31 (NHSNSSIDetectionMethodType)
statusCode	1..1	SHALL		<a href="#">4395-30791</a>	
@code	1..1	SHALL		<a href="#">4395-30801</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">4395-30848</a>	
@code	1..1	SHALL		<a href="#">4395-30849</a>	urn:oid:2.16.840.1.113883.10.20.5.9.29 (NHSNSSIDetectionMethod)

1. Conforms to Procedure Activity Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.13).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4395-30794).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4395-30795).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-30788) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.261" (CONF:4395-30797).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30804).
5. **SHALL** contain exactly one [1..1] **id** (CONF:4395-30805).

- a. This id **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:4395-30806).

The surveillance method type (Active/Passive)

6. **SHALL** contain exactly one [1..1] code (CONF:4395-30846).
  - a. This code **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet [NHSNSSIDetectionMethodType](#) urn:oid:2.16.840.1.113883.10.20.5.9.31 **DYNAMIC** (CONF:4395-30847).
7. **SHALL** contain exactly one [1..1] statusCode (CONF:4395-30791).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4395-30801).
8. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:4395-30848).

The code specifying the specific SSI Detection method used to identify the SSI event

- a. This value **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet [NHSNSSIDetectionMethod](#) urn:oid:2.16.840.1.113883.10.20.5.9.29 **DYNAMIC** (CONF:4395-30849).

**Table 483: NHSNSSIDetectionMethodType**

Value Set: NHSNSSIDetectionMethodType urn:oid:2.16.840.1.113883.10.20.5.9.31 (Clinical Focus: NHSN surveillance reporting: surgical site infections),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.31/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.31/expansion</a>			
Code	Code System	Code System OID	Print Name
1309-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.27 7	Active surgical site infection (SSI) detection method
1312-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.27 7	Passive surgical site infection (SSI) detection method

**Table 484: NHSNSSIDetectionMethod**

Value Set: NHSNSSIDetectionMethod urn:oid:2.16.840.1.113883.10.20.5.9.29 (Clinical Focus: NHSN surveillance reporting: surgical site infections),(Data Element Scope: A coded observation value describing how the facility performed the procedure detected the SSI.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.29/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.29/expansion</a>			
Code	Code System	Code System OID	Print Name
1321-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Review of patient's medical record
1322-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Post-discharge surgeon survey
1323-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Post-discharge patient letter
1324-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Post-discharge patient phone call
1325-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Cooperative infection prevention process between facilities
1326-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Patient or caregiver contacts facility to report
1327-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Patient returns to outpatient facility for follow-up
1328-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Surgeon contacts facility to report
1329-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Report from another facility (inpatient, health department, emergency department, etc.)

**Figure 180: SSI Detection Method Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- [HAI R3D4] SSI Detection Method -->
  <templateId root="2.16.840.1.113883.10.20.5.6.261" extension="2019-04-01" />
  <id nullFlavor="NA" />
  <code codeSystem="2.16.840.1.113883.6.277"
    code="1309-4"
    codeSystemName="cdcNHSN"
    displayName="Active SSI Detection Method" />
  <statusCode code="completed" />
  <value xsi:type="CD" code="1321-9"
    displayName="Review of patient's medical record"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN" />
</observation>
```

### 3.123 Sterile Barriers Applied Clinical Statement

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.167 (closed)]

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**Table 485: Sterile Barriers Applied Clinical Statement Contexts**

Contained By:	Contains:
<a href="#">Central-Line Insertion Preparation Organizer (V2)</a> (required)	

This clinical statement records sterile barriers applied. It is used in the first, preparatory step in the central-line insertion practice.

**Table 486: Sterile Barriers Applied Clinical Statement Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.167)					
@classCode	1..1	SHALL		<a href="#">86-21531</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">86-21532</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-21533</a>	false
templateId	1..1	SHALL		<a href="#">86-28285</a>	
@root	1..1	SHALL		<a href="#">86-28286</a>	2.16.840.1.113883.10.20.22.4.14
templateId	1..1	SHALL		<a href="#">86-21558</a>	
@root	1..1	SHALL		<a href="#">86-21559</a>	2.16.840.1.113883.10.20.5.6.167
id	1..1	SHALL		<a href="#">86-21560</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22772</a>	
code	1..1	SHALL		<a href="#">86-21534</a>	
@code	1..1	SHALL		<a href="#">86-21535</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 370822003
statusCode	1..1	SHALL		<a href="#">86-21561</a>	
@code	1..1	SHALL		<a href="#">86-21562</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
participant	0..*	MAY		<a href="#">86-21536</a>	
@typeCode	1..1	SHALL		<a href="#">86-21537</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV
participantRole	1..1	SHALL		<a href="#">86-21538</a>	
@classCode	1..1	SHALL		<a href="#">86-21539</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
playingDevice	1..1	SHALL		<a href="#">86-21540</a>	
code	1..1	SHALL		<a href="#">86-21541</a>	urn:oid:2.16.840.1.114222.4.11.3184 (NHSNSterileBarrierCode)

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. **SHALL** contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21531).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21532).
4. **SHALL** contain exactly one [1..1] @negationInd="false" (CONF:86-21533).
5. **SHALL** contain exactly one [1..1] templateId (CONF:86-28285) such that it

- a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.22.4.14"` (CONF:86-28286).
6. **SHALL** contain exactly one [1..1] `templateId` (CONF:86-21558) such that it
  - a. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.10.20.5.6.167"` (CONF:86-21559).
7. **SHALL** contain exactly one [1..1] `id` (CONF:86-21560).
  - a. This `id` **SHALL** contain exactly one [1..1] `@nullFlavor` (CONF:86-22772).
8. **SHALL** contain exactly one [1..1] `code` (CONF:86-21534).
  - a. This `code` **SHALL** contain exactly one [1..1] `@code="370822003"` Use of sterile technique (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:86-21535).
9. **SHALL** contain exactly one [1..1] `statusCode` (CONF:86-21561).
  - a. This `statusCode` **SHALL** contain exactly one [1..1] `@code="completed"` (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-21562).
10. **MAY** contain zero or more [0..\*] `participant` (CONF:86-21536).
  - a. The participant, if present, **SHALL** contain exactly one [1..1] `@typeCode="DEV"` Device (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:86-21537).
  - b. The participant, if present, **SHALL** contain exactly one [1..1] `participantRole` (CONF:86-21538).
    - i. This `participantRole` **SHALL** contain exactly one [1..1] `@classCode="MANU"` (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:86-21539).
    - ii. This `participantRole` **SHALL** contain exactly one [1..1] `playingDevice` (CONF:86-21540).
      1. This `playingDevice` **SHALL** contain exactly one [1..1] `code`, which **SHALL** be selected from ValueSet [NHSNSterileBarrierCode](#) urn:oid:2.16.840.1.114222.4.11.3184 **DYNAMIC** (CONF:86-21541).

**Table 487: NHSN Sterile Barrier Code**

Value Set: NHSN Sterile Barrier Code urn:oid:2.16.840.1.114222.4.11.3184 (Clinical Focus: NHSN surveillance reporting: sterile barriers used during catheter insertion for Central Line Insertion Practices (CLIP) adherence monitoring),(Data Element Scope: A code describing the type of sterile barrier used.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3184/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3184/expansion</a>			
Code	Code System	Code System OID	Print Name
6110-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Mask
6111-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Sterile gown
6112-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Large sterile drape
6113-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Sterile gloves
6122-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Cap

**Figure 181: Sterile Barriers Applied Clinical Statement Example**

<pre> &lt;procedure moodCode="EVN" classCode="PROC" negationInd="false"&gt;   &lt;!-- C-CDA Procedure Activity Procedure templateId --&gt;   &lt;templateId root="2.16.840.1.113883.10.20.22.4.14" /&gt;   &lt;!-- HAI Sterile Barriers Applied Clinical Statement templateId --&gt;   &lt;templateId root="2.16.840.1.113883.10.20.5.6.167" /&gt;   &lt;id nullFlavor="NA" /&gt;   &lt;code code="370822003"     codeSystem="2.16.840.1.113883.6.96"     codeSystemName="SNOMED CT"     displayName="Use of Sterile Technique" /&gt;   &lt;statusCode code="completed" /&gt;   &lt;participant typeCode="DEV"&gt;     &lt;participantRole classCode="MANU"&gt;       &lt;playingDevice&gt;         &lt;code code="6110-1"           codeSystem="2.16.840.1.113883.6.277"           codeSystemName="cdcNHSN"           displayName="Mask/Eye shield" /&gt;       &lt;/playingDevice&gt;     &lt;/participantRole&gt;   &lt;/participant&gt;   ... &lt;/procedure&gt; </pre>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### 3.124Summary Data Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.185 (closed)]

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**Table 488: Summary Data Observation Contexts**

Contained By:	Contains:
<a href="#">Summary Encounter</a> (required) <a href="#">Summary Encounter (NICU)</a> (required) <a href="#">Summary Data Observation (POM)</a> (optional) <a href="#">Summary Data Observation (VAT)</a> (optional) <a href="#">Summary Encounter (HP-FLU)</a> (required)	

The Summary Data Observation is used in some population-summary reports.

The documentationOf/serviceEvent/code in the header identifies the intended content of the report. For example, cdcNHSN code 1879-6 indicates that the data content is "Summary data reporting catheter and ventilator use in an ICU". NHSN protocol specifies which data to report for each type of content. The data required by NHSN for most types of content, at time of publication, are shown in the tables below.

The table of codes for a particular report indicate what data are required at time of publication for the NHSN protocol. Accordingly, the Summary Encounter will contain the same number of Summary Data Observations as codes in the table.

Most Summary Data Observations are a simple code-value pair. The code element identifies the datum being reported, and the value element records a number of days, patients, episodes, or events.

**Table 489: Summary Data Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185)					
@classCode	1..1	SHALL		<a href="#">86-22407</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-22408</a>	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-22409</a>	
@root	1..1	SHALL		<a href="#">86-22410</a>	2.16.840.1.113883.10.20.5.6. 185
code	1..1	SHALL		<a href="#">86-22411</a>	
statusCode	1..1	SHALL		<a href="#">86-22412</a>	
@code	1..1	SHALL		<a href="#">86-28189</a>	urn:oid:2.16.840.1.113883.5.1 4 (HL7ActStatus) = completed
value	1..1	SHALL		<a href="#">86-22413</a>	

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:86-22407).



2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:86-22408).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22409) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.185" (CONF:86-22410).
4. **SHALL** contain exactly one [1..1] **code** (CONF:86-22411).
  - a. If this is ICU Summary Data, NHSN protocol requires, at the time of publication, the data in the [Codes for Intensive Care Unit \(ICU\) Summary Data](#) table below (CONF:86-28193).
  - b. If this is NICU Summary Data, NHSN protocol requires, at the time of publication, the data in the [Codes for Neonatal Intensive Care Unit \(NICU\) Summary Data](#) table below (CONF:86-28194).
  - c. If this is SCA Summary Data, NHSN protocol requires, at the time of publication, the data in the [Codes for Specialty Care Area \(SCA\) Summary Data](#) table below (CONF:86-28195).
  - d. If this is VAT (Dialysis) Summary Data, NHSN protocol requires, at the time of publication, the data in the [Codes for Vascular Access Type \(Dialysis\) Summary Data](#) table below (CONF:86-28196).
  - e. If this is POM Summary Data, NHSN protocol requires, at the time of publication, the data in the [Codes for Prevention Process and Outcome Measures \(POM\) Summary Data](#) table below (CONF:86-28199).
  - f. If this is OPC Same Day Outcome Measures Summary Data, NHSN protocol requires, at the time of publication, the data in the [Codes for Outpatient Procedure Component Same Day Outcome Measures Summary Data](#) table below (CONF:86-28407).
  - g. If this is HP-FLU Summary Data, NHSN protocol requires, at the time of publication, the data in the [Codes for Healthcare Personnel Influenza Vaccination Summary Data](#) table below (CONF:86-28405).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-22412).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-28189).
6. **SHALL** contain exactly one [1..1] **value** (CONF:86-22413).
  - a. If the observation reports a number of days, the value of value/xsi:type **SHALL** be PQ and the value of value/@unit **SHALL** be d. If the observation reports a number of patients, episodes or events the value of value/@xsi:type **SHALL** be INT. If the value is a code, the value of value/@xsi:type **SHALL** be CD (CONF:86-26183).

**Table 490: Codes for Intensive Care Unit (ICU) Summary Data**

Value Set: Codes for Intensive Care Unit (ICU) Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.12 (Clinical Focus: NHSN surveillance reporting: denominators for intensive care unit (ICU)),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.12/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.12/expansion</a>			
Code	Code System	Code System OID	Print Name
1826-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of new episodes of mechanical ventilation (EMV)
1833-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of central line days
1834-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of airway pressure release ventilation (APRV) days
1851-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of patient days
1852-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of ventilator days
1853-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of urinary catheter days

**Table 491: Codes for Neonatal Intensive Care Unit (NICU) Summary Data**

Value Set: Codes for Neonatal Intensive Care Unit (NICU) Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.13 (Clinical Focus: NHSN surveillance reporting: denominators for neonatal intensive care unit (NICU)),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.13/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.13/expansion</a>			
Code	Code System	Code System OID	Print Name
1333-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of episodes of mechanical ventilation (EMV) days
1851-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of patient days
1852-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of ventilator days
1853-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of urinary catheter days
1854-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of central line days including umbilical catheter

**Table 492: Codes for Specialty Care Area (SCA) Summary Data**

Value Set: Codes for Specialty Care Area (SCA) Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.16 (Clinical Focus: NHSN surveillance reporting: denominators for specialty care area (SCA) and oncology (ONC)),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.16/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.16/expansion</a>			
Code	Code System	Code System OID	Print Name
1826-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of new episodes of mechanical ventilation (EMV)
1834-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of airway pressure release ventilation (APRV) days
1851-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of patient days
1852-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of ventilator days
1853-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of urinary catheter days
3305-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of temporary central line days
3306-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of permanent central line days

**Table 493: Codes for Vascular Access Type (Dialysis) Summary Data**

Value Set: Codes for Vascular Access Type (Dialysis) Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.17 (Clinical Focus: NHSN surveillance reporting: monthly reporting denominators for dialysis),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )			
This value set was imported on 10/14/2020 with a version of Latest.			
Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.17/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.17/expansion</a>			
Code	Code System	Code System OID	Print Name
2310-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of chronic hemodialysis patients: fistula
2311-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of fistula patients who undergo buttonhole cannulation
2312-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of chronic hemodialysis patients: graft
2313-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of chronic hemodialysis patients: tunneled central line
2314-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of chronic hemodialysis patients: non-tunneled central line
2315-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of chronic hemodialysis patients: other access device
2316-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Summary data reporting vascular access types for chronic hemodialysis patients

**Table 494: Codes for Prevention Process and Outcome Measures (POM) Summary Data**

Value Set: Codes for Prevention Process and Outcome Measures (POM) Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.15 (Clinical Focus: NHSN surveillance reporting: monthly reporting denominators for prevention process and outcome measures),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.15/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.15/expansion</a>			
Code	Code System	Code System OID	Print Name
1827-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of patient days adjusted for MDRO reporting (for inpatient location)
1828-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of admissions adjusted for MDRO reporting (for inpatient location)
1830-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of patient days adjusted for C. difficile reporting (for inpatient location)
1864-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of observations in which hand hygiene was indicated
1865-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of observations in which hand hygiene was performed
1866-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of observations in which the use of gown and gloves was indicated
1867-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of observations in which gown and gloves were used
1870-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Timing of active surveillance testing (AST)
1871-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Active surveillance testing (AST) eligible patients
1872-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of patients eligible for monitoring at admission/transfer in
...			

**Table 495: Codes for Healthcare Personnel Influenza Vaccination (HP FLU) Summary Data**

Value Set: Codes for Healthcare Personnel Influenza Vaccination (HP FLU) Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.10 (Clinical Focus: NHSN surveillance reporting: numbers of healthcare personnel in categories tracked for an influenza season),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.10/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.10/expansion</a>			
Code	Code System	Code System OID	Print Name
86552-7	LOINC	urn:oid:2.16.840.1.113883.6.1	Staff [#] who worked at facility at least one day from October 1 through March 31
86553-5	LOINC	urn:oid:2.16.840.1.113883.6.1	Staff [#] who received influenza vaccination at the facility
86554-3	LOINC	urn:oid:2.16.840.1.113883.6.1	Staff [#] who provided documentation of influenza vaccine receipt
86555-0	LOINC	urn:oid:2.16.840.1.113883.6.1	Staff [#] who had a medical contraindication to the influenza vaccine
86556-8	LOINC	urn:oid:2.16.840.1.113883.6.1	Staff [#] who declined influenza vaccine
86557-6	LOINC	urn:oid:2.16.840.1.113883.6.1	Staff [#] with unknown influenza vaccination status

**Table 496: Codes for Outpatient Procedure Component Same Day Outcome Measures Summary Data**

Value Set: Codes for Outpatient Procedure Component Same Day Outcome Measures Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.32 (Clinical Focus: NHSN surveillance reporting: monthly reporting denominators for Outpatient Procedure Component Same Day Outcome Measures),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.32/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.32/expansion</a>			
Code	Code System	Code System OID	Print Name
1890-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of total facility encounters (for outpatient location)

**Figure 182: Summary Data Observation Example—NICU**

```
<!-- second participant: a subgroup of population reported on -->
<participant typeCode="SBJ" contextControlCode="OP">
  <participantRole classCode="PRS">
    <code codeSystem="2.16.840.1.113883.6.277"
      codeSystemName="cdcNHSN"
      code="3300-1"
      displayName="The subset of inpatients whose
        birth weight is under 750gm"/>
  </participantRole>
</participant>

<entryRelationship typeCode="COMP">
  <observation classCode="OBS" moodCode="EVN">
    <!-- Summary Data Observation templateId -->
    <templateId root="2.16.840.1.113883.10.20.5.6.185"/>
    <code code="1853-1"
      codeSystem="2.16.840.1.113883.6.277"
      codeSystemName="cdcNHSN"
      displayName="Number of urinary catheter days" />
    <statusCode code="completed" />
    <value unit="d"
      value="23"
      xsi:type="PQ" />
  </observation>
</entryRelationship>
```

**Figure 183: Summary Data Observation Example—SCA**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Summary Data Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.185"/>
  <code codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="3306-8"
    displayName="Number of permanent central line days"/>
  <statusCode code="completed"/>
  <value xsi:type="PQ"
    unit="d"
    value="100"/>
</observation>
```

**Figure 184: Summary Data Observation Example—ICU**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Summary Data Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.185"/>
  <code codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        code="1851-5"
        displayName="Number of Patient Days"/>
  <statusCode code="completed"/>
  <value xsi:type="PQ"
        unit="d"
        value="100"/>
</observation>
```

**Figure 185: Summary Data Observation Example—HP-FLU**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Summary Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.185" />
  <code codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        code="86553-5"
        displayName="Number of HCP who received an influenza
        vaccination at this healthcare facility since
        influenza vaccine became available this
        season" />
  <statusCode code="completed" />
  <value xsi:type="INT" value="55" />
</observation>
```

### 3.125 Summary Data Observation (AU/AR)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01  
(closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
Release 2 - US Realm

**Table 497: Summary Data Observation (AU/AR) Contexts**

Contained By:	Contains:
<a href="#">Summary Encounter Patient Presence (AUP) (V2)</a> (required)	
<a href="#">Summary Encounter (AUP) (V2)</a> (required)	
<a href="#">Summary Encounter (ARO) (V3)</a> (required)	

This template specializes the Summary Data Observation for the AU/AR population-summary reports. The documentationOf/serviceEvent/code in the header identifies the intended content of the report. For example, cdcNHSN code 1887-9 indicates that the data content is "Summary data reporting



Antimicrobial Usage". NHSN protocol specifies which data to report for each type of content. The data required by NHSN for each type of content, at time of publication, are shown in the tables below. The table of codes for a particular report indicate what data are required at time of publication for the NHSN protocol. Accordingly, the Summary Encounter will contain the same number of Summary Data Observations as codes in the table.

Most Summary Data Observations are a simple code-value pair. The code element identifies the datum being reported, and the value element records a number of days, patients, episodes, or events.

**Table 498: Summary Data Observation (AU/AR) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01)					
@classCode	1..1	SHALL		<a href="#">1181-30549</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1181-30550</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1181-30545</a>	
@root	1..1	SHALL		<a href="#">1181-30551</a>	2.16.840.1.113883.10.20.5.6.229
@extension	1..1	SHALL		<a href="#">1181-30561</a>	2015-04-01
code	1..1	SHALL		<a href="#">1181-30546</a>	
statusCode	1..1	SHALL		<a href="#">1181-30547</a>	
@code	1..1	SHALL		<a href="#">1181-30559</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL		<a href="#">1181-30548</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1181-30549).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1181-30550).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1181-30545) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.229" (CONF:1181-30551).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2015-04-01" (CONF:1181-30561).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1181-30546).
  - a. If this is ARO Summary Data, NHSN protocol requires, at the time of publication, the data in the Codes for Antimicrobial Resistance Option (ARO) Summary Data table below (CONF:1181-30552).

- b. If this is AUP Summary Data, NHSN protocol requires, at the time of publication, the data in the Codes for Antimicrobial Usage, Pharmacy (AUP) Summary Data table below (CONF:1181-30557).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1181-30547).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1181-30559).
6. **SHALL** contain exactly one [1..1] **value** (CONF:1181-30548).
  - a. If the observation reports a number of days, the value of value/xsi:type **SHALL** be PQ and the value of value/@unit **SHALL** be d. If the observation reports a number of patients, episodes or events the value of value/@xsi:type **SHALL** be INT. If the value is a code, the value of value/@xsi:type **SHALL** be CD (CONF:1181-30560).

**Table 499: Codes for Antimicrobial Resistance Option (ARO) Summary Data**

Value Set: Codes for Antimicrobial Resistance Option (ARO) Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.8 (Clinical Focus: NHSN surveillance reporting: monthly reporting denominators for antimicrobial resistance.),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.8/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.8/expansion</a>			
Code	Code System	Code System OID	Print Name
1851-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of patient days
1862-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of admissions
2409-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of blood cultures performed
1863-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of encounters

**Table 500: Codes for Antimicrobial Usage, Pharmacy (AUP) Summary Data**

Value Set: Codes for Antimicrobial Usage, Pharmacy (AUP) Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.9 (Clinical Focus: NHSN surveillance reporting: monthly reporting denominators for antimicrobial usage),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.9/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.9/expansion</a>			
Code	Code System	Code System OID	Print Name
1862-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of admissions
2524-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of therapy days
2525-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of patient-present days

**Figure 186: Summary Data Observation (AU/AR) Example**

<pre>&lt;observation classCode="OBS" moodCode="EVN"&gt;   &lt;!-- Summary Data Observation (AU/AR) templateId --&gt;   &lt;templateId root="2.16.840.1.113883.10.20.5.6.229"     extension="2015-04-01"/&gt;   &lt;code code="2409-1"     codeSystem="2.16.840.1.113883.6.277"     codeSystemName="cdcNHSN"     displayName="Number of blood cultures performed"/&gt;   &lt;statusCode code="completed"/&gt;   &lt;value xsi:type="INT" value="24" /&gt; &lt;/observation&gt;</pre>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### 3.126 Summary Data Observation (AUP)

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.194 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
Release 1 - US Realm

**Table 501: Summary Data Observation (AUP) Contexts**

Contained By:	Contains:
<a href="#">Summary Encounter (AUP) (V2)</a> (required)	

This template specializes the Summary Data Observation for an Antimicrobial Use (AUP) Summary Report.

The Summary Data Observation (AUP) records data for the antimicrobial stratified by route of administration. (See the NHSN protocol for how the values are calculated.) If a value is not applicable for a combination of drug and route, the value of @nullFlavor must be "NA".

**Table 502: Summary Data Observation (AUP) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.194)					
@classCode	1..1	SHALL		<a href="#">86-22910</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-22911</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-22912</a>	
@root	1..1	SHALL		<a href="#">86-22913</a>	2.16.840.1.113883.10.20.5.6.194
code	1..1	SHALL		<a href="#">86-22914</a>	
statusCode	1..1	SHALL		<a href="#">86-22915</a>	
@code	1..1	SHALL		<a href="#">86-28111</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL		<a href="#">86-22916</a>	
methodCode	1..1	SHALL		<a href="#">86-23044</a>	urn:oid:2.16.840.1.114222.4.11.3361 (NHSNRouteOfAdministration AURPCode)

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-22910).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-22911).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22912) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.194" (CONF:86-22913).
4. **SHALL** contain exactly one [1..1] **code** (CONF:86-22914).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-22915).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-28111).
6. **SHALL** contain exactly one [1..1] **value** (CONF:86-22916).
7. **SHALL** contain exactly one [1..1] **methodCode**, which **SHALL** be selected from ValueSet [NHSNRouteOfAdministrationAURPCode](#) urn:oid:2.16.840.1.114222.4.11.3361 **DYNAMIC** (CONF:86-23044).
8. If the observation reports a number of days, the value of value/xsi:type **SHALL** be PQ and the value of value/@unit **SHALL** be d. If the observation reports a number of patients, the value of value/@xsi:type **SHALL** be INT. If the value is a code, the value of value/@xsi:type **SHALL** be CD (CONF:86-22917).

**Table 503: NHSNRouteOfAdministrationAURPCode**

Value Set: NHSNRouteOfAdministrationAURPCode urn:oid:2.16.840.1.114222.4.11.3361 (Clinical Focus: NHSN surveillance reporting: Antimicrobial Use summary, route by which antimicrobial was administered),(Data Element Scope: A method code describing the route of administration of the antimicrobial.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3361/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3361/expansion</a>			
Code	Code System	Code System OID	Print Name
447694001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Respiratory tract route (qualifier value)
447964005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Digestive tract route (qualifier value)
47625008	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Intravenous route (qualifier value)
78421000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Intramuscular route (qualifier value)

**Figure 187: Summary Data Observation (AUP) Example**

<pre>&lt;observation classCode="OBS" moodCode="EVN"&gt;   &lt;templateId root="2.16.840.1.113883.10.20.5.6.194" /&gt;   &lt;code codeSystem="2.16.840.1.113883.6.277"     codeSystemName="cdcNHSN"     code="2524-7"     displayName="Number of Therapy Days" /&gt;   &lt;statusCode code="completed" /&gt;   &lt;value xsi:type="PQ" unit="d" value="3" /&gt;   &lt;methodCode code="447694001" codeSystemName="SNOMED CT"     codeSystem="2.16.840.1.113883.6.96"     displayName="Respiratory tract route"/&gt; &lt;/observation&gt;</pre>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### 3.127Summary Data Observation (HV)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.235:2015-10-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
Release 3, DSTU 1 - US Realm

**Table 504: Summary Data Observation (HV) Contexts**

Contained By:	Contains:
<a href="#">Summary Encounter (HV) (V2)</a> (required)	

This template specializes the Summary Data Observation for an HAI Hemovigilance (HV) Summary Report.

The documentationOf/serviceEvent/code in the header identifies the intended content of the report. NHSN protocol specifies which data to report for each type of content. The data required by NHSN for each type of content, at time of publication, are shown in the tables below.

The table of codes for a particular report indicate what data are required at time of publication for the NHSN protocol. Accordingly, the Summary Encounter will contain the same number of Summary Data Observations as codes in the table.

Most Summary Data Observations are a simple code-value pair. The code element identifies the datum being reported, and the value element records a number of days, patients, episodes, or events.

**Table 505: Summary Data Observation (HV) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.235:2015-10-01)					
@classCode	1..1	SHALL		<a href="#">1202-30675</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1202-30676</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1202-30671</a>	
@root	1..1	SHALL		<a href="#">1202-30677</a>	2.16.840.1.113883.10.20.5.6.235
@extension	1..1	SHALL		<a href="#">1202-30684</a>	2015-10-01
code	1..1	SHALL		<a href="#">1202-30672</a>	urn:oid:2.16.840.1.113883.10.20.5.9.11 (Codes for Hemovigilance (HV) Summary Data)
statusCode	1..1	SHALL		<a href="#">1202-30673</a>	
@code	1..1	SHALL		<a href="#">1202-30683</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	INT	<a href="#">1202-30674</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1202-30675).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1202-30676).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1202-30671) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.235" (CONF:1202-30677).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2015-10-01" (CONF:1202-30684).

4. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [Codes for Hemovigilance \(HV\) Summary Data](#) urn:oid:2.16.840.1.113883.10.20.5.9.11 **DYNAMIC** (CONF:1202-30672).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1202-30673).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1202-30683).
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="INT"** (CONF:1202-30674).

**Table 506: Codes for Hemovigilance (HV) Summary Data**

Value Set: Codes for Hemovigilance (HV) Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.11 (Clinical Focus: NHSN surveillance reporting: monthly reporting denominators for hemovigilance),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.11/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.11/expansion</a>			
Code	Code System	Code System OID	Print Name
3436-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Number of patient samples collected for type and screen or crossmatch
3538-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Total crossmatch procedures
3539-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Total patients transfused

**Figure 188: Summary Data Observation (HV) Example**

<pre> &lt;observation classCode="OBS" moodCode="EVN"&gt;   &lt;!-- Summary Data Observation (HV) --&gt;   &lt;templateId root="2.16.840.1.113883.10.20.5.6.235"     extension="2015-10-01" /&gt;   &lt;code codeSystem="2.16.840.1.113883.6.277"     codeSystemName="cdcNHSN"     code="3539-4"     displayName="Total patients transfused" /&gt;   &lt;statusCode code="completed" /&gt;   &lt;value xsi:type="INT" value="74" /&gt; &lt;/observation&gt; </pre>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### 3.128 Summary Data Observation (POM)

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.192 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
Release 1 - US Realm

**Table 507: Summary Data Observation (POM) Contexts**

Contained By:	Contains:
<a href="#">Summary Encounter (POM)</a> (required)	<a href="#">Summary Data Observation</a> (optional)

This template extends the Summary Data Observation for a POM Report.

When recording AST outcome measures, Summary Data Observation (POM)s record the organism monitored; the data required by NHSN protocol are recorded within those observations.

**Table 508: Summary Data Observation (POM) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.192)					
@classCode	1..1	SHALL		<a href="#">86-22855</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-22856</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-22857</a>	
@root	1..1	SHALL		<a href="#">86-22858</a>	2.16.840.1.113883.10.20.5.6.192
code	1..1	SHALL		<a href="#">86-22859</a>	
statusCode	1..1	SHALL		<a href="#">86-22860</a>	
@code	1..1	SHALL		<a href="#">86-28112</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL		<a href="#">86-22861</a>	
entryRelationship	0..*	MAY		<a href="#">86-23372</a>	
observation	1..1	SHALL		<a href="#">86-23373</a>	<a href="#">Summary Data Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185)</a>

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-22855).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-22856).
3. **SHALL** contain exactly one [1..1] templateId (CONF:86-22857) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.192" (CONF:86-22858).
4. **SHALL** contain exactly one [1..1] code (CONF:86-22859).
5. **SHALL** contain exactly one [1..1] statusCode (CONF:86-22860).



- a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-28112).
6. **SHALL** contain exactly one [1..1] value (CONF:86-22861).
  - a. To record which organism was monitored (code/@code 3193-0 AST Organism Monitored), the value of value/@code **SHALL** be selected from ValueSet NHSNOrganismASTCode 2.16.840.1.114222.4.11.3283 **DYNAMIC** (CONF:86-22862).
  - b. To record the timing of monitoring (code/@code 1870-5 Timing), the value of value/@code **SHALL** be selected from ValueSet 2.16.840.1.114222.4.11.3247 NHSNTimingCode **DYNAMIC** (CONF:86-22863).
  - c. To record eligibility criteria for monitoring (code/@code 1871-3 Eligibility), the value of value/@code **SHALL** be selected from ValueSet 2.16.840.1.114222.4.11.3248 NHSNEligibilityCode **DYNAMIC** (CONF:86-22864).
  - d. If the observation reports a number of days, the value of value/xsi:type **SHALL** be PQ and the value of value/@unit **SHALL** be d. If the observation reports a number of patients, the value of value/@xsi:type **SHALL** be INT. If the value is a code, the value of value/@xsi:type **SHALL** be CD (CONF:86-23371).
7. **MAY** contain zero or more [0..\*] entryRelationship (CONF:86-23372).
  - a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] [Summary Data Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185) (CONF:86-23373).
  - b. To record which organism was monitored (code/@code 3193-0 AST Organism Monitored) this observation **SHALL** contain, as entryRelationships where the value of @typeCode is COMP, Summary Data Observations recording the data collected for that class. The specific data required are specified by the NHSN protocol (CONF:86-23374).

**Table 509: NHSNOrganismASTCode**

Value Set: NHSNOrganismASTCode urn:oid:2.16.840.1.114222.4.11.3283 (Clinical Focus: Organisms monitored for adherence to active surveillance testing (AST) for NHSN reporting purposes),(Data Element Scope: A coded observation value describing the AST organism monitored.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3283/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3283/expansion</a>			
Code	Code System	Code System OID	Print Name
113727004	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Vancomycin resistant Enterococcus (organism)
115329001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Methicillin resistant Staphylococcus aureus (organism)

**Table 510: NHSNTimingCode**

Value Set: NHSNTimingCode urn:oid:2.16.840.1.114222.4.11.3247 (Clinical Focus: NHSN surveillance reporting: active surveillance culture/testing),(Data Element Scope: A coded observation value describing the timing of the organism monitoring.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3247/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3247/expansion</a>			
Code	Code System	Code System OID	Print Name
2201-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	On admission only
2202-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	On admission and on discharge/transfer

**Table 511: NHSNEligibilityCode**

Value Set: NHSNEligibilityCode urn:oid:2.16.840.1.114222.4.11.3248 (Clinical Focus: NHSN surveillance reporting: used to express the category of patients eligible for active surveillance culture/testing),(Data Element Scope: A code identify the type of encounter.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3248/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3248/expansion</a>			
Code	Code System	Code System OID	Print Name
2301-0	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	All patients
2302-8	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Only patients with no prior documentation of colonization or infection

**Figure 189: Summary Data Observation (POM) Example**

```
<!-- example showing AST for MRSA -->
<!-- The organism monitored was MRSA.
      Within this observation are child observations
      that record additional information about the monitoring
      and the data reported by the monitoring. -->
<!-- AST Organism Monitored -->
<observation classCode="OBS" moodCode="EVN">
  <!-- Summary Data Observation (POM) templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.192"/>
  <code codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        code="3193-0"
        displayName="AST Organism Monitored"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED CT"
        code="115329001"
        displayName="MRSA"/>
  <!-- The observations below are within
        the observation of what organism was monitored -->
  <!-- Timing of monitoring -->
  <entryRelationship>
    <observation classCode="OBS" moodCode="EVN">
      <!-- Summary Data Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.185"/>
      ...
    </observation>
  </entryRelationship>
  <!-- Eligibility for monitoring -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Summary Data Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.185"/>
      ...
    </observation>
  </entryRelationship>
  <!-- Number eligible on admission-->
  ...
  <!-- Number performed on admission-->
  ...
  <!-- Number eligible on discharge/transfer -->
  ...
  <!-- Number performed on discharge/transfer-->
  ...
  <!-- Number prevalent cases AST/clinical positive-->
  ...
  <!-- Number prevalent cases previously known-->
  ...
  <!-- Number incident cases -->
  ...
</observation>
<!-- end of data about monitoring for this organism -->
```

### 3.129Summary Data Observation (VAT)

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.195 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
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**Table 512: Summary Data Observation (VAT) Contexts**

Contained By:	Contains:
<a href="#">Summary Encounter (VAT)</a> (required)	<a href="#">Summary Data Observation</a> (optional)

This template specializes the Summary Data Observation for a Vascular Access Type Report. When the vascular access type is fistula there is an entryRelationship containing a Summary Data Observation recording the number of patients with buttonhole cannulation.

**Table 513: Summary Data Observation (VAT) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.195)					
@classCode	1..1	SHALL		<a href="#">86-22933</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-22934</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-22935</a>	
@root	1..1	SHALL		<a href="#">86-22936</a>	2.16.840.1.113883.10.20.5.6.195
code	1..1	SHALL		<a href="#">86-22937</a>	urn:oid:2.16.840.1.113883.10.20.5.9.17 (Codes for Vascular Access Type (Dialysis) Summary Data)
statusCode	1..1	SHALL		<a href="#">86-22938</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus)
@code	1..1	SHALL		<a href="#">86-28113</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL		<a href="#">86-22939</a>	
entryRelationship	0..1	MAY		<a href="#">86-22940</a>	
@typeCode	1..1	SHALL		<a href="#">86-22941</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">86-22942</a>	<a href="#">Summary Data Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185</a>

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-22933).

2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-22934).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22935) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.195" (CONF:86-22936).
4. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [Codes for Vascular Access Type \(Dialysis\) Summary Data](#) urn:oid:2.16.840.1.113883.10.20.5.9.17 **DYNAMIC** (CONF:86-22937).
5. **SHALL** contain exactly one [1..1] **statusCode** (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-22938).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-28113).
6. **SHALL** contain exactly one [1..1] **value** (CONF:86-22939).
7. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:86-22940).
  - a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:86-22941).
  - b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] [Summary Data Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185) (CONF:86-22942).
  - c. In a VAT Report, the Summary Observation recording the number of patients with fistula **SHALL** contain an entryRelationship where the value of **@typeCode** is COMP, that contains a Summary Data Observation recording the number of those patients with buttonhole cannulation (CONF:86-22943).
8. If the observation reports a number of days, the value of value/xsi:type **SHALL** be PQ and the value of value/@unit **SHALL** be d. If the observation reports a number of patients, the value of value/@xsi:type **SHALL** be INT. If the value is a code, the value of value/@xsi:type **SHALL** be CD (CONF:86-22944).

**Figure 190: Summary Data Observation (VAT) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Summary Data Observation (VAT) templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.195" />
  <code code="2310-1"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    displayName="Number of Chronic Hemodialysis Patients, vascular access
      type is fistula" />
  <statusCode code="completed" />
  <value value="100" xsi:type="INT" />
  <!-- When recording fistula, the patients with buttonhole cannulation
    is also required -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Summary Data Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.185" />
      <code code="2311-9"
        codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        displayName="Number of chronic hemodialysis patients, vascular
          access type is fistula, buttonhole cannulation" />
      <statusCode code="completed" />
      <value value="20" xsi:type="INT" />
    </observation>
  </entryRelationship>
</observation>
```

### 3.130 Summary Encounter

[encounter: identifier urn:oid:2.16.840.1.113883.10.20.5.6.184 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
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**Table 514: Summary Encounter Contexts**

Contained By:	Contains:
<a href="#">Summary Data Section</a> (required)	<a href="#">Summary Data Observation</a> (required)

A Summary Encounter records a set of summary data, usually for a population such as the patients in a ward in a specified period. The NHSN protocol defines which data to record for each type of summary report. Each datum is recorded as a Summary Data Observation. The data requirements at time of publication are shown in tables under the generic Summary Data Observation template, above.

The table of codes for a particular report indicate what data are required at time of publication for the NHSN protocol. Accordingly, the Summary Encounter will contain the same number of Summary Data Observations as codes in the table.

A participant element records the location to which the data pertains. It has three parts: a location id, a location type code, and a scoping entity. The location id has the form <id root="..." extension="..." /> representing a location such as ward 9W, or <id root="..." /> representing the whole facility. The scoping entity is optional if an id is present. However, specialized subsets of the facility such as “the

whole facility excluding NICU and well-baby units” have no NHSN location id, and the scopingEntity is required in those cases.

**Table 515: Summary Encounter Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
encounter (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.184)					
@classCode	1..1	SHALL		<a href="#">86-22392</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">86-22393</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-22394</a>	
@root	1..1	SHALL		<a href="#">86-22395</a>	2.16.840.1.113883.10.20.5.6.184
participant	1..1	SHALL		<a href="#">86-22397</a>	
@typeCode	1..1	SHALL		<a href="#">86-22398</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">86-22399</a>	
@classCode	1..1	SHALL		<a href="#">86-22400</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC
entryRelationship	1..*	SHALL		<a href="#">86-22404</a>	
@typeCode	1..1	SHALL		<a href="#">86-22405</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">86-22406</a>	<a href="#">Summary Data Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185)</a>

1. **SHALL** contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-22392).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-22393).
3. **SHALL** contain exactly one [1..1] templateId (CONF:86-22394) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.184" (CONF:86-22395).
4. **SHALL** contain exactly one [1..1] participant (CONF:86-22397) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:86-22398).
  - b. **SHALL** contain exactly one [1..1] participantRole (CONF:86-22399).
    - i. This participantRole **SHALL** contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:86-22400).

The value of @root must be the NHSN assigned Facility OID.

The value of @extension must be a value registered with NHSN.

- ii. If recording data from an in-facility location, the participantRole element **SHALL** contain an id element with both @root and @extension, and a code element where the value is selected from ValueSet NHSNHealthcareServiceLocationCode 2.16.840.1.113883.13.19 **DYNAMIC**, recording the type of location (CONF:86-22401).

The value of @root must be the NHSN assigned Facility OID.

- iii. Or, if recording data from the whole facility, the participantRole element **SHALL** contain an id element with @root (CONF:86-22402).

The value of @root must be the NHSN assigned Facility OID.

- iv. Or, if recording data from a specialized subset of a facility, the participantRole element **SHALL** contain a code element where the value is selected from ValueSet NHSNHealthcareServiceLocationCode 2.16.840.1.113883.13.19 **DYNAMIC**, recording the type of location, and a scopingEntity element where the value of @classCode is "PLC" and id/@root is present (CONF:86-22403).

5. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:86-22404).

- a. Such entryRelationships **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:86-22405).
- b. Such entryRelationships **SHALL** contain exactly one [1..1] [Summary Data Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185) (CONF:86-22406).



**Figure 191: Summary Encounter Example**

```
<encounter classCode="ENC" moodCode="EVN">
  <!-- Summary Encounter templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.184" />
  <!-- the in-facility location ID and type -->
  <participant typeCode="LOC">
    <participantRole classCode="SDLOC">
      <!-- the facility OID scopes the in-facility location ID -->
      <id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="9W" />
      <code codeSystem="2.16.840.1.113883.6.259"
        codeSystemName="HL7 HealthcareServiceLocation"
        code="1029-8"
        displayName="Medical/Surgical Critical Care" />
    </participantRole>
  </participant>

  <!-- Patient Days -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Summary Data Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.185" />
      ...
    </observation>
  </entryRelationship>

  <!-- Central Line Days -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Summary Data Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.185" />
      ...
    </observation>
  </entryRelationship>
  ...
</entryRelationship>
</encounter>
```

### 3.131 Summary Encounter (ARO) (V3)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.199:2019-04-01 (closed)]

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**Table 516: Summary Encounter (ARO) (V3) Contexts**

Contained By:	Contains:
<a href="#">Summary Data Section (ARO) (V3)</a> (required)	<a href="#">Summary Data Observation (AU/AR)</a> (required)

A Summary Encounter records a set of summary data, usually for a population such as the patients in a ward in a specified period. The NHSN protocol defines which data to record for each type of summary

report. For an ARO report, each datum is recorded as a Summary Data Observation (AU/AR). The data requirements at time of publication are shown in a table under the Summary Data Observation (AU/AR) template, above.

A participant element records the location to which the data pertains. The location id has the form <id root="..." extension="...">.

**Table 517: Summary Encounter (ARO) (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.199:2019-04-01)					
@classCode	1..1	SHALL		<a href="#">4395-23077</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">4395-23078</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">4395-23079</a>	
@root	1..1	SHALL		<a href="#">4395-23080</a>	2.16.840.1.113883.10.20.5.6.199
@extension	1..1	SHALL		<a href="#">4395-30919</a>	2019-04-01
participant	1..1	SHALL		<a href="#">4395-23081</a>	
@typeCode	1..1	SHALL		<a href="#">4395-23082</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">4395-23083</a>	
@classCode	1..1	SHALL		<a href="#">4395-23084</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC
id	1..1	SHALL		<a href="#">4395-23085</a>	
@root	1..1	SHALL		<a href="#">4395-23086</a>	
@extension	1..1	SHALL		<a href="#">4395-23087</a>	
code	1..1	SHALL		<a href="#">4395-23088</a>	urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode)
entryRelationship	1..*	SHALL		<a href="#">4395-23092</a>	
@typeCode	1..1	SHALL		<a href="#">4395-23093</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">4395-23094</a>	<a href="#">Summary Data Observation (AU/AR) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01)</a>

1. **SHALL** contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4395-23077).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4395-23078).

3. **SHALL** contain exactly one [1..1] **templateId** (CONF:4395-23079) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.199" (CONF:4395-23080).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-04-01" (CONF:4395-30919).
4. **SHALL** contain exactly one [1..1] **participant** (CONF:4395-23081) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:4395-23082).
  - b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:4395-23083).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode**="SDLOC" Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:4395-23084).
    - ii. This participantRole **SHALL** contain exactly one [1..1] **id** (CONF:4395-23085).

The value of **@root** must be the NHSN assigned Facility OID.

1. This id **SHALL** contain exactly one [1..1] **@root** (CONF:4395-23086).

The value of **@extension** must be a value registered with NHSN.

2. This id **SHALL** contain exactly one [1..1] **@extension** (CONF:4395-23087).
  - iii. This participantRole **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [NHSNHealthcareServiceLocationCode](#) urn:oid:2.16.840.1.113883.13.19 **DYNAMIC** (CONF:4395-23088).
5. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:4395-23092).
  - a. Such entryRelationships **SHALL** contain exactly one [1..1] **@typeCode**="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:4395-23093).
  - b. Such entryRelationships **SHALL** contain exactly one [1..1] [Summary Data Observation \(AU/AR\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01) (CONF:4395-23094).

**Figure 192: Summary Encounter (ARO) (V3)**

```
<!-- Summary Encounter -->
<encounter classCode="ENC" moodCode="EVN">
  <!-- Summary Encounter (ARO) (V3) templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.199"
    extension="2019-04-01"/>
  <!-- the location id and type -->
  <participant typeCode="LOC">
    <participantRole classCode="SDLOC">
      <id root="2.111.111.111.10709" extension="FACWIDEIN"/>
      <code codeSystem="2.16.840.1.113883.6.259"
        codeSystemName="HL7 Healthcare Service Location Code"
        code="1250-0"
        displayName="Facility Wide Inpatient"/>
    </participantRole>
  </participant>

  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Summary Data Observation (AU/AR) templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.229"
        extension="2015-04-01"/>
      <code code="1851-5"
        codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        displayName="Patient Days"/>
      <statusCode code="completed"/>
      <value xsi:type="PQ" unit="d" value="235"/>
    </observation>
  </entryRelationship>

  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Summary Data Observation (AU/AR) templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.229"
        extension="2015-04-01"/>
      <code code="1862-2" codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        displayName="Admission count"/>
      <statusCode code="completed"/>
      <value xsi:type="INT" value="46"/>
    </observation>
  </entryRelationship>

  <entryRelationship typeCode="COMP">
    <!-- Summary Data Observation (AU/AR) templateId -->
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.5.6.229"
        extension="2015-04-01"/>
      <code code="2409-1" codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        displayName="Blood cultures performed"/>
      <statusCode code="completed"/>
      <value xsi:type="INT" value="24"/>
    </observation>
  </entryRelationship>
```

</encounter>

### 3.132Summary Encounter (AUP) (V2)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.198:2015-04-01  
(closed)]

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Release 2 - US Realm

**Table 518: Summary Encounter (AUP) (V2) Contexts**

Contained By:	Contains:
<a href="#">Summary Data Section (AUP) (V2)</a> (required)	<a href="#">Summary Data Observation (AUP)</a> (required) <a href="#">Summary Data Observation (AU/AR)</a> (required)

A Summary Encounter records a set of summary data, usually for a population such as the patients in a ward in a specified period. The NHSN protocol defines which data to record for each type of summary report. For an AUP report, data are recorded in both a Summary Data Observation (AU/AR) (non-stratified data) and a Summary Data Observation (AUP) (stratified data). The data requirements at time of publication are shown in a table under the Summary Data Observation (AU/AR) template, above.

A participant element records the location to which the data pertains. It has three parts: a location id, a location type code, and a scoping entity. The location id has the form <id root="..." extension="..."/> representing a location such as ward 9W, or <id root="..."/> representing the whole facility. The scoping entity is optional if an id is present.

In an Antimicrobial Use Report, each antimicrobial is represented by a Summary Encounter. The antimicrobial is recorded as a participant in the encounter, in addition to the location participant.

**Table 519: Summary Encounter (AUP) (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.198:2015-04-01)					
@classCode	1..1	SHALL		<a href="#">1181-23019</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">1181-23020</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1181-23021</a>	
@root	1..1	SHALL		<a href="#">1181-23022</a>	2.16.840.1.113883.10.20.5.6.198
@extension	1..1	SHALL		<a href="#">1181-30563</a>	2015-04-01
participant	1..1	SHALL		<a href="#">1181-23023</a>	
@typeCode	1..1	SHALL		<a href="#">1181-23024</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">1181-23025</a>	
@classCode	1..1	SHALL		<a href="#">1181-23026</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC
participant	1..1	SHALL		<a href="#">1181-23030</a>	
@typeCode	1..1	SHALL		<a href="#">1181-23031</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM
participantRole	1..1	SHALL		<a href="#">1181-23032</a>	
@classCode	0..1	MAY		<a href="#">1181-23033</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
code	1..1	SHALL		<a href="#">1181-23034</a>	urn:oid:2.16.840.1.114222.4.11.3360 (NHSNAntimicrobialAgentAURPCode)
entryRelationship	1..1	SHALL		<a href="#">1181-23036</a>	
@typeCode	1..1	SHALL		<a href="#">1181-23037</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">1181-23038</a>	<a href="#">Summary Data Observation (AU/AR) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01)</a>
entryRelationship	4..4	SHALL		<a href="#">1181-23040</a>	
@typeCode	1..1	SHALL		<a href="#">1181-</a>	urn:oid:2.16.840.1.113883.5.1

XPath	Card.	Verb	Data Type	CONF#	Value
				<a href="#">23041</a>	002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">1181-23042</a>	<a href="#">Summary Data Observation (AUP) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.194</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ENC"** Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1181-23019).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1181-23020).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1181-23021) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.5.6.198"** (CONF:1181-23022).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-04-01"** (CONF:1181-30563).
4. **SHALL** contain exactly one [1..1] **participant** (CONF:1181-23023) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="LOC"** Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1181-23024).
  - b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:1181-23025).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode="SDLOC"** Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:1181-23026).

The value of **@root** must be the NHSN assigned Facility OID.

The value of **@extension** must be a value registered with NHSN.

- ii. If recording data from an in-facility location, the participantRole element **SHALL** contain an id element with both **@root** and **@extension**, and a code element where the value is selected from ValueSet 2.16.840.1.113883.13.19NHSNHealthcareServiceLocationCode **DYNAMIC**, recording the type of location (CONF:1181-23027).

The value of **@root** must be the NHSN assigned Facility OID.

- iii. Or, if recording data from the whole facility, the participantRole element **SHALL** contain an id element with **@root** (CONF:1181-23028).

The value of **@root** must be the NHSN assigned Facility OID.

- iv. Or, if recording data from a specialized subset of a facility, the participantRole element **SHALL** contain a code element where the value is selected from ValueSet 2.16.840.1.113883.13.19 NHSNHealthcareServiceLocationCode **DYNAMIC**, recording the type of location, and a scopingEntity element where the value of **@classCode** is "PLC" and id/**@root** is present (CONF:1181-23029).

5. **SHALL** contain exactly one [1..1] **participant** (CONF:1181-23030) such that it



- a. **SHALL** contain exactly one [1..1] **@typeCode="CSM"** Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:1181-23031).
- b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:1181-23032).
  - i. This participantRole **MAY** contain zero or one [0..1] **@classCode="MANU"** (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:1181-23033).
  - ii. This participantRole **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNAntimicrobialAgentAURPCode](#) urn:oid:2.16.840.1.114222.4.11.3360 **DYNAMIC** (CONF:1181-23034).
- 6. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:1181-23036) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1181-23037).
  - b. **SHALL** contain exactly one [1..1] [Summary Data Observation \(AU/AR\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01) (CONF:1181-23038).
  - c. This Summary Data Observation (AU/AR) records Number of Therapy Days for the antimicrobial (this is not a simple total of the stratified data; consult the NHSN protocol for the calculation) (CONF:1181-23039).
- 7. **SHALL** contain [4..4] **entryRelationship** (CONF:1181-23040) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1181-23041).
  - b. **SHALL** contain exactly one [1..1] [Summary Data Observation \(AUP\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.194) (CONF:1181-23042).
  - c. These Summary Data Observation (AUP) elements record Number of Therapy Days for the antimicrobial stratified by route of actual administration (four observations, one for each route) (CONF:1181-23043).

**Table 520: NHSNAntimicrobialAgentAURPCode**

Value Set: NHSNAntimicrobialAgentAURPCode urn:oid:2.16.840.1.114222.4.11.3360 (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the antimicrobial agent.),(Data Element Scope: An entity code representing the antimicrobial agent for which susceptibilities are reported against a certain pathogen.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3360/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3360/expansion</a>			
Code	Code System	Code System OID	Print Name
1009148	RxNorm	urn:oid:2.16.840.1.113883.6.88	ampicillin / sulbactam
10109	RxNorm	urn:oid:2.16.840.1.113883.6.88	streptomycin
10207	RxNorm	urn:oid:2.16.840.1.113883.6.88	sulfisoxazole
10395	RxNorm	urn:oid:2.16.840.1.113883.6.88	tetracycline
1040005	RxNorm	urn:oid:2.16.840.1.113883.6.88	ceftaroline
10591	RxNorm	urn:oid:2.16.840.1.113883.6.88	ticarcillin
10612	RxNorm	urn:oid:2.16.840.1.113883.6.88	tinidazole
10627	RxNorm	urn:oid:2.16.840.1.113883.6.88	tobramycin
10829	RxNorm	urn:oid:2.16.840.1.113883.6.88	trimethoprim
10831	RxNorm	urn:oid:2.16.840.1.113883.6.88	sulfamethoxazole / trimethoprim
...			

**Figure 193: Summary Encounter (AUP) (V2) Example**

```
<!-- encounter reporting data for one antimicrobial -->
<encounter classCode="ENC" moodCode="EVN">
  <!-- Summary Encounter (AUP) (V2) templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.198"
    extension="2015-04-01"/>
  <!-- the location ID and type -->
  <participant typeCode="LOC">
    <participantRole classCode="SDLOC">
      <id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="9W" />
      <code codeSystem="2.16.840.1.113883.6.259"
        codeSystemName="HL7 Healthcare Service Location Code"
        code="1029-8"
        displayName="Medical/Surgical Critical Care" />
    </participantRole>
  </participant>
  <!-- the antimicrobial agent reported -->
  <participant typeCode="CSM">
    <participantRole classCode="MANU">
      <code codeSystem="2.16.840.1.113883.6.88"
        codeSystemName="RxNorm"
        code="7980"
        displayName="Penicillin G"/>
    </participantRole>
  </participant>
  <!-- first of five data observations -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Summary Data Observation (AU/AR) templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.229"
        extension="2015-04-01"/>
      <code codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        code="2524-7"
        displayName="Number of Therapy Days"/>
      <statusCode code="completed"/>
      <value xsi:type="PQ" unit="d" value="36"/>
      <!-- use this when recording the four stratified data
      <methodCode codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED CT"
        code="47625008"
        displayName="Intravenous route" />
      -->
    </observation>
  </entryRelationship>
  <!-- ... four more observations here -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Summary Data Observation (AUP) templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.194"/>
      ...
    </observation>
  </entryRelationship>
</encounter>
<!-- end of encounter for this antimicrobial -->
```

### 3.133Summary Encounter (HP-FLU)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.241:2017-04-01  
(closed)]

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**Table 521: Summary Encounter (HP-FLU) Contexts**

Contained By:	Contains:
<a href="#">Summary Data Section (HP-FLU)</a> (required)	<a href="#">Summary Data Observation</a> (required)

A Summary Encounter records a set of summary data, usually for a population such as the patients in a ward for a specified period. The NHSN protocol defines which data to record for each type of summary report. For an HP-FLU Summary report, each datum is recorded as a Summary Data Observation. The data requirements at time of publication are shown in a table under the Summary Data Observation template, above.

In an HP-FLU Report, the data are stratified by healthcare personnel (HCP) type. A participant is provided to record the HCP type. Represent each HCP type with a separate Summary Encounter (HP-FLU).

**Table 522: Summary Encounter (HP-FLU) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.241:2017-04-01)					
@classCode	1..1	SHALL		<a href="#">3311-32</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">3311-33</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">3311-26</a>	
@root	1..1	SHALL		<a href="#">3311-34</a>	2.16.840.1.113883.10.20.5.6.241
@extension	1..1	SHALL		<a href="#">3311-44</a>	2017-04-01
participant	1..1	SHALL		<a href="#">3311-29</a>	
@typeCode	1..1	SHALL		<a href="#">3311-40</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = SBJ
participantRole	1..1	SHALL		<a href="#">3311-30</a>	
@classCode	1..1	SHALL		<a href="#">3311-41</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = PART
code	1..1	SHALL		<a href="#">3311-42</a>	urn:oid:2.16.840.1.113883.10.20.5.9.6 (HealthcarePersonnelType)
entryRelationship	1..*	SHALL		<a href="#">3311-25</a>	
@typeCode	1..1	SHALL		<a href="#">3311-43</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">3311-31</a>	<a href="#">Summary Data Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3311-32).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3311-33).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3311-26) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.241" (CONF:3311-34).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2017-04-01" (CONF:3311-44).
4. **SHALL** contain exactly one [1..1] **participant** (CONF:3311-29) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="SBJ" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3311-40).
  - b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:3311-30).

- i. This participantRole **SHALL** contain exactly one [1..1] @classCode="PART" (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3311-41).
  - ii. This participantRole **SHALL** contain exactly one [1..1] code, which **SHALL** be selected from ValueSet [HealthcarePersonnelType](#) urn:oid:2.16.840.1.113883.10.20.5.9.6 **DYNAMIC** (CONF:3311-42).
5. **SHALL** contain at least one [1..\*] entryRelationship (CONF:3311-25).
  - a. Such entryRelationships **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:3311-43).
  - b. Such entryRelationships **SHALL** contain exactly one [1..1] [Summary Data Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185) (CONF:3311-31).

**Table 523: HealthcarePersonnelType**

Value Set: HealthcarePersonnelType urn:oid:2.16.840.1.113883.10.20.5.9.6 (Clinical Focus: NHSN surveillance reporting: monthly reporting denominators for healthcare personnel influenza vaccination (HP-FLU), type of healthcare personnel that received influenza vaccination),(Data Element Scope: A code identifying the type of healthcare personnel.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.6/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.6/expansion</a>			
Code	Code System	Code System OID	Print Name
2366-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Employees (staff on facility payroll)
2367-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Licensed independent practitioners: physicians, advanced practice nurses, and physician assistants
2368-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Adult students or trainees and volunteers
2369-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Other contract personnel

**Figure 194: Summary Encounter (HP-FLU) Example**

```
<encounter classCode="ENC" moodCode="EVN">
  <!-- [HAI R3D2] Summary Encounter (HP-FLU) -->
  <templateId root="2.16.840.1.113883.10.20.5.6.241" extension="2017-04-01" />
  <!-- This encounter reports on a subset of the total group -->
  <participant typeCode="SBJ" contextControlCode="OP">
    <participantRole classCode="PART">
      <code codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        code="2366-3"
        displayName="Employees (staff on facility payroll)" />
    </participantRole>
  </participant>

  <!-- This summary observation reports the number of HCP
    who worked at the facility in the flu season -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Summary Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.185" />
      ...
    </observation>
  </entryRelationship>

  <!-- Each of the following summary observations report the
    number of HCP in that vaccination category -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Summary Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.185" />
      ...
    </observation>
  </entryRelationship>
  ...
</encounter>
```

### 3.134Summary Encounter (HV) (V2)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.234:2016-08-01 (closed)]

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**Table 524: Summary Encounter (HV) (V2) Contexts**

Contained By:	Contains:
<a href="#">Summary Data Section (HV) (V2)</a> (required)	<a href="#">Summary Data Observation (HV)</a> (required) <a href="#">Facility Transfuses Blood Products Treated with Pathogen Reduction Technology Observation (V2)</a> (required) <a href="#">Blood Product Usage Summary Observation (V2)</a> (required) <a href="#">Pathogen Reduced Apheresis Platelet Usage Summary Observation</a> (optional)

A Summary Encounter records a set of summary data, usually for a population such as the patients in a ward in a specified period. The NHSN protocol defines which data to record for each type of summary report.

For a Hemovigilance Summary Report, each datum is recorded as a Summary Data Observation (HV). The data requirements at time of publication are shown in a table under the Summary Data Observation (HV) template, above.

The Summary Encounter (HV) includes a Blood Product Usage Summary Observation for each type of blood product being reported and, conditionally (if the facility transfused pathogen reduced apheresis platelets), a Pathogen Reduced Apheresis Platelet Usage Summary Observation for each type of pathogen reduced apheresis platelet being reported.

A participant element records the location to which the data pertains. The location id has the form <id root="..." extension="..." /> with an extension of 'FACWIDEIN' representing the whole facility.



**Table 525: Summary Encounter (HV) (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.234:2016-08-01)					
@classCode	1..1	SHALL		<a href="#">3247-30669</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">3247-30670</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">3247-30653</a>	
@root	1..1	SHALL		<a href="#">3247-30660</a>	2.16.840.1.113883.10.20.5.6.234
@extension	1..1	SHALL		<a href="#">3247-30661</a>	2016-08-01
participant	1..1	SHALL		<a href="#">3247-30654</a>	
@typeCode	1..1	SHALL		<a href="#">3247-30668</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">3247-30655</a>	
@classCode	1..1	SHALL		<a href="#">3247-30667</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC
id	1..1	SHALL		<a href="#">3247-30656</a>	
@root	1..1	SHALL		<a href="#">3247-30662</a>	
@extension	1..1	SHALL		<a href="#">3247-30663</a>	FACWIDEIN
code	1..1	SHALL		<a href="#">3247-30657</a>	urn:oid:2.16.840.1.113883.6.259 (HSLOC)
@code	1..1	SHALL		<a href="#">3247-30664</a>	1250-0
@codeSystem	1..1	SHALL		<a href="#">3247-30665</a>	2.16.840.1.113883.6.259
@displayName	1..1	SHOULD		<a href="#">3247-30666</a>	Facility Wide Inpatient
entryRelationship	1..*	SHALL		<a href="#">3247-30652</a>	
@typeCode	1..1	SHALL		<a href="#">3247-30659</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">3247-30658</a>	<a href="#">Facility Transfuses Blood Products Treated with Pathogen Reduction Technology Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1</a>

XPath	Card.	Verb	Data Type	CONF#	Value
					<a href="#">0.20.5.6.236:2016-08-01</a>
entryRelationship	1..*	SHALL		<a href="#">3247-30733</a>	
@typeCode	1..1	SHALL		<a href="#">3247-30734</a>	COMP
observation	1..1	SHALL		<a href="#">3247-30735</a>	<a href="#">Blood Product Usage Summary Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.5.6.237:2016-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">3247-30792</a>	
observation	1..1	SHALL		<a href="#">3247-30793</a>	<a href="#">Pathogen Reduced Apheresis Platelet Usage Summary Observation (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.5.6.240:2016-08-01)</a>
entryRelationship	1..*	SHALL		<a href="#">3247-30730</a>	
@typeCode	1..1	SHALL		<a href="#">3247-30731</a>	COMP
observation	1..1	SHALL		<a href="#">3247-30732</a>	<a href="#">Summary Data Observation (HV) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.5.6.235:2015-10-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ENC"** Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3247-30669).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3247-30670).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3247-30653) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.5.6.234"** (CONF:3247-30660).
  - b. **SHALL** contain exactly one [1..1] **@extension="2016-08-01"** (CONF:3247-30661).
4. **SHALL** contain exactly one [1..1] **participant** (CONF:3247-30654) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="LOC"** Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:3247-30668).
  - b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:3247-30655).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode="SDLOC"** Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:3247-30667).
    - ii. This participantRole **SHALL** contain exactly one [1..1] **id** (CONF:3247-30656).

The value of **@root** must be the NHSN assigned Facility OID.

1. This id **SHALL** contain exactly one [1..1] @root (CONF:3247-30662).  
The value of @extension must be a value registered with NHSN.
2. This id **SHALL** contain exactly one [1..1] @extension="FACWIDEIN" (CONF:3247-30663).
- iii. This participantRole **SHALL** contain exactly one [1..1] code (CodeSystem: HSLOC urn:oid:2.16.840.1.113883.6.259 **DYNAMIC**) (CONF:3247-30657).
  1. This code **SHALL** contain exactly one [1..1] @code="1250-0" (CONF:3247-30664).
  2. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.259" (CONF:3247-30665).
  3. This code **SHOULD** contain exactly one [1..1] @displayName="Facility Wide Inpatient" (CONF:3247-30666).
5. **SHALL** contain at least one [1..\*] entryRelationship (CONF:3247-30652) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:3247-30659).
  - b. **SHALL** contain exactly one [1..1] [Facility Transfuses Blood Products Treated with Pathogen Reduction Technology Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.236:2016-08-01) (CONF:3247-30658).

There shall be one Blood Product Usage Summary Observation entryRelationship for each value in the value set NHSN Summary Blood Product Usage (urn:oid:2.16.840.1.114222.4.11.7353)

6. **SHALL** contain at least one [1..\*] entryRelationship (CONF:3247-30733) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CONF:3247-30734).
  - b. **SHALL** contain exactly one [1..1] [Blood Product Usage Summary Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.237:2016-08-01) (CONF:3247-30735).

If the facility transfused pathogen reduced apheresis platelets (i.e. the apheresis platelet total for any of codes 3514-7, 3515-4, 3516-2, 3517-0, 3518-8, or 3519-6 is > 0) then there **SHALL** be exactly 12 Pathogen Reduced Apheresis Platelet Usage Summary Observation entryRelationships (one for each value in the value set NHSN Pathogen Reduced Apheresis Platelet Usage (urn:oid:2.16.840.1.113883.10.20.5.9.5))

7. **MAY** contain zero or more [0..\*] entryRelationship (CONF:3247-30792) such that it
  - a. **SHALL** contain exactly one [1..1] [Pathogen Reduced Apheresis Platelet Usage Summary Observation](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.240:2016-08-01) (CONF:3247-30793).
8. **SHALL** contain at least one [1..\*] entryRelationship (CONF:3247-30730) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CONF:3247-30731).

- b. **SHALL** contain exactly one [1..1] [Summary Data Observation \(HV\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.235:2015-10-01) (CONF:3247-30732).

**Figure 195: Summary Encounter (HV) (V2) Example**

```
<encounter classCode="ENC" moodCode="EVN">
  <!-- Summary Encounter (HV) (V2) -->
  <templateId root="2.16.840.1.113883.10.20.5.6.234" extension="2016-08-01" />
  <!-- the location ID and type -->
  <participant typeCode="LOC">
    <participantRole classCode="SDLOC">
      <id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="FACWIDEIN" />
      <code codeSystem="2.16.840.1.113883.6.259" codeSystemName="HL7
HealthCareServiceLocation" code="1250-0" displayName="FACWIDEIN" />
    </participantRole>
  </participant>
  <!-- Blood product summaries
  There SHALL be exactly 102 Blood Product Usage Summary Observation
  entryRelationships (one for each value in the value set NHSN Summary
  Blood Product Usage (urn:oid:2.16.840.1.114222.4.11.7353))
  -->

  <!-- Total number of units transfused - Whole blood -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- [HAI] Blood Product Usage Summary Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.237" extension="2015-10-01" />
      ...
    </observation>
  </entryRelationship>
  <!-- Total number of aliquots transfused - Whole blood -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- [HAI] Blood Product Usage Summary Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.237" extension="2015-10-01" />
      ...
    </observation>
  </entryRelationship>
  <!-- Total number of Discards - Whole blood -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- [HAI] Blood Product Usage Summary Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.237" extension="2015-10-01" />
      ...
    </observation>
  </entryRelationship>
  ...
  <entryRelationship typeCode="COMP">
    <!-- Facility Transfuses Blood Products Treated with Pathogen Reduction Technology
    Observation -->
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- [HAI R3D1.1] Facility Transfuses Blood Products Treated with
      Pathogen Reduction Technology Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.236" extension="2016-08-01" />
      ...
    </observation>
  </entryRelationship>
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Summary Data Observation (HV) -->
```

```
<templateId root="2.16.840.1.113883.10.20.5.6.235" extension="2015-10-01" />
...
</observation>
</entryRelationship>
...
</encounter>
```

3.135Summary Encounter (NICU)

[encounter: identifier urn:oid:2.16.840.1.113883.10.20.5.6.191 (closed)]

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Table 526: Summary Encounter (NICU) Contexts

Contained By:	Contains:
<a href="#">Summary Data Section (NICU) (V2)</a> (required)	<a href="#">Summary Data Observation</a> (required)

A Summary Encounter records a set of summary data, usually for a population such as the patients in a ward in a specified period. The NHSN protocol defines which data to record for each type of summary report. For a NICU Summary report, each datum is recorded as a Summary Data Observation. The data requirements at time of publication are shown in a table under the Summary Data Observation template, above.

In a NICU Report, the data are stratified by birthweight. A second participant is provided to record the participant subgroup. Represent each group with a separate Summary Encounter.

**Table 527: Summary Encounter (NICU) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
encounter (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.191)					
@classCode	1..1	SHALL		<a href="#">86-22817</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">86-22818</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-22819</a>	
@root	1..1	SHALL		<a href="#">86-22820</a>	2.16.840.1.113883.10.20.5.6.191
participant	1..1	SHALL		<a href="#">86-22821</a>	
@typeCode	1..1	SHALL		<a href="#">86-22822</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">86-22823</a>	
@classCode	1..1	SHALL		<a href="#">86-22824</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC
participant	1..1	SHALL		<a href="#">86-22828</a>	
@typeCode	1..1	SHALL		<a href="#">86-22829</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = SBJ
participantRole	1..1	SHALL		<a href="#">86-22830</a>	
@classCode	1..1	SHALL		<a href="#">86-22831</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PRS
code	1..1	SHALL		<a href="#">86-22832</a>	urn:oid:2.16.840.1.114222.4.11.3234 (NHSNPopulationCategoryCode)
entryRelationship	1..*	SHALL		<a href="#">86-22834</a>	
@typeCode	1..1	SHALL		<a href="#">86-22835</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">86-22836</a>	<a href="#">Summary Data Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185)</a>

1. **SHALL** contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-22817).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-22818).
3. **SHALL** contain exactly one [1..1] templateId (CONF:86-22819) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.191" (CONF:86-22820).
4. **SHALL** contain exactly one [1..1] participant (CONF:86-22821) such that it

- a. **SHALL** contain exactly one [1..1] **@typeCode="LOC"** Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:86-22822).
- b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:86-22823).
  - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode="SDLOC"** Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:86-22824).

The value of @root must be the NHSN assigned Facility OID.

The value of @extension must be a value registered with NHSN.

- ii. If recording data from an in-facility location, the participantRole element **SHALL** contain an id element with both @root and @extension, and a code element where the value is selected from ValueSet NHSNHealthcareServiceLocationCode 2.16.840.1.113883.13.19 **DYNAMIC**, recording the type of location (CONF:86-22825).

The value of @root must be the NHSN assigned Facility OID.

- iii. Or, if recording data from the whole facility, the participantRole element **SHALL** contain an id element with @root (CONF:86-22826).

The value of @root must be the NHSN assigned Facility OID.

- iv. Or, if recording data from a specialized subset of a facility, the participantRole element **SHALL** contain a code element where the value is selected from ValueSet NHSNHealthcareServiceLocationCode 2.16.840.1.113883.13.19 **DYNAMIC**, recording the type of location, and a scopingEntity element where the value of @classCode is "PLC" and id/@root is present (CONF:86-22827).

5. **SHALL** contain exactly one [1..1] **participant** (CONF:86-22828) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="SBJ"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:86-22829).
  - b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:86-22830).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode="PRS"** (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:86-22831).
    - ii. This participantRole **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [NHSNPopulationCategoryCode](#) urn:oid:2.16.840.1.114222.4.11.3234 **DYNAMIC** (CONF:86-22832).
6. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:86-22834).
  - a. Such entryRelationships **SHALL** contain exactly one [1..1] **@typeCode="COMP"** Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:86-22835).
  - b. Such entryRelationships **SHALL** contain exactly one [1..1] [Summary Data Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185) (CONF:86-22836).



**Table 528: NHSNPopulationCategoryCode**

Value Set: NHSNPopulationCategoryCode urn:oid:2.16.840.1.114222.4.11.3234

(Clinical Focus: NHSN surveillance reporting: categories of birth weights and gestational ages used with denominators for neonatal intensive care unit (NICU)),(Data Element Scope: A code describing the population category associated with the data being reported.),(Inclusion Criteria: ),(Exclusion Criteria: )

This value set was imported on 10/14/2020 with a version of Latest.

Value Set Source:

<https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3234/expansion>

Code	Code System	Code System OID	Print Name
1334-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Extremely preterm (<28 weeks)
1335-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Very preterm (28 to <32 weeks)
1336-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Moderate to late preterm (32 to <37 weeks)
1337-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Term (>=37 weeks)
3300-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Birth weight under 750 grams
3301-9	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Birth weight 751-1000 grams
3302-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Birth weight 1001-1500 grams
3303-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Birth weight 1501-2500 grams
3304-3	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Birth weight over 2500 grams

**Figure 196: Summary Encounter (NICU) Example**

```
<encounter classCode="ENC" moodCode="EVN">
  <!--Summary Encounter (NICU) templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.191" />
  <!-- the location id and type -->
  <participant typeCode="LOC">
    <participantRole classCode="SDLOC">
      <id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="9W" />
      <code codeSystem="2.16.840.1.113883.6.259"
        codeSystemName="HL7 HealthcareServiceLocation"
        code="1029-8"
        displayName="Medical/Surgical Critical Care" />
    </participantRole>
  </participant>

  <!-- This encounter reports on a subset of the total group -->
  <participant typeCode="SBJ" contextControlCode="OP">
    <participantRole classCode="PRS">
      <code codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        code="3300-1"
        displayName="Birthweight under 750g" />
    </participantRole>
  </participant>

  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!--Summary Data Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.185" />
      <code codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        code="1851-5"
        displayName="Patient Days" />
      <statusCode code="completed" />
      <value xsi:type="PQ" unit="d" value="23" />
    </observation>
  </entryRelationship>

  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!--Summary Data Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.185" />
      <code codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        code="1852-3"
        displayName="Ventilator Days" />
      <statusCode code="completed" />
      <value xsi:type="PQ" unit="d" value="5" />
    </observation>
  </entryRelationship>

  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!--Summary Data Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.185" />
      <code codeSystem="2.16.840.1.113883.6.277"
```

```

        codeSystemName="cdcNHSN"
        code="1854-9"
        displayName="Number of central line days including umbilical catheter" />
        <statusCode code="completed" />
        <value xsi:type="PQ" unit="d" value="5" />
    </observation>
</entryRelationship>

<entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
        <!--Summary Data Observation templateId -->
        <templateId root="2.16.840.1.113883.10.20.5.6.185" />
        <code codeSystem="2.16.840.1.113883.6.277"
            codeSystemName="cdcNHSN"
            code="1854-9"
            displayName="Central Line Days including umbilical catheter" />
        <statusCode code="completed" />
        <value xsi:type="PQ" unit="d" value="5" />
    </observation>
</entryRelationship>
</encounter>

```

### 3.136 Summary Encounter (POM)

[encounter: identifier urn:oid:2.16.840.1.113883.10.20.5.6.193 (closed)]

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**Table 529: Summary Encounter (POM) Contexts**

Contained By:	Contains:
<a href="#">Summary Data Section (POM) (V3)</a> (required)	<a href="#">Summary Data Observation (POM)</a> (required)

A Summary Encounter records a set of summary data, usually for a population such as the patients in a ward in a specified period. The NHSN protocol defines which data to record for each type of summary report. The Summary Encounter (POM) contains one or more Summary Data Observations (POM). The data requirements at time of publication are shown in a table under the Summary Data Observation template, above.

The POM Report records summary data for a location during a specified period. It can be submitted at the facility-wide level or at the unit level.

- In either case, the data reported is Number of Total Facility Patient Days and Number of Total Facility Admissions, or Number of Total Facility Encounters (as appropriate for an inpatient location or an outpatient location).
- In a facility-level report, the Number of MDRO Patient Days and Number of MDRO Admissions, or Number of MDRO Encounters (as appropriate for an inpatient location or an outpatient location) is recorded.
- In a facility-level report, if the facility includes reporting for C.difficile at the facility-wide level in its monthly plan, data adjusted for C.difficile reporting are required; see the NHSN protocol for definitions and calculations.

**Table 530: Summary Encounter (POM) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
encounter (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.193)					
@classCode	1..1	SHALL		<a href="#">86-22866</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">86-22867</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-22868</a>	
@root	1..1	SHALL		<a href="#">86-22869</a>	2.16.840.1.113883.10.20.5.6.193
participant	1..1	SHALL		<a href="#">86-22870</a>	
@typeCode	1..1	SHALL		<a href="#">86-22871</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">86-22872</a>	
@classCode	1..1	SHALL		<a href="#">86-22873</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC
entryRelationship	1..*	SHALL		<a href="#">86-22877</a>	
@typeCode	1..1	SHALL		<a href="#">86-22878</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">86-22879</a>	<a href="#">Summary Data Observation (POM) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.192)</a>

1. **SHALL** contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-22866).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-22867).
3. **SHALL** contain exactly one [1..1] templateId (CONF:86-22868) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.193" (CONF:86-22869).
4. **SHALL** contain exactly one [1..1] participant (CONF:86-22870) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:86-22871).
  - b. **SHALL** contain exactly one [1..1] participantRole (CONF:86-22872).
    - i. This participantRole **SHALL** contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:86-22873).

The value of @root must be the NHSN assigned Facility OID.

The value of @extension must be a value registered with NHSN.

- ii. If recording data from an in-facility location, the participantRole element **SHALL** contain an id element with both @root and @extension, and a code element where the value is selected from ValueSet NHSNHealthcareServiceLocationCode 2.16.840.1.113883.13.19 **DYNAMIC**, recording the type of location (CONF:86-22874).

The value of @root must be the NHSN assigned Facility OID.

- iii. Or, if recording data from the whole facility, the participantRole element **SHALL** contain an id element with @root (CONF:86-22875).

The value of @root must be the NHSN assigned Facility OID.

- iv. Or, if recording data from a specialized subset of a facility, the participantRole element **SHALL** contain a code element where the value is selected from ValueSet NHSNHealthcareServiceLocationCode 2.16.840.1.113883.13.19 **DYNAMIC**, recording the type of location, and a scopingEntity element where the value of @classCode is "PLC" and id/@root is present (CONF:86-22876).

5. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:86-22877).

- a. Such entryRelationships **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:86-22878).
- b. Such entryRelationships **SHALL** contain exactly one [1..1] [Summary Data Observation \(POM\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.192) (CONF:86-22879).

**Figure 197: Summary Encounter (POM) Example**

```
<encounter classCode="ENC" moodCode="EVN">
  <!-- Summary Encounter (POM) -->
  <templateId root="2.16.840.1.113883.10.20.5.6.193" />
  <!-- the location id and type -->
  <participant typeCode="LOC">
    <participantRole classCode="SDLOC">
      <id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="9W" />
      <code codeSystem="2.16.840.1.113883.6.259"
        codeSystemName="HL7 HealthcareServiceLocation"
        code="1029-8"
        displayName="Medical/Surgical Critical Care" />
    </participantRole>
  </participant>

  <!-- Number of Total Facility Patient days -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Summary Data Observation POM -->
      <templateId root="2.16.840.1.113883.10.20.5.6.192" />
      ...
    </observation>
  </entryRelationship>

  <!-- Number of Total Facility Admissions -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Summary Data Observation POM -->
      <templateId root="2.16.840.1.113883.10.20.5.6.192" />
      ...
    </observation>
  </entryRelationship>

  <!-- If the report is facility-wide, inpatient, NHSN requires additional
  observations here, constructed as above but with different codes:
  1827-5 Number of MDRO Patient Days
  1828-3 Number of MDRO Admissions
  1829 Number of MDRO Encounters
  1830-9 Number of Patient Days as adjusted for C.Diff reporting
  1831-7 Number of Admissions as adjusted for C.Diff reporting
  If the report is not facility-wide, NHSN will collect but does not require the
  surveillance details shown below. -->

  <!-- Number hand hygiene indicated -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Summary Data Observation POM -->
      <templateId root="2.16.840.1.113883.10.20.5.6.192" />
      ...
    </observation>
  </entryRelationship>

  <!-- Number hand hygiene performed -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Summary Data Observation POM -->
```

```

        <templateId root="2.16.840.1.113883.10.20.5.6.192" />
        ...
    </observation>
</entryRelationship>

<!-- Number gown and gloves indicated -->
<entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
        <!-- Summary Data Observation POM -->
        ...
    </observation>
</entryRelationship>

<!-- Number gown and gloves used -->
<entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
        <!-- Summary Data Observation POM -->
        <templateId root="2.16.840.1.113883.10.20.5.6.192" />
        ...
    </observation>
</entryRelationship>

<!-- MRSA was monitored -->
<entryRelationship typeCode="COMP" negationInd="false">
    <observation classCode="OBS" moodCode="EVN">
        <!-- Summary Data Observation POM -->
        <templateId root="2.16.840.1.113883.10.20.5.6.192" />
        ...
    </observation>
</entryRelationship>
<!-- end of AST for MRSA data -->
</encounter>

```

### 3.137 Summary Encounter (VAT)

[encounter: identifier urn:oid:2.16.840.1.113883.10.20.5.6.196 (closed)]

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**Table 531: Summary Encounter (VAT) Contexts**

Contained By:	Contains:
<a href="#">Summary Data Section (VAT)</a> (required)	<a href="#">Summary Data Observation (VAT)</a> (required)

A Summary Encounter records a set of summary data, usually for a population such as the patients in a ward in a specified period. The NHSN protocol defines which data to record for each type of summary report. Each datum in a VAT Report is recorded as a Summary Data Observation (VAT). The data requirements at time of publication are shown in a table under the Summary Data Observation template, above.

A participant element records the location to which the data pertains. It has three parts: a location id, a location type code, and a scoping entity. The location id has the form <id root="..." extension="..."/> representing a location such as ward 9W, or <id root="..."/> representing the whole facility.

**Table 532: Summary Encounter (VAT) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
encounter (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.196)					
@classCode	1..1	SHALL		<a href="#">86-22951</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">86-22952</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-22953</a>	
@root	1..1	SHALL		<a href="#">86-22954</a>	2.16.840.1.113883.10.20.5.6.196
participant	1..1	SHALL		<a href="#">86-22955</a>	
@typeCode	1..1	SHALL		<a href="#">86-22956</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">86-22957</a>	
@classCode	1..1	SHALL		<a href="#">86-22958</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC
entryRelationship	1..*	SHALL		<a href="#">86-22962</a>	
@typeCode	1..1	SHALL		<a href="#">86-22963</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">86-22964</a>	<a href="#">Summary Data Observation (VAT) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.195)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ENC"** Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-22951).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-22952).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22953) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.5.6.196"** (CONF:86-22954).
4. **SHALL** contain exactly one [1..1] **participant** (CONF:86-22955) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="LOC"** Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:86-22956).
  - b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:86-22957).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode="SDLOC"** Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:86-22958).



The value of @root must be the NHSN assigned Facility OID.

The value of @extension must be a value registered with NHSN.

- ii. If recording data from an in-facility location, the participantRole element **SHALL** contain an id element with both @root and @extension, and a code element where the value is selected from ValueSet NHSNHealthcareServiceLocationCode 2.16.840.1.113883.13.19 **DYNAMIC**, recording the type of location (CONF:86-22959).

The value of @root must be the NHSN assigned Facility OID.

- iii. Or, if recording data from the whole facility, the participantRole element **SHALL** contain an id element with @root (CONF:86-22960).

The value of @root must be the NHSN assigned Facility OID.

- iv. Or, if recording data from a specialized subset of a facility, the participantRole element **SHALL** contain a code element where the value is selected from ValueSet NHSNHealthcareServiceLocationCode 2.16.840.1.113883.13.19 **DYNAMIC**, recording the type of location, and a scopingEntity element where the value of @classCode is "PLC" and id/@root is present (CONF:86-22961).

5. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:86-22962).

- a. Such entryRelationships **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:86-22963).
- b. Such entryRelationships **SHALL** contain exactly one [1..1] [Summary Data Observation \(VAT\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.195) (CONF:86-22964).

**Figure 198: Summary Encounter (VAT) Example**

```
<encounter classCode="ENC" moodCode="EVN">
  <!-- Summary Encounter (VAT) template -->
  <templateId root="2.16.840.1.113883.10.20.5.6.196" />
  <!-- the in-facility location ID and type -->
  <participant typeCode="LOC">
    <participantRole classCode="SDLOC">
      <!-- the facility OID scopes the in-facility location ID -->
      <id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="9W" />
      <code codeSystem="2.16.840.1.113883.6.259"
        codeSystemName="HL7 HealthcareServiceLocation"
        code="1153-6"
        displayName="Outpatient Hemodialysis Clinic" />
    </participantRole>
  </participant>
  <!-- Number of Chronic Hemodialysis Patients, vascular access type is fistula -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Summary Data Observation (VAT) template -->
      <templateId root="2.16.840.1.113883.10.20.5.6.195" />
      ...
    </observation>
  </entryRelationship>
  ...
</encounter>
```

### 3.138 Summary Encounter Patient Presence (AUP) (V2)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.197:2015-04-01  
(closed)]

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Release 2 - US Realm

**Table 533: Summary Encounter Patient Presence (AUP) (V2) Contexts**

Contained By:	Contains:
<a href="#">Summary Data Section (AUP) (V2)</a> (required)	<a href="#">Summary Data Observation (AU/AR)</a> (required)

A Summary Encounter records a set of summary data, usually for a population such as the patients in a ward in a specified period. The NHSN protocol defines which data to record for each type of summary report. The Summary Encounter Patient Presence (AUP) contains one or more Summary Data Observations (AU/AR). The data requirements at time of publication are shown in a table under the Summary Data Observation (AU/AR) template, above.

NHSN reporting requires:

- If the reporting location is a single unit such as a ward, Number of Patient-Present Days, or
- If the encounter location is facility-wide rather than a single unit, Number of Admissions and Number of Patient-present Days.

**Table 534: Summary Encounter Patient Presence (AUP) (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.197:2015-04-01)					
@classCode	1..1	SHALL		<a href="#">1181-22995</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">1181-22996</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1181-22997</a>	
@root	1..1	SHALL		<a href="#">1181-22998</a>	2.16.840.1.113883.10.20.5.6.197
@extension	1..1	SHALL		<a href="#">1181-30562</a>	2015-04-01
participant	1..1	SHALL		<a href="#">1181-22999</a>	
@typeCode	1..1	SHALL		<a href="#">1181-23000</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">1181-23001</a>	
@classCode	1..1	SHALL		<a href="#">1181-23002</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC
entryRelationship	1..*	SHALL		<a href="#">1181-23006</a>	
@typeCode	1..1	SHALL		<a href="#">1181-23007</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">1181-23008</a>	<a href="#">Summary Data Observation (AU/AR) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01)</a>

1. **SHALL** contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1181-22995).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1181-22996).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1181-22997) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.197" (CONF:1181-22998).
  - b. **SHALL** contain exactly one [1..1] @extension="2015-04-01" (CONF:1181-30562).
4. **SHALL** contain exactly one [1..1] participant (CONF:1181-22999) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1181-23000).
  - b. **SHALL** contain exactly one [1..1] participantRole (CONF:1181-23001).

- i. This participantRole **SHALL** contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:1181-23002).

The value of @root must be the NHSN assigned Facility OID.

The value of @extension must be a value registered with NHSN.

- ii. If recording data from an in-facility location, the participantRole element **SHALL** contain an id element with both @root and @extension, and a code element where the value is selected from ValueSet 2.16.840.1.113883.13.19NHSNHealthcareServiceLocationCode **DYNAMIC**, recording the type of location (CONF:1181-23003).

The value of @root must be the NHSN assigned Facility OID.

- iii. Or, if recording data from the whole facility, the participantRole element **SHALL** contain an id element with @root (CONF:1181-23004).

The value of @root must be the NHSN assigned Facility OID.

- iv. Or, if recording data from a specialized subset of a facility, the participantRole element **SHALL** contain a code element where the value is selected from ValueSet 2.16.840.1.113883.13.19 NHSNHealthcareServiceLocationCode **DYNAMIC**, recording the type of location, and a scopingEntity element where the value of @classCode is "PLC" and id/@root is present (CONF:1181-23005).

5. **SHALL** contain at least one [1..\*] entryRelationship (CONF:1181-23006).

- a. Such entryRelationships **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1181-23007).
- b. Such entryRelationships **SHALL** contain exactly one [1..1] [Summary Data Observation \(AU/AR\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01) (CONF:1181-23008).

6. This Summary Encounter **SHALL** contain a Summary Data Observation (AU/AR) that records Number of Patient-present Days for the reporting location (CONF:1181-23011).

7. If the reporting location is facility-wide inpatient units, this Summary Encounter **SHALL** contain a second Summary Data Observation (AU/AR) that records Number of Admissions (CONF:1181-23012).

**Figure 199: Summary Encounter Patient Presence (AUP) (V2)**

```
<!-- encounter recording patient presence -->
<encounter classCode="ENC" moodCode="EVN">
  <!-- Summary Encounter Patient Presence (AUP) templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.197"
    extension="2015-04-01" />
  <!-- the location ID and type -->
  <participant typeCode="LOC">
    <participantRole classCode="SDLOC">
      <id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="9W" />
      <code codeSystem="2.16.840.1.113883.6.259"
        codeSystemName="HL7 Healthcare Service Location Code"
        code="1029-8"
        displayName="Medical/Surgical Critical Care" />
    </participantRole>
  </participant>
  <!-- report for a single unit: Number of Patient-present Days -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Summary Data Observation (AU/AP) templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.229"
        extension="2015-04-01" />
      ...
    </observation>
  </entryRelationship>
  <!-- if the reporting location is facility-wide inpatient units,
    a second observation recording Number of Admissions -->
</encounter>
```

### 3.139 Suspected Source Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.168 (closed)]

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Release 1 - US Realm

**Table 535: Suspected Source Observation Contexts**

Contained By:	Contains:
<a href="#">Positive Blood Culture Observation (V3)</a> (optional)	<a href="#">Imputability Observation</a> (required)

This observation records a suspected source of a finding.

This observation and its value set are used in an Evidence of Infection (Dialysis) Report. It could be generalized for broader use.

**Table 536: Suspected Source Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.168)					
@classCode	1..1	SHALL		<a href="#">86-21508</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-21509</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-21510</a>	false
templateId	1..1	SHALL		<a href="#">86-28287</a>	
@root	1..1	SHALL		<a href="#">86-28288</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-21528</a>	
@root	1..1	SHALL		<a href="#">86-21529</a>	2.16.840.1.113883.10.20.5.6.168
id	1..1	SHALL		<a href="#">86-21530</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22741</a>	NA
code	1..1	SHALL		<a href="#">86-21511</a>	
@code	1..1	SHALL		<a href="#">86-21512</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28356</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-21513</a>	
@code	1..1	SHALL		<a href="#">86-21514</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-21515</a>	
entryRelationship	1..1	SHALL		<a href="#">86-21519</a>	
@typeCode	1..1	SHALL		<a href="#">86-21520</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">86-21521</a>	<a href="#">Imputability Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.134)</a>
code	1..1	SHALL		<a href="#">86-21522</a>	
@code	1..1	SHALL	CD	<a href="#">86-21523</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2307-7
value	1..1	SHALL	CD	<a href="#">86-21524</a>	
@code	1..1	SHALL	CD	<a href="#">86-21525</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 60022001

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21508).

3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21509).
4. **SHALL** contain exactly one [1..1] **@negationInd**="false" (CONF:86-21510).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28287) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28288).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-21528) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.168" (CONF:86-21529).
7. **SHALL** contain exactly one [1..1] **id** (CONF:86-21530).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22741).
8. **SHALL** contain exactly one [1..1] **code** (CONF:86-21511).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:86-21512).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28356).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-21513).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-21514).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:86-21515).
  - a. In an Evidence of Infection (Dialysis) report, to represent the suspected source as a code, the value of **@code** **SHALL** be selected from ValueSet NHSNSuspectedSourceTypeCode 2.16.840.1.114222.4.11.6008 **DYNAMIC** (CONF:86-21516).
  - b. If the suspected source is not listed in Value Set 2.16.840.1.114222.4.11.6008 NHSNSuspectedSourceTypeCode, set the value of **@nullFlavor** to 'OTH' (CONF:86-21517).
  - c. If the suspected source is uncertain, set the value of **@nullFlavor** to "NI" (CONF:86-21518).
11. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:86-21519) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:86-21520).
  - b. **SHALL** contain exactly one [1..1] Imputability Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.134) (CONF:86-21521).
    - i. This observation **SHALL** contain exactly one [1..1] **code** (CONF:86-21522).
      1. This code **SHALL** contain exactly one [1..1] **@code**="2307-7" Imputability of positive blood culture to the suspected source (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277 **STATIC**) (CONF:86-21523).
    - ii. This observation **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:86-21524).

1. This value **SHALL** contain exactly one [1..1] @code="60022001"  
Possible (CodeSystem: SNOMED CT  
urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:86-21525).

**Table 537: NHSNSuspectedSourceTypeCode**

Value Set: NHSNSuspectedSourceTypeCode urn:oid:2.16.840.1.114222.4.11.6008 (Clinical Focus: NHSN surveillance reporting: suspected source of infection),(Data Element Scope: A coded observation value describing the suspected source of a finding.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6008/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6008/expansion</a>			
Code	Code System	Code System OID	Print Name
2303-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Contamination
2319-2	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Vascular access



**Figure 200: Suspected Source Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Suspected Source of Pathogen templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.168"/>
  <id nullFlavor="NA"/>
  <code code="ASSERTION"
    codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="2319-2"
    displayName="Vascular access"/>
  <!-- Imputability = possible (the "suspected" source) -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN" negationInd="false">
      <!-- C-CDA Problem Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
      <!-- HAI Imputability Observation -->
      <templateId root="2.16.840.1.113883.10.20.5.6.134"/>
      <id nullFlavor="NA"/>
      <code codeSystem="2.16.840.1.113883.6.277"
        codeSystemName="cdcNHSN"
        code="2307-7"
        displayName="Imputability of positive blood culture
          to the suspected source"/>
      <statusCode code="completed"/>
      <value xsi:type="CD"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED CT"
        code="60022001"
        displayName="Possible"/>
    </observation>
  </entryRelationship>
</observation>
```

### 3.140 Transient Patient Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.169 (closed)]

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**Table 538: Transient Patient Observation Contexts**

Contained By:	Contains:
<a href="#">Dialysis Patient Observation</a> (required)	

This observation records whether the service location submitting the report is the location where the patient is usually seen. It is used in the Evidence of Infection (Dialysis) Report.

When the service location is not the location where the patient is usually seen, set the value of @negationInd to false. When the service location is the location where the patient is usually seen, set the value of @negationInd to true.

**Table 539: Transient Patient Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.169)					
@classCode	1..1	SHALL		<a href="#">86-21451</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-21452</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-21453</a>	
templateId	1..1	SHALL		<a href="#">86-28289</a>	
@root	1..1	SHALL		<a href="#">86-28290</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-22035</a>	
@root	1..1	SHALL		<a href="#">86-22036</a>	2.16.840.1.113883.10.20.5.6.169
id	1..1	SHALL		<a href="#">86-22737</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22738</a>	NA
code	1..1	SHALL		<a href="#">86-21454</a>	
@code	1..1	SHALL		<a href="#">86-21455</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28391</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-21456</a>	
@code	1..1	SHALL		<a href="#">86-21457</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-21458</a>	
@code	1..1	SHALL		<a href="#">86-21459</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2304-4

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21451).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21452).
4. **SHALL** contain exactly one [1..1] @negationInd (CONF:86-21453).
5. **SHALL** contain exactly one [1..1] templateId (CONF:86-28289) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28290).
6. **SHALL** contain exactly one [1..1] templateId (CONF:86-22035) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.169" (CONF:86-22036).
7. **SHALL** contain exactly one [1..1] **id** (CONF:86-22737).
  - a. This **id** **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22738).
8. **SHALL** contain exactly one [1..1] **code** (CONF:86-21454).
  - a. This **code** **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:86-21455).
  - b. This **code** **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28391).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-21456).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-21457).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:86-21458).
  - a. This **value** **SHALL** contain exactly one [1..1] **@code**="2304-4" Transient Patient (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277 **STATIC**) (CONF:86-21459).

**Figure 201: Transient Patient Observation Example**

```

<!-- Transient Patient Observation -->
<!-- If the patient is a transient patient, not usually seen at the
      service location submitting the report, set @negationInd to "true". -->
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Transient Patient Observation templateId-->
  <templateId root="2.16.840.1.113883.10.20.5.6.169"/>
  <id nullFlavor="NA"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="2304-4"
    displayName="Transient patient"/>
</observation>

```

### 3.141 Trauma Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.170 (closed)]

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**Table 540: Trauma Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a Procedure Report</a> (required)	

This observation records whether the person had trauma. It is used in reporting the circumstances of a procedure.

If trauma was involved, set the value of @negationInd to false. If trauma was not involved, set the value of @negationInd to true.

**Table 541: Trauma Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.170)					
@classCode	1..1	SHALL		<a href="#">86-20922</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-20923</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-20924</a>	
templateId	1..*	SHALL		<a href="#">86-28291</a>	
@root	1..1	SHALL		<a href="#">86-28292</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..*	SHALL		<a href="#">86-20927</a>	
@root	1..1	SHALL		<a href="#">86-20928</a>	2.16.840.1.113883.10.20.5.6.170
id	1..1	SHALL		<a href="#">86-20929</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22735</a>	NA
code	1..1	SHALL		<a href="#">86-20930</a>	
@code	1..1	SHALL	CS	<a href="#">86-20931</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28392</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-20932</a>	
@code	1..1	SHALL		<a href="#">86-20933</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-20934</a>	
@code	1..1	SHALL		<a href="#">86-20936</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 417746004

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-20922).
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-20923).
4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:86-20924).
5. **SHALL** contain at least one [1..\*] **templateId** (CONF:86-28291) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.4"** (CONF:86-28292).
6. **SHALL** contain at least one [1..\*] **templateId** (CONF:86-20927) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.5.6.170"** (CONF:86-20928).
7. **SHALL** contain exactly one [1..1] **id** (CONF:86-20929).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor="NA"** (CONF:86-22735).
8. **SHALL** contain exactly one [1..1] **code** (CONF:86-20930).
  - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** Assertion (CONF:86-20931).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28392).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-20932).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-20933).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:86-20934).
  - a. This value **SHALL** contain exactly one [1..1] **@code="417746004"** Trauma (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:86-20936).

**Figure 202: Trauma Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Trauma Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.170"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    code="417746004"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED"
    displayName="Trauma"/>
</observation>
```

### 3.142Type of Antimicrobial Start Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.230:2015-10-01 (closed)]

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**Table 542: Type of Antimicrobial Start Observation Contexts**

Contained By:	Contains:
<a href="#">IV Antibiotic Start Clinical Statement (V4)</a> (optional)	

This observation records whether the antimicrobial start was a new outpatient start or a continuation of an inpatient course.

**Table 543: Type of Antimicrobial Start Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.230:2015-10-01)					
@classCode	1..1	SHALL		<a href="#">1202-30558</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1202-30559</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1202-30548</a>	
@root	1..1	SHALL		<a href="#">1202-30552</a>	2.16.840.1.113883.10.20.5.6.230
@extension	1..1	SHALL		<a href="#">1202-30553</a>	2015-10-01
code	1..1	SHALL		<a href="#">1202-30549</a>	
@code	1..1	SHALL		<a href="#">1202-30554</a>	2335-8
@codeSystem	1..1	SHALL		<a href="#">1202-30555</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
statusCode	1..1	SHALL		<a href="#">1202-30551</a>	
@code	1..1	SHALL		<a href="#">1202-30560</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">1202-30550</a>	
@code	1..1	SHALL		<a href="#">1202-30556</a>	urn:oid:2.16.840.1.114222.4.11.7338 (NHSNStartOrContinuation)

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1202-30558).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1202-30559).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1202-30548) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.230" (CONF:1202-30552).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2015-10-01" (CONF:1202-30553).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1202-30549).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="2335-8" New outpatient start or continuation of inpatient course (CONF:1202-30554).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1202-30555).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1202-30551).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1202-30560).
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:1202-30550).
  - a. This value **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [NHSNStartOrContinuation](#) urn:oid:2.16.840.1.114222.4.11.7338 **DYNAMIC** (CONF:1202-30556).

**Table 544: NHSNStartOrContinuation**

Value Set: NHSNStartOrContinuation urn:oid:2.16.840.1.114222.4.11.7338 (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the type of antimicrobial start.),(Data Element Scope: A coded observation value describing the type of antimicrobial start.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7338/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7338/expansion</a>			
Code	Code System	Code System OID	Print Name
2336-6	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	New antibiotic start
2337-4	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Continuation of antimicrobial

**Figure 203: Type of Antimicrobial Start Observation**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.5.6.230"
    extension="2015-10-01" />
  <code codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="2335-8"
    displayName="New outpatient start or continuation of inpatient course" />
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="2337-4"
    displayName="Continuation of antimicrobial" />
</observation>
```

### 3.143 Urinary Catheter Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.171 (closed)]

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**Table 545: Urinary Catheter Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a UTI Report (V2)</a> (required)	<a href="#">Device Insertion Time and Location Procedure</a> (optional) <a href="#">History of Object Presence Observation</a> (optional)

This observation records whether or not the person was using a urinary catheter in a UTI report. If a urinary catheter is present, set the value of @negationInd to false. If the urinary catheter is not present, set the value of @negationInd to true.



**Table 546: Urinary Catheter Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.171)					
@classCode	1..1	SHALL		<a href="#">86-21460</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-21461</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-21462</a>	
templateId	1..1	SHALL		<a href="#">86-28293</a>	
@root	1..1	SHALL		<a href="#">86-28294</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-22114</a>	
@root	1..1	SHALL		<a href="#">86-22117</a>	2.16.840.1.113883.10.20.5.6.171
id	1..1	SHALL		<a href="#">86-22115</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22727</a>	NA
code	1..1	SHALL		<a href="#">86-21463</a>	
@code	1..1	SHALL	CS	<a href="#">86-22116</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28393</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">86-21465</a>	
@code	1..1	SHALL		<a href="#">86-21466</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-21467</a>	
@code	1..1	SHALL		<a href="#">86-21468</a>	3191-4
@codeSystem	1..1	SHALL		<a href="#">86-28394</a>	urn:oid:2.16.840.1.113883.6.277 (CDCNHSN) = 2.16.840.1.113883.6.277
entryRelationship	0..*	MAY		<a href="#">86-21469</a>	
@typeCode	1..1	SHALL		<a href="#">86-21470</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
@inversionInd	1..1	SHALL		<a href="#">86-21471</a>	true
procedure	1..1	SHALL		<a href="#">86-21472</a>	<a href="#">Device Insertion Time and Location Procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.122)</a>
entryRelationship	0..1	MAY		<a href="#">86-22728</a>	
@typeCode	1..1	SHALL		<a href="#">86-22729</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">86-22730</a>	<a href="#">History of Object Presence Observation (identifier: urn:oid:2.16.840.1.113883.10.</a>

XPath	Card.	Verb	Data Type	CONF#	Value
					<a href="#">20.5.6.132</a>

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21460).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21461).
4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:86-21462).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28293) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28294).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22114) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.171" (CONF:86-22117).
7. **SHALL** contain exactly one [1..1] **id** (CONF:86-22115).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22727).
8. **SHALL** contain exactly one [1..1] **code** (CONF:86-21463).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:86-22116).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28393).
9. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-21465).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-21466).
10. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:86-21467).
  - a. This value **SHALL** contain exactly one [1..1] **@code**="3191-4" Urinary catheter present (CONF:86-21468).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.277" (CodeSystem: CDCNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:86-28394).
11. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:86-21469) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:86-21470).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd**="true" (CONF:86-21471).
  - c. **SHALL** contain exactly one [1..1] [Device Insertion Time and Location Procedure](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.122) (CONF:86-21472).
12. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:86-22728) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:86-22729).
- b. **SHALL** contain exactly one [1..1] [History of Object Presence Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.132) (CONF:86-22730).
- c. If a urinary catheter is not present (@negationInd="true"), this entryRelationship **SHALL** be present (CONF:86-22731).

**Figure 204: Urinary Catheter Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation templateId. -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Urinary Catheter Observation templateId-->
  <templateId root="2.16.840.1.113883.10.20.5.6.171"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.5.4"
    code="ASSERTION"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="cdcNHSN"
    code="3191-4"
    displayName="Urinary Catheter Present"/>
  <entryRelationship typeCode="REFR"
    <procedure classCode="PROC" moodCode="EVN">
      <!-- C-CDA Procedure Activity Procedure templateId -->
      <templateId root="2.16.840.1.113883.10.20.22.4.14" />
      <!-- HAI Device Insertion Time and Location Procedure templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.122" />
      ...
    </entryRelationship>
  </entryRelationship>
</observation>
```

### 3.144 Vaccination Type Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.242:2017-04-01 (closed)]

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**Table 547: Vaccination Type Observation Contexts**

Contained By:	Contains:
<a href="#">Summary Data Section (HP-FLU)</a> (required)	

This clinical statement represents the type of vaccination administered.

**Table 548: Vaccination Type Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.242:2017-04-01)					
@classCode	1..1	SHALL		<a href="#">3311-61</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">3311-69</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">3311-46</a>	
@root	1..1	SHALL		<a href="#">3311-59</a>	2.16.840.1.113883.10.20.5.6.242
@extension	1..1	SHALL		<a href="#">3311-60</a>	2017-04-01
code	1..1	SHALL		<a href="#">3311-47</a>	
@code	1..1	SHALL		<a href="#">3311-64</a>	30956-7
@codeSystem	1..1	SHALL		<a href="#">3311-65</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
value	1..1	SHALL	CD	<a href="#">3311-49</a>	
@code	1..1	SHALL		<a href="#">3311-70</a>	6142004
@codeSystem	1..1	SHALL		<a href="#">3311-71</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
qualifier	1..1	SHALL		<a href="#">3311-50</a>	
name	1..1	SHALL		<a href="#">3311-51</a>	
@code	1..1	SHALL		<a href="#">3311-66</a>	260837004
@codeSystem	1..1	SHALL		<a href="#">3311-67</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
value	1..1	SHALL		<a href="#">3311-68</a>	
@code	1..1	SHALL		<a href="#">3311-72</a>	21864008
@codeSystem	1..1	SHALL		<a href="#">3311-73</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3311-61).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3311-69).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3311-46) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.242" (CONF:3311-59).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2017-04-01" (CONF:3311-60).
4. **SHALL** contain exactly one [1..1] **code** (CONF:3311-47).

- a. This code **SHALL** contain exactly one [1..1] **@code**="30956-7" Type [Identifier] Vaccine (CONF:3311-64).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3311-65).
5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:3311-49).  
Note: Vaccination type (defaults to Influenza)
- a. This value **SHALL** contain exactly one [1..1] **@code**="6142004" Influenza (CONF:3311-70).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3311-71).
  - c. This value **SHALL** contain exactly one [1..1] **qualifier** (CONF:3311-50) such that it
    - i. **SHALL** contain exactly one [1..1] **name** (CONF:3311-51).
      - 1. This name **SHALL** contain exactly one [1..1] **@code**="260837004" subtype (CONF:3311-66).
      - 2. This name **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3311-67).
    - ii. **SHALL** contain exactly one [1..1] **value** (CONF:3311-68).  
Note: Influenza subtype
      - 1. This value **SHALL** contain exactly one [1..1] **@code**="21864008" Seasonal (CONF:3311-72).
      - 2. This value **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3311-73).

**Figure 205: Vaccination Type Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- [HAI R3D2] Vaccination Type Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.242" extension="2017-04-01" />
  <code code="30956-7"
    displayName="Type [Identifier] Vaccine"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC" />
  <value xsi:type="CD" code="6142004"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"
    displayName="Influenza">
    <qualifier>
      <!-- name is how value "qualifies" the code - Seasonal is a subtype of
Influenza -->
      <name code="260837004"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED CT"
        displayName="subtype" />
      <value code="21864008"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED CT"
        displayName="Seasonal" />
    </qualifier>
  </value>
</observation>
```

### 3.145Vascular Access Type Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.172 (closed)]

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**Table 549: Vascular Access Type Observation Contexts**

Contained By:	Contains:
<a href="#">Risk Factors Section in an Evidence of Infection (Dialysis) Report (V5)</a> (required)	<a href="#">Buttonhole Cannulation Observation</a> (optional)

This observation records the presence or absence of a type of vascular access. This clinical statement is used in the Risk Factors Section in an Evidence of Infection (Dialysis) Report.

NHSN protocol requires one such observation for each value in the NHSNVascularAccessType value set, and an additional such observation that records whether any other type of vascular access was present.

The value of effectiveTime/low represents the access placement date. NHSN protocol specifies that this date be recorded as year and month. CDA requires that the year be recorded as four digits: the form of an access placement date will be yyyy-mm. If the access placement date is not known, the value of @nullFlavor will be "NI".

When the vascular access type was present set the value of @negationInd to false and record the access placement date in effectiveTime/low/@value. When the vascular access type was absent, set the value of @negationInd to true and set effectiveTime/low/@nullFlavor='NA'.

**Table 550: Vascular Access Type Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.172)					
@classCode	1..1	SHALL		<a href="#">86-21474</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-21475</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-21476</a>	
templateId	1..1	SHALL		<a href="#">86-28295</a>	
@root	1..1	SHALL		<a href="#">86-28296</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-22037</a>	
@root	1..1	SHALL		<a href="#">86-22038</a>	2.16.840.1.113883.10.20.5.6.172
id	1..1	SHALL		<a href="#">86-22721</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22722</a>	
code	1..1	SHALL		<a href="#">86-21477</a>	
@code	1..1	SHALL		<a href="#">86-21478</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">86-28395</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
text	0..1	MAY		<a href="#">86-21479</a>	
statusCode	1..1	SHALL		<a href="#">86-21481</a>	
@code	1..1	SHALL		<a href="#">86-21482</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">86-21483</a>	
low	1..1	SHALL		<a href="#">86-21484</a>	
value	1..1	SHALL		<a href="#">86-21487</a>	
entryRelationship	0..1	MAY		<a href="#">86-21490</a>	
@typeCode	1..1	SHALL		<a href="#">86-21491</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">86-21492</a>	<a href="#">Buttonhole Cannulation Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.115)</a>

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).

2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-21474).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-21475).

When the vascular access type was present set the value of **@negationInd** to false. When the vascular access type was absent, set the value of **@negationInd** to true.

4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:86-21476).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28295) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28296).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-22037) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.172" (CONF:86-22038).
7. **SHALL** contain exactly one [1..1] **id** (CONF:86-22721).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor** (CONF:86-22722).
8. **SHALL** contain exactly one [1..1] **code** (CONF:86-21477).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:86-21478).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28395).
9. **MAY** contain zero or one [0..1] **text** (CONF:86-21479).
  - a. The text element is to be used for additional information commenting on the vascular access type (CONF:86-21480).
10. **SHALL** contain exactly one [1..1] **statusCode** (CONF:86-21481).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-21482).
11. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:86-21483).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:86-21484).
    - i. When the access placement date is not known, the value of **@nullFlavor** **SHALL** be NI (no information) (CONF:86-21485).
    - ii. When the access placement date is known, it **SHALL** be recorded as year and month (yyymm) (CONF:86-21486).
12. **SHALL** contain exactly one [1..1] **value** (CONF:86-21487).
  - a. To record the presence or absence of a vascular access type that is listed in the NHSN Vascular Access Type value set, the value of **@code** **SHALL** be selected from ValueSet 2.16.840.1.114222.4.11.6007 NHSNVascularAccessTypeCode **DYNAMIC** (CONF:86-21488).
  - b. To record that another type of vascular access is present, set the value of **@nullFlavor** to OTH (other) (CONF:86-21489).

If the vascular access type is "Surgically constructed arteriovenous fistula" (SNOMED CT 438503005), this observation **SHALL** contain the following entryRelationship



13. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:86-21490) such that it
- SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:86-21491).
  - SHALL** contain exactly one [1..1] Buttonhole Cannulation Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.115) (CONF:86-21492).

**Table 551: NHSNVascularAccessTypeCode**

Value Set: NHSNVascularAccessTypeCode urn:oid:2.16.840.1.114222.4.11.6007 (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the vascular access type.),(Data Element Scope: A coded observation value describing the type of vascular access.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6007/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6007/expansion</a>			
Code	Code System	Code System OID	Print Name
1117-1	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Tunneled (dialysis)
1119-7	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Non-tunneled (dialysis)
1969-5	CDCNHSN	urn:oid:2.16.840.1.113883.6.277	Catheter-graft hybrid
439218000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Surgically constructed arteriovenous graft (finding)
439784005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Surgically constructed arteriovenous fistula (finding)

**Figure 206: Vascular Access Type Observation Example**

```
<!-- When the vascular access type was present set the value of @negationInd to false and
record the access placement date in effectiveTime/low/@value. When the vascular access type
was absent, set the value of @negationInd to true and set
effectiveTime/low/@nullFlavor='NA'. -->
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Vascular Access Type Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.172"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION"/>
  <statusCode code="completed"/>
  <!-- Access placement date; may be unknown @nullFlavor="NI" -->
  <effectiveTime>
    <low value="200708"/>
  </effectiveTime>
  <value xsi:type="CD"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"
    code="438503005"
    displayName="Surgically constructed arteriovenous fistula"/>
  <!-- If a fistula, specify whether buttonhole cannulation is used -->
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <!-- C-CDA Procedure Activity Observation -->
      <templateId root="2.16.840.1.113883.10.20.22.4.13"/>
      <!-- HAI Buttonhole Cannulation Observation templateId -->
      <templateId root="2.16.840.1.113883.10.20.5.6.115"/>
      ...
    </observation>
  </entryRelationship>
</observation>
```

### 3.146 Vascular Access Type Used on Day of Event Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.293:2023-02-01  
(closed)]

Published as part of NHSN Healthcare Associated Infection Reports Release 4,  
STU 2.1 – US Realm

**Table 552: Vascular Access Type Used on Day of Event Observation Contexts**

Contained By:	Contains:
<a href="#">Risk Factors Section in an Evidence of Infection (Dialysis) Report (V5)</a> (required)	

This observation records the vascular access type used on the day of the event. This clinical statement is used in the Risk Factors Section in an Evidence of Infection (Dialysis) Report.

**Table 553: Vascular Access Type Used on Day of Event Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.293:2023-02-01)					
@classCode	1..1	SHALL		<a href="#">4545-30810</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4545-30811</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">4545-30822</a>	
@root	1..1	SHALL		<a href="#">4545-30823</a>	2.16.840.1.113883.10.20.5.6.293
@extension	1..1	SHALL		<a href="#">4545-30824</a>	2023-02-01
code	1..1	SHALL		<a href="#">4545-30799</a>	
@code	1..1	SHALL		<a href="#">4545-30813</a>	72050-8
@codeSystem	1..1	SHALL		<a href="#">4545-30814</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">4545-30801</a>	
@code	1..1	SHALL		<a href="#">4545-30816</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">4545-30804</a>	urn:oid:2.16.840.1.114222.4.11.6007 (NHSNVascularAccessTypeCode)
@nullFlavor	0..1	MAY		<a href="#">4545-30825</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = OTH

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4545-30810).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4545-30811).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:4545-30822) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.293" (CONF:4545-30823).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2023-02-01" (CONF:4545-30824).
4. **SHALL** contain exactly one [1..1] **code** (CONF:4545-30799).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="72050-8" Dialysis access (CONF:4545-30813).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4545-30814).

5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4545-30801).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:4545-30816).
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"**, where the code **SHALL** be selected from ValueSet [NHSNVascularAccessTypeCode](#) urn:oid:2.16.840.1.114222.4.11.6007 **DYNAMIC** (CONF:4545-30804).

To record that another type of vascular access was used, set the value of **@nullFlavor** to OTH (other).

- a. This value **MAY** contain zero or one [0..1] **@nullFlavor="OTH"** Other (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:4545-30825).

**Figure 207: Vascular Access Type Used on Day of Event Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="true">
  <!-- [HAI R1] Vascular Access Type Used on Day of Event Observation -->
  <templateId root="2.16.840.1.113883.10.20.5.6.293" extension="2023-02-01" />
  <code codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="Dialysis access"
    code="72050-8" />
  <statusCode code="completed" />
  <value xsi:type="CD" codeSystem="2.16.840.1.113883.6.277"
    codeSystemName="CDCNHSN"
    code="1119-7"
    displayName="Non-tunneled central line, dialysis" />
</observation>
```

### 3.147Ventricular Assist Device (VAD) Present

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.247:2017-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
Release 3, STU 2 - US Realm

**Table 554: Ventricular Assist Device (VAD) Present Contexts**

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a BSI Report (V3)</a> (required)	

This procedure represents whether or not a ventricular assist device is present. The code for the procedure is represented with **nullFlavor="UNK"** as the procedure to implant the ventricular assist device is unknown. The ventricular assist device is represented by the participant.

If a ventricular assist device was present, set the value of **@negationInd** to false. If a ventricular assist device was not present, set the value of **@negationInd** to true.

**Table 555: Ventricular Assist Device (VAD) Present Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.247:2017-04-01)					
@classCode	1..1	SHALL		<a href="#">3311-226</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">3311-227</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">3311-228</a>	
templateId	1..1	SHALL		<a href="#">3311-218</a>	
@root	1..1	SHALL		<a href="#">3311-224</a>	2.16.840.1.113883.10.20.5.6.247
@extension	1..1	SHALL		<a href="#">3311-225</a>	2017-04-01
code	1..1	SHALL		<a href="#">3311-215</a>	
@nullFlavor	1..1	SHALL		<a href="#">3311-28443</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK
statusCode	1..1	SHALL		<a href="#">3311-216</a>	
@code	1..1	SHALL		<a href="#">3311-221</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
participant	0..*	MAY		<a href="#">3311-28445</a>	
@typeCode	1..1	SHALL		<a href="#">3311-28447</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV
participantRole	1..1	SHALL		<a href="#">3311-28446</a>	
@classCode	1..1	SHALL		<a href="#">3311-28448</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
playingDevice	1..1	SHALL		<a href="#">3311-28449</a>	
code	1..1	SHALL		<a href="#">3311-28450</a>	
@code	1..1	SHALL		<a href="#">3311-28451</a>	360064003
@codeSystem	1..1	SHALL		<a href="#">3311-28452</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96

1. **SHALL** contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3311-226).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3311-227).

If a ventricular assist device (VAD) was present, set the value of @negationInd to false. If a ventricular assist device (VAD) was not present set the value of @negationInd to true.

3. **SHALL** contain exactly one [1..1] @negationInd (CONF:3311-228).

4. **SHALL** contain exactly one [1..1] **templateId** (CONF:3311-218) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.247" (CONF:3311-224).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2017-04-01" (CONF:3311-225).

The code for the procedure is represented with nullFlavor="UNK" as the procedure to implant the ventricular assist device is unknown.

5. **SHALL** contain exactly one [1..1] **code** (CONF:3311-215).
  - a. This code **SHALL** contain exactly one [1..1] **@nullFlavor**="UNK" Unknown (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:3311-28443).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3311-216).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:3311-221).

The ventricular assist device is represented by the participant.

7. **MAY** contain zero or more [0..\*] **participant** (CONF:3311-28445).
  - a. The participant, if present, **SHALL** contain exactly one [1..1] **@typeCode**="DEV" Device (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3311-28447).
  - b. The participant, if present, **SHALL** contain exactly one [1..1] **participantRole** (CONF:3311-28446).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode**="MANU" Manufactured product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3311-28448).
    - ii. This participantRole **SHALL** contain exactly one [1..1] **playingDevice** (CONF:3311-28449).
      1. This playingDevice **SHALL** contain exactly one [1..1] **code** (CONF:3311-28450).
        - a. This code **SHALL** contain exactly one [1..1] **@code**="360064003" Ventricular assist device (CONF:3311-28451).
        - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3311-28452).

**Figure 208: Ventricular Assist Device (VAD) Present Example**

```
<procedure classCode="PROC" moodCode="EVN" negationInd="false">
  <!-- [HAI R3D2] Ventricular Assist Device (VAD) Present -->
  <templateId root="2.16.840.1.113883.10.20.5.6.247" extension="2017-04-01" />
  <code nullFlavor="UNK" />
  <statusCode code="completed" />
  <participant typeCode="DEV">
    <participantRole classCode="MANU">
      <playingDevice>
        <code code="360064003"
          codeSystem="2.16.840.1.113883.6.96"
          codeSystemName="SNOMED CT"
          displayName="Ventricular assist device" />
      </playingDevice>
    </participantRole>
  </participant>
</procedure>
```

### 3.148 Weight Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.173 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
Release 1 - US Realm

**Table 556: Weight Observation Contexts**

Contained By:	Contains:
<a href="#">Infection Risk Factors Section in a Procedure Report</a> (required) <a href="#">Infection Risk Factors Section in an OPC Denominator for Procedure</a> (required)	

This observation records a body weight. NHSN protocol requires that the value be an integer.

**Table 557: Weight Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.173)					
@classCode	1..1	SHALL		<a href="#">86-19702</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-19703</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">86-19704</a>	false
templateId	1..1	SHALL		<a href="#">86-28297</a>	
@root	1..1	SHALL		<a href="#">86-28298</a>	2.16.840.1.113883.10.20.22.4.27
templateId	1..1	SHALL		<a href="#">86-19712</a>	
@root	1..1	SHALL		<a href="#">86-19714</a>	2.16.840.1.113883.10.20.5.6.173
id	1..1	SHALL		<a href="#">86-19897</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22718</a>	NA
code	1..1	SHALL		<a href="#">86-19705</a>	
@code	1..1	SHALL		<a href="#">86-19706</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 27113001
statusCode	1..1	SHALL		<a href="#">86-19707</a>	
@code	1..1	SHALL		<a href="#">86-19708</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">86-19898</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22719</a>	NA
value	1..1	SHALL	PQ	<a href="#">86-19709</a>	
@value	1..1	SHALL		<a href="#">86-19710</a>	
@unit	1..1	SHALL		<a href="#">86-28399</a>	

1. Conforms to Vital Sign Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.27).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-19702).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-19703).
4. **SHALL** contain exactly one [1..1] @negationInd="false" (CONF:86-19704).
5. **SHALL** contain exactly one [1..1] templateId (CONF:86-28297) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.27" (CONF:86-28298).
6. **SHALL** contain exactly one [1..1] templateId (CONF:86-19712) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.173" (CONF:86-19714).
7. **SHALL** contain exactly one [1..1] id (CONF:86-19897).



- a. This id **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22718).
8. **SHALL** contain exactly one [1..1] code (CONF:86-19705).
  - a. This code **SHALL** contain exactly one [1..1] @code="27113001" Body weight (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:86-19706).
9. **SHALL** contain exactly one [1..1] statusCode (CONF:86-19707).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-19708).
10. **SHALL** contain exactly one [1..1] effectiveTime (CONF:86-19898).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22719).
11. **SHALL** contain exactly one [1..1] value with @xsi:type="PQ" (CONF:86-19709).
  - a. This value **SHALL** contain exactly one [1..1] @value (CONF:86-19710).
    - i. The value of @value **SHALL** be a non-negative real number representing the body weight in terms of the units specified in @unit (CONF:86-28400).
  - b. This value **SHALL** contain exactly one [1..1] @unit (CONF:86-28399).

**Figure 209: Weight Observation Example**

```
<observation classCode="OBS" moodCode="EVN" negationInd="false">
  <!-- C-CDA Vital Sign Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.27"/>
  <!-- HAI Weight Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.5.6.173"/>
  <id nullFlavor="NA"/>
  <code codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED"
        code="27113001"
        displayName="Body Weight"/>
  <statusCode code="completed"/>
  <effectiveTime nullFlavor="NA"/>
  <value xsi:type="PQ" value="65" unit="kg"/>
</observation>
```

### 3.149 Wound Class Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.174 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports  
Release 1 - US Realm

**Table 558: Wound Class Observation Contexts**

Contained By:	Contains:
<a href="#">Procedure Risk Factors Clinical Statement in a Procedure Report</a> (required)	

NHSN patient safety protocol on this topic is an adaptation of (not a change to) the American College of Surgeons (ACoS) definitions, which are the definitions used by SNOMED. Thus, SNOMED wound-class codes are appropriate for use with this observation.

**Table 559: Wound Class Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.174)					
@classCode	1..1	SHALL		<a href="#">86-19679</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">86-19680</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">86-28299</a>	
@root	1..1	SHALL		<a href="#">86-28300</a>	2.16.840.1.113883.10.20.22.4.4
templateId	1..1	SHALL		<a href="#">86-19689</a>	
@root	1..1	SHALL		<a href="#">86-19690</a>	2.16.840.1.113883.10.20.5.6.174
id	1..1	SHALL		<a href="#">86-19691</a>	
@nullFlavor	1..1	SHALL		<a href="#">86-22717</a>	NA
code	1..1	SHALL		<a href="#">86-19681</a>	
@code	1..1	SHALL		<a href="#">86-19682</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 420089007
statusCode	1..1	SHALL		<a href="#">86-19683</a>	
@code	1..1	SHALL		<a href="#">86-19684</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">86-19685</a>	urn:oid:2.16.840.1.113883.13.9 (NHSNWoundClassCode)

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:86-19679).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:86-19680).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-28299) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28300).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:86-19689) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.5.6.174" (CONF:86-19690).
6. **SHALL** contain exactly one [1..1] **id** (CONF:86-19691).
  - a. This id **SHALL** contain exactly one [1..1] **@nullFlavor**="NA" (CONF:86-22717).
7. **SHALL** contain exactly one [1..1] **code** (CONF:86-19681).

- a. This code **SHALL** contain exactly one [1..1] @code="420089007" CDC Wound Classification Category (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:86-19682).
8. **SHALL** contain exactly one [1..1] statusCode (CONF:86-19683).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:86-19684).
9. **SHALL** contain exactly one [1..1] value with @xsi:type="CD", where the code **SHALL** be selected from ValueSet [NHSNWoundClassCode](#) urn:oid:2.16.840.1.113883.13.9 **DYNAMIC** (CONF:86-19685).

**Table 560: NHSNWoundClassCode**

Value Set: NHSNWoundClassCode urn:oid:2.16.840.1.113883.13.9 (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the wound class.),(Data Element Scope: A coded observation value describing the wound class.),(Inclusion Criteria: ),(Exclusion Criteria: ) This value set was imported on 10/14/2020 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.9/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.9/expansion</a>			
Code	Code System	Code System OID	Print Name
418115006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Centers for Disease Control and Prevention Class II/Clean-contaminated (finding)
418422005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Centers for Disease Control and Prevention Class IV/Dirty-infected (finding)
418780004	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Centers for Disease Control and Prevention Class I/Clean (finding)
419877002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Centers for Disease Control and Prevention Class III/Contaminated (finding)

**Figure 210: Wound Class Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- C-CDA Problem Observation templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
  <!-- HAI Wound Class Observation templateID -->
  <templateId root="2.16.840.1.113883.10.20.5.6.174"/>
  <id nullFlavor="NA"/>
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        displayName="Wound Classification Category"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
        codeSystem="2.16.840.1.113883.6.96"
        code="418115006"
        displayName="CDC Wound Class II/Clean Contaminated"/>
</observation>
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## 4 TEMPLATE IDS IN THIS GUIDE

**Table 561: Template List**

Template Title	Template Type	templateId
<a href="#">Outpatient Procedure Component Denominator for Procedure Report (V6)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.56:2025-05-01
<a href="#">Antimicrobial Resistance Option (ARO) Summary Report (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.46:2019-04-01
<a href="#">Antimicrobial Use (AUP) Summary Report (V2)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.44:2015-04-01
<a href="#">HAI AUR Antimicrobial Resistance Option (ARO) Report (V10)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.31:2025-05-01
<a href="#">HAI Bloodstream Infection Report (BSI) (V9)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.32:2025-05-01
<a href="#">HAI Central-Line Insertion Practice Numerator Report (V7)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.36:2025-05-01
<a href="#">HAI Evidence of Infection (Dialysis) Report (V11)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.37:2025-05-01
<a href="#">HAI Laboratory-Identified Organism (LIO) Report (V7)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.38:2025-05-01
<a href="#">HAI Population Summary Report Generic Constraints</a>	document	urn:oid:2.16.840.1.113883.10.20.5.4.28
<a href="#">HAI Procedure Denominator Report (V7)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.35.2:2025-05-01
<a href="#">HAI Single-Person Report Generic Constraints (V6)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01
<a href="#">HAI Surgical Site Infection Report (SSI) (V8)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.33.2:2025-05-01
<a href="#">HAI Urinary Tract Infection Numerator Report (UTI) (V7)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.34:2025-05-01
<a href="#">Healthcare Associated Infection Report</a>	document	urn:oid:2.16.840.1.113883.10.20.5.4.25
<a href="#">Healthcare Personnel Influenza Vaccination (HP-FLU) Summary Report</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.50:2017-04-01
<a href="#">Hemovigilance (HV) Summary Report (V2)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.49:2016-08-01
<a href="#">Intensive Care Unit (ICU) Summary Report (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.40:2018-04-01
<a href="#">Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report (V6)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.58:2025-05-01
<a href="#">Late Onset Sepsis/Meningitis Event (LOS) Report (V7)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.53:2025-05-01
<a href="#">Neonatal Intensive Care Unit</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.

Template Title	Template Type	templateId
<a href="#">(NICU) Summary Report (V3)</a>		5.41:2018-04-01
<a href="#">Outpatient Procedure Component Denominator for Same Day Outcome Measures Report</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.55:2019-04-01
<a href="#">Outpatient Procedure Component Same Day Outcome Measures Event Report (V6)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.54:2025-05-01
<a href="#">Outpatient Procedure Surgical Site Infection (SSI) Event Report (V6)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.57:2025-05-01
<a href="#">Prevention Process and Outcome Measures (POM) Summary Report (V4)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.43:2022-04-01
<a href="#">Specialty Care Area (SCA) Summary Report (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.42:2018-04-01
<a href="#">Vascular Access Type Report (VAT) Summary Report (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.45:2018-04-01
<a href="#">Ventilator Associated Event (VAE) Report (V7)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.51:2025-05-01
<a href="#">COVID-19 Section (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01
<a href="#">Details Section in an Evidence of Infection (Dialysis) Report (V6)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.41:2019-04-01
<a href="#">Encounters Section in a LIO Report (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.44:2014-12-01
<a href="#">Encounters Section in a LOS/Men Denominator</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.71:2019-04-01
<a href="#">Findings Section in a LIO Report (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.46:2014-12-01
<a href="#">Findings Section in an ARO Report (V5)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.32:2024-05-01
<a href="#">Findings Section in an Infection-Type Report</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.45
<a href="#">Findings Section in an OPC SSI Report</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.70:2019-04-01
<a href="#">HAI Section Generic Constraints</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.4.26
<a href="#">Infection Details in Late Onset Sepsis Report</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.64:2018-04-01
<a href="#">Infection Details Section in a BSI Report</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.38
<a href="#">Infection Details Section in a UTI Report</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.40
<a href="#">Infection Details Section in a VAE Report</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.59:2017-04-01
<a href="#">Infection Details Section in an OPC SSI Report</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.69:2019-04-01

Template Title	Template Type	templateId
<a href="#">Infection Details Section in an SSI Report (V2)</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.39.2
<a href="#">Infection Risk Factors Section in a BSI Report (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.33:2018-04-01
<a href="#">Infection Risk Factors Section in a CLIP Report (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.34:2014-12-01
<a href="#">Infection Risk Factors Section in a Procedure Report</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.35
<a href="#">Infection Risk Factors Section in a UTI Report (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.36:2025-05-01
<a href="#">Infection Risk Factors Section in an OPC Denominator for Procedure</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.68:2019-04-01
<a href="#">NHSN Comment Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01
<a href="#">NHSN Social History Section (V4)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.81:2025-05-01
<a href="#">Procedure Details Section in a CLIP Report</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.42
<a href="#">Procedure Details Section in a Procedure Report (V2)</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.43.2
<a href="#">Procedure Details Section in an OPC Denominator for Procedure</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.67:2019-04-01
<a href="#">Report No Events Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01
<a href="#">Risk Factors Section in a LOS/Men Denominator</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.72:2019-04-01
<a href="#">Risk Factors Section in a LOS/Men Event (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.65:2019-04-01
<a href="#">Risk Factors Section in a VAE Report</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.60:2017-04-01
<a href="#">Risk Factors Section in an Evidence of Infection (Dialysis) Report (V5)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.37:2023-12-01
<a href="#">Same Day Outcome Measures Event Details Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.66:2019-04-01
<a href="#">Summary Data Section</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.47
<a href="#">Summary Data Section (ARO) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.52:2019-04-01
<a href="#">Summary Data Section (AUP) (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.51:2015-04-01
<a href="#">Summary Data Section (HP-FLU)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.58:2017-04-01
<a href="#">Summary Data Section (HV) (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.57:2016-08-01
<a href="#">Summary Data Section (NICU) (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.

Template Title	Template Type	templateId
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<a href="#">Summary Data Section (POM) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.49:2022-04-01
<a href="#">Summary Data Section (VAT)</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.50
<a href="#">Anesthesia Administration Clinical Statement</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.112
<a href="#">Antimicrobial Coated Catheter Used Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.217:2014-12-01
<a href="#">Antimicrobial Susceptibility Final Interpretation Result</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.175
<a href="#">Antimicrobial Susceptibility Isolate Participant (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.202:2020-04-01
<a href="#">Antimicrobial Susceptibility Result Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.186:2016-08-01
<a href="#">Antimicrobial Susceptibility Result Organizer (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.200:2016-08-01
<a href="#">Antimicrobial Susceptibility Tests Organizer (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.177:2016-08-01
<a href="#">APRV or Related at Time of VAE Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.248:2017-04-01
<a href="#">ARO Staph Aureus Specific Tests Organizer (DEPRECATED)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.190:2024-05-01
<a href="#">ARO Staph Aureus Specific Tests Result Observation (DEPRECATED)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.189:2024-05-01
<a href="#">ASA Class Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.113
<a href="#">Bacterial Isolate Tested for Carbapenemase Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.222:2014-12-01
<a href="#">Blood Collection Location</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.219:2014-12-01
<a href="#">Blood Product Usage Summary Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.237:2016-08-01
<a href="#">Blood Sample Collected for Culture Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.239:2016-08-01
<a href="#">Bloodstream Infection Evidence Type Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.114
<a href="#">Buttonhole Cannulation Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.115
<a href="#">Carbapenemase Test Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.224:2014-12-01
<a href="#">Carbapenemase Test Organizer</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.223:2014-12-01
<a href="#">Carbapenemase Type Identified Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.226:2014-12-01
<a href="#">Central-Line Insertion Practice</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.



Template Title	Template Type	templateId
<a href="#">Clinical Statement (V2)</a>		5.6.116:2014-12-01
<a href="#">Central-Line Insertion Preparation Organizer (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.179:2014-12-01
<a href="#">Closure Technique Procedure</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.117
<a href="#">Contraindicated Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.118:2014-12-01
<a href="#">Contraindication Type Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.216:2014-12-01
<a href="#">Criteria of Diagnosis Organizer</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.180
<a href="#">Criterion of Diagnosis Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.119
<a href="#">Death Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.120
<a href="#">Death Observation in an Evidence of Infection (Dialysis) Report</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.121
<a href="#">Device Insertion Time and Location Procedure</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.122
<a href="#">Diabetes Mellitus Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.123
<a href="#">Dialysis Clinic Admission Clinical Statement</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.124
<a href="#">Dialysis Patient Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.125
<a href="#">Drug-Susceptibility Test Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.126
<a href="#">Duration of Labor Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.127
<a href="#">Endoscope Used Clinical Statement</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.128
<a href="#">Epidermolysis Bullosa Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.252:2018-04-01
<a href="#">Extracorporeal Life Support Present</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.246:2017-04-01
<a href="#">Facility Transfuses Blood Products Treated with Pathogen Reduction Technology Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.236:2016-08-01
<a href="#">Findings Organizer</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.182
<a href="#">Genotypic Testing for Antimicrobial Resistance Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.302:2024-05-01
<a href="#">Genotypic Testing for Antimicrobial Resistance Organizer</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.303:2024-05-01
<a href="#">Gestational Age at Birth Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.255:2019-04-01

Template Title	Template Type	templateId
<a href="#">Guidewire Used Clinical Statement</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.129
<a href="#">Hand Hygiene Performed Clinical Statement</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.130
<a href="#">Height Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.131
<a href="#">Hemodialysis Catheter Present</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.245:2017-04-01
<a href="#">History of Object Presence Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.132
<a href="#">Hospital Admission Clinical Statement</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.133
<a href="#">Imputability Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.134
<a href="#">Inborn/Outborn Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.257:2018-04-01
<a href="#">Infection Condition Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.135
<a href="#">Infection Contributed to Death Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.136
<a href="#">Infection Indicator Organizer (V5)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.181:2019-04-01
<a href="#">Infection Present at the Time of Surgery Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.205
<a href="#">Infection Risk Factors Measurement Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.137
<a href="#">Infection Risk Factors Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.138
<a href="#">Infection-Type Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.139
<a href="#">Infection-Type Observation in an OPC SSI Event</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.263:2019-04-01
<a href="#">Inpatient Psychiatric (IPF) Unit in Facility</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.272:2022-04-01
<a href="#">Inpatient Rehabilitation (IRF) Unit in Facility</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.271:2022-04-01
<a href="#">Interpreter Needed Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.300:2024-05-01
<a href="#">Interpreter Used by Patient This Encounter Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.301:2024-05-01
<a href="#">ISBT Product Code Summary Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.238:2016-08-01
<a href="#">Isolate Susceptibility Tests Organizer (V5)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.201:2024-05-01
<a href="#">IV Antibiotic Start Clinical Statement (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.140:2019-04-01

Template Title	Template Type	templateId
<a href="#">IV Antifungal Start Clinical Statement</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.141
<a href="#">Known or Suspected Munchausen's By Proxy Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.250:2018-04-01
<a href="#">Last Physical Overnight Location Act</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.227:2014-12-01
<a href="#">Last Physical Overnight Location Encounter</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.220:2014-12-01
<a href="#">Location Within Facility Encounter</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.262:2019-04-01
<a href="#">Loss of Vascular Access Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.203
<a href="#">MDRO/CDI Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.142
<a href="#">Mechanical Ventilation Initiation Act</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.244:2017-04-01
<a href="#">Neurogenic Bladder Diagnosis</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.306:2025-05-01
<a href="#">Neurogenic Bladder Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.304:2025-05-01
<a href="#">NHSN Comment</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01
<a href="#">NHSN COVID-19 Condition Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.270:2021-01-01
<a href="#">No Hemovigilance Adverse Reactions Reported This Month Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.232:2015-10-01
<a href="#">No Hemovigilance Incidents Reported This Month Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.233:2015-10-01
<a href="#">Observed or Suspected Patient Injection into Vascular Line Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.251:2018-04-01
<a href="#">Occasion of HAI Detection Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.144
<a href="#">Other Facility Discharge Act</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.228:2014-12-01
<a href="#">Other Facility Discharge Encounter</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.218:2014-12-01
<a href="#">Pathogen Identified Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.145
<a href="#">Pathogen Identified Observation (LIO) (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.146:2014-12-01
<a href="#">Pathogen Ranking Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.147
<a href="#">Pathogen Reduced Apheresis Platelet Usage Summary</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.

Template Title	Template Type	templateId
<a href="#">Observation</a>		5.6.240:2016-08-01
<a href="#">Patient Admitted This Encounter Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.266:2020-04-01
<a href="#">PICC/IV Team</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.148
<a href="#">Positive Blood Culture Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.149:2019-04-01
<a href="#">Positive Test for Carbapenemase Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.225:2014-12-01
<a href="#">Post-Procedure Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.150
<a href="#">Primary C. Difficile Testing Method This Quarter</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.221:2014-12-01
<a href="#">Prior Discharge Encounter (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.151:2014-12-01
<a href="#">Procedure Details Clinical Statement in a CLIP Report</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.155
<a href="#">Procedure Details Clinical Statement in a Procedure Report (V2)</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.153.2
<a href="#">Procedure Details Clinical Statement in an Infection-Type Report</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.154
<a href="#">Procedure Details in an OPC Denominator for Procedure</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.259:2019-04-01
<a href="#">Procedure Details in an OPC SSI Event</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.265:2019-04-01
<a href="#">Procedure Risk Factors Clinical Statement in a Procedure Report</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.156
<a href="#">Pus Present in Specimen Site and Matching Organism in Blood and Specimen Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.253:2018-04-01
<a href="#">Pus, Redness, or Increased Swelling Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.157:2019-04-01
<a href="#">Reason for Procedure Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.158
<a href="#">Recorder Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.159
<a href="#">Report No Events</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01
<a href="#">Revision Associated with Prior Infection Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.204
<a href="#">Same Day Outcome Measure Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.208:2019-04-01
<a href="#">Same Day Outcome Measures Organizer (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.212:2019-04-01

Template Title	Template Type	templateId
<a href="#">Secondary Bloodstream Infection Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.160
<a href="#">Sex</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.305:2025-05-01
<a href="#">Skin Preparation Clinical Statement (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.162:2014-12-01
<a href="#">Skin-Preparation Solutions Applied Organizer (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.183:2014-12-01
<a href="#">Solutions Dried Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.163
<a href="#">Specimen Collection Encounter (ARO) (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.187:2020-04-01
<a href="#">Specimen Collection Encounter (LIO)</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.164
<a href="#">Specimen Collection Procedure (ARO) (V5)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.188:2024-05-01
<a href="#">Specimen Collection Procedure (LIO)</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.165
<a href="#">Spinal Cord Injury Diagnosis</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.307:2025-05-01
<a href="#">Spinal Fusion Level Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.166
<a href="#">SSI Detected Using Toolkit Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.206
<a href="#">SSI Detection Method</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.261:2019-04-01
<a href="#">Sterile Barriers Applied Clinical Statement</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.167
<a href="#">Summary Data Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.185
<a href="#">Summary Data Observation (AU/AR)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01
<a href="#">Summary Data Observation (AUP)</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.194
<a href="#">Summary Data Observation (HV)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.235:2015-10-01
<a href="#">Summary Data Observation (POM)</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.192
<a href="#">Summary Data Observation (VAT)</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.195
<a href="#">Summary Encounter</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.184
<a href="#">Summary Encounter (ARO) (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.199:2019-04-01
<a href="#">Summary Encounter (AUP) (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.198:2015-04-01

Template Title	Template Type	templateId
<a href="#">Summary Encounter (HP-FLU)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.241:2017-04-01
<a href="#">Summary Encounter (HV) (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.234:2016-08-01
<a href="#">Summary Encounter (NICU)</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.191
<a href="#">Summary Encounter (POM)</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.193
<a href="#">Summary Encounter (VAT)</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.196
<a href="#">Summary Encounter Patient Presence (AUP) (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.197:2015-04-01
<a href="#">Suspected Source Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.168
<a href="#">Transient Patient Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.169
<a href="#">Trauma Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.170
<a href="#">Type of Antimicrobial Start Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.230:2015-10-01
<a href="#">Urinary Catheter Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.171
<a href="#">Vaccination Type Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.242:2017-04-01
<a href="#">Vascular Access Type Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.172
<a href="#">Vascular Access Type Used on Day of Event Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.293:2023-02-01
<a href="#">Ventricular Assist Device (VAD) Present</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.247:2017-04-01
<a href="#">Weight Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.173
<a href="#">Wound Class Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.174

**Table 562: Template Containments**

<b>Template Title</b>	<b>Template Type</b>	<b>templateId</b>
<a href="#">Outpatient Procedure Component Denominator for Procedure Report (V6)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.56:2025-05-01
<a href="#">NHSN Comment Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01
<a href="#">NHSN Comment</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01
<a href="#">Procedure Details Section in an OPC Denominator for Procedure</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.67:2019-04-01
<a href="#">Procedure Details in an OPC Denominator for Procedure</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.259:2019-04-01
<a href="#">Anesthesia Administration Clinical Statement</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.112
<a href="#">Infection Risk Factors Section in an OPC Denominator for Procedure</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.68:2019-04-01
<a href="#">ASA Class Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.113
<a href="#">Weight Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.173
<a href="#">Height Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.131
<a href="#">Diabetes Mellitus Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.123
<a href="#">Procedure Risk Factors Clinical Statement in a Procedure Report</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.156
<a href="#">Wound Class Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.174
<a href="#">Endoscope Used Clinical Statement</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.128
<a href="#">Antimicrobial Resistance Option (ARO) Summary Report (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.46:2019-04-01
<a href="#">NHSN Comment Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01
<a href="#">NHSN Comment</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01
<a href="#">Report No Events Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01
<a href="#">Report No Events</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01
<a href="#">Summary Data Section (ARO) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.52:2019-04-01
<a href="#">Summary Encounter (ARO) (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.199:2019-04-01



Template Title	Template Type	templateId
<a href="#">Summary Data Observation (AU/AR)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01
<a href="#">Antimicrobial Use (AUP) Summary Report (V2)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.44:2015-04-01
<a href="#">Summary Data Section (AUP) (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.51:2015-04-01
<a href="#">Summary Encounter Patient Presence (AUP) (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.197:2015-04-01
<a href="#">Summary Data Observation (AU/AR)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01
<a href="#">Summary Encounter (AUP) (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.198:2015-04-01
<a href="#">Summary Data Observation (AUP)</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.194
<a href="#">Summary Data Observation (AU/AR)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01
<a href="#">HAI AUR Antimicrobial Resistance Option (ARO) Report (V10)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.31:2025-05-01
<a href="#">Findings Section in an ARO Report (V5)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.32:2024-05-01
<a href="#">Specimen Collection Procedure (ARO) (V5)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.188:2024-05-01
<a href="#">Specimen Collection Encounter (ARO) (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.187:2020-04-01
<a href="#">Patient Admitted This Encounter Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.266:2020-04-01
<a href="#">Isolate Susceptibility Tests Organizer (V5)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.201:2024-05-01
<a href="#">Antimicrobial Susceptibility Tests Organizer (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.177:2016-08-01
<a href="#">Antimicrobial Susceptibility Final Interpretation Result</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.175
<a href="#">Antimicrobial Susceptibility Result Organizer (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.200:2016-08-01
<a href="#">Antimicrobial Susceptibility Result Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.186:2016-08-01
<a href="#">Antimicrobial Susceptibility Isolate Participant (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.202:2020-04-01
<a href="#">Genotypic Testing for Antimicrobial Resistance Organizer</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.303:2024-05-01
<a href="#">Genotypic Testing for Antimicrobial Resistance Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.302:2024-05-01



Template Title	Template Type	templateId
<a href="#">ARO Staph Aureus Specific Tests Organizer (DEPRECATED)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.190:2024-05-01
<a href="#">ARO Staph Aureus Specific Tests Result Observation (DEPRECATED)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.189:2024-05-01
<a href="#">HAI Bloodstream Infection Report (BSI) (V9)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.32:2025-05-01
<a href="#">Infection Details Section in a BSI Report</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.38
<a href="#">Death Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.120
<a href="#">Infection Contributed to Death Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.136
<a href="#">Post-Procedure Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.150
<a href="#">Procedure Details Clinical Statement in an Infection-Type Report</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.154
<a href="#">Infection-Type Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.139
<a href="#">Bloodstream Infection Evidence Type Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.114
<a href="#">Secondary Bloodstream Infection Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.160
<a href="#">Infection Condition Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.135
<a href="#">Occasion of HAI Detection Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.144
<a href="#">Criteria of Diagnosis Organizer</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.180
<a href="#">Criterion of Diagnosis Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.119
<a href="#">Findings Section in an Infection-Type Report</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.45
<a href="#">Pathogen Identified Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.145
<a href="#">MDRO/CDI Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.142
<a href="#">Findings Organizer</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.182
<a href="#">Pathogen Ranking Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.147
<a href="#">Pathogen Identified Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.145
<a href="#">Drug-Susceptibility Test</a>	entry	urn:oid:2.16.840.1.113883.10.20.5

Template Title	Template Type	templateId
<a href="#">Observation</a>		.6.126
<a href="#">NHSN Comment Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01
<a href="#">NHSN Comment</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01
<a href="#">Infection Risk Factors Section in a BSI Report (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.33:2018-04-01
<a href="#">Infection Risk Factors Measurement Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.137
<a href="#">Infection Risk Factors Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.138
<a href="#">Device Insertion Time and Location Procedure</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.122
<a href="#">Hemodialysis Catheter Present</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.245:2017-04-01
<a href="#">Extracorporeal Life Support Present</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.246:2017-04-01
<a href="#">Ventricular Assist Device (VAD) Present</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.247:2017-04-01
<a href="#">Known or Suspected Munchausen's By Proxy Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.250:2018-04-01
<a href="#">Observed or Suspected Patient Injection into Vascular Line Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.251:2018-04-01
<a href="#">Epidermolysis Bullosa Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.252:2018-04-01
<a href="#">Pus Present in Specimen Site and Matching Organism in Blood and Specimen Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.253:2018-04-01
<a href="#">COVID-19 Section (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01
<a href="#">NHSN COVID-19 Condition Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.270:2021-01-01
<a href="#">HAI Central-Line Insertion Practice Numerator Report (V7)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.36:2025-05-01
<a href="#">Procedure Details Section in a CLIP Report</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.42
<a href="#">Procedure Details Clinical Statement in a CLIP Report</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.155
<a href="#">PICC/IV Team</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.148
<a href="#">Recorder Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.159
<a href="#">Reason for Procedure Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.158

Template Title	Template Type	templateId
<a href="#">Guidewire Used Clinical Statement</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.129
<a href="#">Infection Risk Factors Section in a CLIP Report (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.34:2014-12-01
<a href="#">Central-Line Insertion Practice Clinical Statement (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.116:2014-12-01
<a href="#">Solutions Dried Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.163
<a href="#">Central-Line Insertion Preparation Organizer (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.179:2014-12-01
<a href="#">Sterile Barriers Applied Clinical Statement</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.167
<a href="#">Hand Hygiene Performed Clinical Statement</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.130
<a href="#">Skin-Preparation Solutions Applied Organizer (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.183:2014-12-01
<a href="#">Skin Preparation Clinical Statement (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.162:2014-12-01
<a href="#">Contraindicated Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.118:2014-12-01
<a href="#">Contraindication Type Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.216:2014-12-01
<a href="#">Antimicrobial Coated Catheter Used Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.217:2014-12-01
<a href="#">HAI Evidence of Infection (Dialysis) Report (V11)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.37:2025-05-01
<a href="#">Findings Section in an Infection-Type Report</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.45
<a href="#">Pathogen Identified Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.145
<a href="#">MDRO/CDI Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.142
<a href="#">Findings Organizer</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.182
<a href="#">Pathogen Ranking Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.147
<a href="#">Pathogen Identified Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.145
<a href="#">Drug-Susceptibility Test Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.126
<a href="#">Details Section in an Evidence of Infection (Dialysis) Report (V6)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.41:2019-04-01
<a href="#">Death Observation in an Evidence of Infection (Dialysis) Report</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.121
<a href="#">Criteria of Diagnosis Organizer</a>	entry	urn:oid:2.16.840.1.113883.10.20.5

Template Title	Template Type	templateId
		.6.180
<a href="#">Criterion of Diagnosis Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.119
<a href="#">Hospital Admission Clinical Statement</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.133
<a href="#">Dialysis Clinic Admission Clinical Statement</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.124
<a href="#">Loss of Vascular Access Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.203
<a href="#">Infection Indicator Organizer (V5)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.181:2019-04-01
<a href="#">IV Antifungal Start Clinical Statement</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.141
<a href="#">IV Antibiotic Start Clinical Statement (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.140:2019-04-01
<a href="#">Type of Antimicrobial Start Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.230:2015-10-01
<a href="#">Blood Sample Collected for Culture Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.239:2016-08-01
<a href="#">Positive Blood Culture Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.149:2019-04-01
<a href="#">Suspected Source Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.168
<a href="#">Imputability Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.134
<a href="#">Blood Collection Location</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.219:2014-12-01
<a href="#">Pus, Redness, or Increased Swelling Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.157:2019-04-01
<a href="#">Risk Factors Section in an Evidence of Infection (Dialysis) Report (V5)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.37:2023-12-01
<a href="#">Vascular Access Type Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.172
<a href="#">Buttonhole Cannulation Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.115
<a href="#">Dialysis Patient Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.125
<a href="#">Transient Patient Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.169
<a href="#">Vascular Access Type Used on Day of Event Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.293:2023-02-01
<a href="#">HAI Laboratory-Identified Organism (LIO) Report (V7)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.38:2025-05-01
<a href="#">Encounters Section in a LIO Report (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.44:2014-12-01

Template Title	Template Type	templateId
<a href="#">Prior Discharge Encounter (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.151:2014-12-01
<a href="#">Last Physical Overnight Location Act</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.227:2014-12-01
<a href="#">Last Physical Overnight Location Encounter</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.220:2014-12-01
<a href="#">Other Facility Discharge Act</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.228:2014-12-01
<a href="#">Other Facility Discharge Encounter</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.218:2014-12-01
<a href="#">Findings Section in a LIO Report (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.46:2014-12-01
<a href="#">Pathogen Identified Observation (LIO) (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.146:2014-12-01
<a href="#">Specimen Collection Procedure (LIO)</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.165
<a href="#">Specimen Collection Encounter (LIO)</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.164
<a href="#">Bacterial Isolate Tested for Carbapenemase Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.222:2014-12-01
<a href="#">Carbapenemase Test Organizer</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.223:2014-12-01
<a href="#">Carbapenemase Test Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.224:2014-12-01
<a href="#">Positive Test for Carbapenemase Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.225:2014-12-01
<a href="#">Carbapenemase Type Identified Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.226:2014-12-01
<a href="#">HAI Population Summary Report Generic Constraints</a>	document	urn:oid:2.16.840.1.113883.10.20.5.4.28
<a href="#">HAI Procedure Denominator Report (V7)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.35.2:2025-05-01
<a href="#">Infection Risk Factors Section in a Procedure Report</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.35
<a href="#">ASA Class Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.113
<a href="#">Weight Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.173
<a href="#">Height Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.131
<a href="#">Trauma Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.170
<a href="#">Diabetes Mellitus Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.123
<a href="#">Procedure Risk Factors Clinical Statement in a Procedure</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.156

Template Title	Template Type	templateId
<a href="#">Report</a>		
<a href="#">Wound Class Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.174
<a href="#">Endoscope Used Clinical Statement</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.128
<a href="#">Duration of Labor Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.127
<a href="#">Procedure Details Section in a Procedure Report (V2)</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.43.2
<a href="#">Procedure Details Clinical Statement in a Procedure Report (V2)</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.153.2
<a href="#">Anesthesia Administration Clinical Statement</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.112
<a href="#">Closure Technique Procedure</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.117
<a href="#">Spinal Fusion Level Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.166
<a href="#">Revision Associated with Prior Infection Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.204
<a href="#">HAI Single-Person Report Generic Constraints (V6)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01
<a href="#">NHSN Social History Section (V4)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.81:2025-05-01
<a href="#">Interpreter Needed Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.300:2024-05-01
<a href="#">Interpreter Used by Patient This Encounter Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.301:2024-05-01
<a href="#">Sex</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.305:2025-05-01
<a href="#">HAI Surgical Site Infection Report (SSI) (V8)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.33.2:2025-05-01
<a href="#">Findings Section in an Infection-Type Report</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.45
<a href="#">Pathogen Identified Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.145
<a href="#">MDRO/CDI Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.142
<a href="#">Findings Organizer</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.182
<a href="#">Pathogen Ranking Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.147
<a href="#">Pathogen Identified Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.145
<a href="#">Drug-Susceptibility Test Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.126

Template Title	Template Type	templateId
<a href="#">Infection Details Section in an SSI Report (V2)</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.39.2
<a href="#">Death Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.120
<a href="#">Infection Contributed to Death Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.136
<a href="#">Infection-Type Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.139
<a href="#">Bloodstream Infection Evidence Type Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.114
<a href="#">Secondary Bloodstream Infection Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.160
<a href="#">Infection Condition Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.135
<a href="#">Occasion of HAI Detection Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.144
<a href="#">Criteria of Diagnosis Organizer</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.180
<a href="#">Criterion of Diagnosis Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.119
<a href="#">Procedure Details Clinical Statement in an Infection-Type Report</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.154
<a href="#">Infection Present at the Time of Surgery Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.205
<a href="#">SSI Detected Using Toolkit Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.206
<a href="#">COVID-19 Section (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01
<a href="#">NHSN COVID-19 Condition Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.270:2021-01-01
<a href="#">HAI Urinary Tract Infection Numerator Report (UTI) (V7)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.34:2025-05-01
<a href="#">Infection Details Section in a UTI Report</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.40
<a href="#">Death Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.120
<a href="#">Infection Contributed to Death Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.136
<a href="#">Post-Procedure Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.150
<a href="#">Procedure Details Clinical Statement in an Infection-Type Report</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.154
<a href="#">Infection-Type Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.139



Template Title	Template Type	templateId
<a href="#">Bloodstream Infection Evidence Type Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.114
<a href="#">Secondary Bloodstream Infection Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.160
<a href="#">Infection Condition Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.135
<a href="#">Occasion of HAI Detection Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.144
<a href="#">Criteria of Diagnosis Organizer</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.180
<a href="#">Criterion of Diagnosis Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.119
<a href="#">Findings Section in an Infection-Type Report</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.45
<a href="#">Pathogen Identified Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.145
<a href="#">MDRO/CDI Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.142
<a href="#">Findings Organizer</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.182
<a href="#">Pathogen Ranking Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.147
<a href="#">Pathogen Identified Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.145
<a href="#">Drug-Susceptibility Test Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.126
<a href="#">COVID-19 Section (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01
<a href="#">NHSN COVID-19 Condition Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.270:2021-01-01
<a href="#">Infection Risk Factors Section in a UTI Report (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.36:2025-05-01
<a href="#">Urinary Catheter Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.171
<a href="#">Device Insertion Time and Location Procedure</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.122
<a href="#">History of Object Presence Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.132
<a href="#">Neurogenic Bladder Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.304:2025-05-01
<a href="#">Neurogenic Bladder Diagnosis</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.306:2025-05-01
<a href="#">Spinal Cord Injury Diagnosis</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.307:2025-05-01
<a href="#">Healthcare Associated Infection Report</a>	document	urn:oid:2.16.840.1.113883.10.20.5.4.25



Template Title	Template Type	templateId
<a href="#">Healthcare Personnel Influenza Vaccination (HP-FLU) Summary Report</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.50:2017-04-01
<a href="#">Summary Data Section (HP-FLU)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.58:2017-04-01
<a href="#">Summary Encounter (HP-FLU)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.241:2017-04-01
<a href="#">Summary Data Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.185
<a href="#">Vaccination Type Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.242:2017-04-01
<a href="#">NHSN Comment Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01
<a href="#">NHSN Comment</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01
<a href="#">Hemovigilance (HV) Summary Report (V2)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.49:2016-08-01
<a href="#">Summary Data Section (HV) (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.57:2016-08-01
<a href="#">No Hemovigilance Adverse Reactions Reported This Month Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.232:2015-10-01
<a href="#">No Hemovigilance Incidents Reported This Month Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.233:2015-10-01
<a href="#">Summary Encounter (HV) (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.234:2016-08-01
<a href="#">Summary Data Observation (HV)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.235:2015-10-01
<a href="#">Facility Transfuses Blood Products Treated with Pathogen Reduction Technology Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.236:2016-08-01
<a href="#">Blood Product Usage Summary Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.237:2016-08-01
<a href="#">ISBT Product Code Summary Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.238:2016-08-01
<a href="#">Pathogen Reduced Apheresis Platelet Usage Summary Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.240:2016-08-01
<a href="#">ISBT Product Code Summary Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.238:2016-08-01
<a href="#">Intensive Care Unit (ICU) Summary Report (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.40:2018-04-01
<a href="#">Summary Data Section</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.47
<a href="#">Summary Encounter</a>	entry	urn:oid:2.16.840.1.113883.10.20.5

Template Title	Template Type	templateId
		.6.184
<a href="#">Summary Data Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.185
<a href="#">Report No Events Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01
<a href="#">Report No Events</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01
<a href="#">Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report [V6]</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.58:2025-05-01
<a href="#">NHSN Comment Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01
<a href="#">NHSN Comment</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01
<a href="#">Encounters Section in a LOS/Men Denominator</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.71:2019-04-01
<a href="#">Location Within Facility Encounter</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.262:2019-04-01
<a href="#">Risk Factors Section in a LOS/Men Denominator</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.72:2019-04-01
<a href="#">Infection Risk Factors Measurement Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.137
<a href="#">Gestational Age at Birth Observation [V2]</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.255:2019-04-01
<a href="#">Late Onset Sepsis/Meningitis Event (LOS) Report [V7]</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.5.53:2025-05-01
<a href="#">Findings Section in an Infection-Type Report</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.45
<a href="#">Pathogen Identified Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.145
<a href="#">MDRO/CDI Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.142
<a href="#">Findings Organizer</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.182
<a href="#">Pathogen Ranking Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.147
<a href="#">Pathogen Identified Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.145
<a href="#">Drug-Susceptibility Test Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.126
<a href="#">NHSN Comment Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01
<a href="#">NHSN Comment</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01
<a href="#">Infection Details in Late Onset Sepsis Report</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.64:2018-04-01

Template Title	Template Type	templateId
<a href="#">Death Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.120
<a href="#">Infection Contributed to Death Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.136
<a href="#">Infection-Type Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.139
<a href="#">Bloodstream Infection Evidence Type Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.114
<a href="#">Secondary Bloodstream Infection Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.160
<a href="#">Infection Condition Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.135
<a href="#">Occasion of HAI Detection Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.144
<a href="#">Criteria of Diagnosis Organizer</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.180
<a href="#">Criterion of Diagnosis Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.119
<a href="#">Inborn/Outborn Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.257:2018-04-01
<a href="#">Risk Factors Section in a LOS/Men Event (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.65:2019-04-01
<a href="#">Infection Risk Factors Measurement Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.137
<a href="#">Infection Risk Factors Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.138
<a href="#">Device Insertion Time and Location Procedure</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.122
<a href="#">Gestational Age at Birth Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.255:2019-04-01
<a href="#">Neonatal Intensive Care Unit (NICU) Summary Report (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.41:2018-04-01
<a href="#">Summary Data Section (NICU) (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.48:2018-04-01
<a href="#">Summary Encounter (NICU)</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.191
<a href="#">Summary Data Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.185
<a href="#">Report No Events Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01
<a href="#">Report No Events</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01
<a href="#">Outpatient Procedure Component Denominator for Same Day Outcome Measures Report</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.55:2019-04-01
<a href="#">Summary Data Section</a>	section	urn:oid:2.16.840.1.113883.10.20.5

Template Title	Template Type	templateId
		.5.47
<a href="#">Summary Encounter</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.184
<a href="#">Summary Data Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.185
<a href="#">NHSN Comment Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01
<a href="#">NHSN Comment</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01
<a href="#">Report No Events Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01
<a href="#">Report No Events</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01
<a href="#">Outpatient Procedure Component Same Day Outcome Measures Event Report (V6)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.54:2025-05-01
<a href="#">NHSN Comment Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01
<a href="#">NHSN Comment</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01
<a href="#">Same Day Outcome Measures Event Details Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.66:2019-04-01
<a href="#">Same Day Outcome Measures Organizer (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.212:2019-04-01
<a href="#">Same Day Outcome Measure Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.208:2019-04-01
<a href="#">Outpatient Procedure Surgical Site Infection (SSI) Event Report (V6)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.57:2025-05-01
<a href="#">NHSN Comment Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01
<a href="#">NHSN Comment</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01
<a href="#">Infection Details Section in an OPC SSI Report</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.69:2019-04-01
<a href="#">Infection-Type Observation in an OPC SSI Event</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.263:2019-04-01
<a href="#">Infection Condition Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.135
<a href="#">Criteria of Diagnosis Organizer</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.180
<a href="#">Criterion of Diagnosis Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.119
<a href="#">SSI Detection Method</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.261:2019-04-01
<a href="#">Procedure Details in an OPC SSI Event</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.265:2019-04-01

Template Title	Template Type	templateId
<a href="#">Findings Section in an OPC SSI Report</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.70:2019-04-01
<a href="#">Pathogen Identified Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.145
<a href="#">Findings Organizer</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.182
<a href="#">Pathogen Ranking Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.147
<a href="#">Pathogen Identified Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.145
<a href="#">Drug-Susceptibility Test Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.126
<a href="#">Prevention Process and Outcome Measures (POM) Summary Report (V4)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.43:2022-04-01
<a href="#">Report No Events Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01
<a href="#">Report No Events</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01
<a href="#">Summary Data Section (POM) (V3)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.49:2022-04-01
<a href="#">Summary Encounter (POM)</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.193
<a href="#">Summary Data Observation (POM)</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.192
<a href="#">Summary Data Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.185
<a href="#">Primary C. Difficile Testing Method This Quarter</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.221:2014-12-01
<a href="#">Inpatient Rehabilitation (IRF) Unit in Facility</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.271:2022-04-01
<a href="#">Inpatient Psychiatric (IPF) Unit in Facility</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.272:2022-04-01
<a href="#">Specialty Care Area (SCA) Summary Report (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.42:2018-04-01
<a href="#">Summary Data Section</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.47
<a href="#">Summary Encounter</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.184
<a href="#">Summary Data Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.185
<a href="#">Report No Events Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01
<a href="#">Report No Events</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01
<a href="#">Vascular Access Type Report (VAT)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.

Template Title	Template Type	templateId
<a href="#">Summary Report (V3)</a>		5.45:2018-04-01
<a href="#">Summary Data Section (VAT)</a>	section	urn:oid:2.16.840.1.113883.10.20.5.50
<a href="#">Summary Encounter (VAT)</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.196
<a href="#">Summary Data Observation (VAT)</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.195
<a href="#">Summary Data Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.185
<a href="#">NHSN Comment Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01
<a href="#">NHSN Comment</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01
<a href="#">Report No Events Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01
<a href="#">Report No Events</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01
<a href="#">Ventilator Associated Event (VAE) Report (V7)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.5.51:2025-05-01
<a href="#">Findings Section in an Infection-Type Report</a>	section	urn:oid:2.16.840.1.113883.10.20.5.5.45
<a href="#">Pathogen Identified Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.145
<a href="#">MDRO/CDI Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.142
<a href="#">Findings Organizer</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.182
<a href="#">Pathogen Ranking Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.147
<a href="#">Pathogen Identified Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.145
<a href="#">Drug-Susceptibility Test Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.126
<a href="#">Infection Details Section in a VAE Report</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.59:2017-04-01
<a href="#">Death Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.120
<a href="#">Infection Contributed to Death Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.136
<a href="#">Post-Procedure Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.150
<a href="#">Procedure Details Clinical Statement in an Infection-Type Report</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.154
<a href="#">Infection-Type Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.139

Template Title	Template Type	templateId
<a href="#">Bloodstream Infection Evidence Type Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.114
<a href="#">Secondary Bloodstream Infection Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.160
<a href="#">Infection Condition Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.135
<a href="#">Occasion of HAI Detection Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.144
<a href="#">Criteria of Diagnosis Organizer</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.180
<a href="#">Criterion of Diagnosis Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.5.6.119
<a href="#">Risk Factors Section in a VAE Report</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.60:2017-04-01
<a href="#">Mechanical Ventilation Initiation Act</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.244:2017-04-01
<a href="#">APRV or Related at Time of VAE Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.248:2017-04-01
<a href="#">NHSN Comment Section</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01
<a href="#">NHSN Comment</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01
<a href="#">COVID-19 Section (V2)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01
<a href="#">NHSN COVID-19 Condition Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.5.6.270:2021-01-01
<a href="#">HAI Section Generic Constraints</a>	section	urn:oid:2.16.840.1.113883.10.20.5.4.26



## 5 VALUE SETS IN THIS GUIDE

**Table 563: Value Sets**

Name	OID	URL
<a href="#">Codes for Antimicrobial Resistance Option (ARO) Summary Data</a>	urn:oid:2.16.840.1.113883.10.20.5.9.8	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.8/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.8/expansion</a>
<a href="#">Codes for Antimicrobial Usage, Pharmacy (AUP) Summary Data</a>	urn:oid:2.16.840.1.113883.10.20.5.9.9	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.9/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.9/expansion</a>
<a href="#">Codes for Healthcare Personnel Influenza Vaccination (HP FLU) Summary Data</a>	urn:oid:2.16.840.1.113883.10.20.5.9.10	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.10/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.10/expansion</a>
<a href="#">Codes for Hemovigilance (HV) Summary Data</a>	urn:oid:2.16.840.1.113883.10.20.5.9.11	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.11/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.11/expansion</a>
<a href="#">Codes for Intensive Care Unit (ICU) Summary Data</a>	urn:oid:2.16.840.1.113883.10.20.5.9.12	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.12/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.12/expansion</a>
<a href="#">Codes for Neonatal Intensive Care Unit (NICU) Summary Data</a>	urn:oid:2.16.840.1.113883.10.20.5.9.13	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.13/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.13/expansion</a>
<a href="#">Codes for Outpatient Procedure Component Same Day Outcome Measures Summary Data</a>	urn:oid:2.16.840.1.113883.10.20.5.9.32	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.32/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.32/expansion</a>
<a href="#">Codes for Prevention Process and Outcome Measures (POM) Summary Data</a>	urn:oid:2.16.840.1.113883.10.20.5.9.15	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.15/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.15/expansion</a>
<a href="#">Codes for Specialty Care Area (SCA) Summary Data</a>	urn:oid:2.16.840.1.113883.10.20.5.9.16	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.16/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.16/expansion</a>
<a href="#">Codes for Vascular Access Type (Dialysis) Summary Data</a>	urn:oid:2.16.840.1.113883.10.20.5.9.17	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.17/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.17/expansion</a>
<a href="#">Detailed Ethnicity</a>	urn:oid:2.16.840.1.114222.4.11.877	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.877/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.877/expansion</a>
<a href="#">Ethnicity</a>	urn:oid:2.16.840.1.114222.4.11.837	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.837/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.837/expansion</a>
<a href="#">Federal Administrative Sex</a>	urn:oid:2.16.840.1.113762.1.4.1021.121	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.121/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.121/expansion</a>
<a href="#">HealthcarePersonnelType</a>	urn:oid:2.16.840.1.113883.10.20.5.9.6	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.6/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.6/expansion</a>
<a href="#">NHSN Abridged Primary Language List</a>	urn:oid:2.16.840.1.114222.24.7.1	<a href="https://www.cdc.gov/nhsn/pdfs/NHSN-Abridged-Primary-Language-">https://www.cdc.gov/nhsn/pdfs/NHSN-Abridged-Primary-Language-</a>



Name	OID	URL
		<a href="#">List.xlsx</a>
<a href="#">NHSN COVID19 Case Classification</a>	urn:oid:2.16.840.1.113883.10.20.5.9.40	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.40/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.40/expansion</a>
<a href="#">NHSN Cryoprecipitate (24)</a>	urn:oid:2.16.840.1.114222.4.11.73.15	N/A
<a href="#">NHSN Cryoprecipitate/Psoralen-Treated (44)</a>	urn:oid:2.16.840.1.114222.4.11.75.02	N/A
<a href="#">NHSN Cryoprecipitate/Riboflavin-Treated (45)</a>	urn:oid:2.16.840.1.114222.4.11.75.03	N/A
<a href="#">NHSN Pathogen Reduced Apheresis Platelet Usage</a>	urn:oid:2.16.840.1.113883.10.20.5.9.5	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.5/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.5/expansion</a>
<a href="#">NHSN Plasma/Apheresis/Psoralen-Treated (35)</a>	urn:oid:2.16.840.1.114222.4.11.73.26	N/A
<a href="#">NHSN Plasma/Apheresis/Riboflavin-Treated (36)</a>	urn:oid:2.16.840.1.114222.4.11.73.27	N/A
<a href="#">NHSN Plasma/Apheresis/Total (23)</a>	urn:oid:2.16.840.1.114222.4.11.73.14	N/A
<a href="#">NHSN Plasma/Whole Blood Derived/Psoralen-Treated (32)</a>	urn:oid:2.16.840.1.114222.4.11.73.23	N/A
<a href="#">NHSN Plasma/Whole Blood Derived/Riboflavin-Treated (33)</a>	urn:oid:2.16.840.1.114222.4.11.73.24	N/A
<a href="#">NHSN Plasma/Whole Blood Derived/Total (22)</a>	urn:oid:2.16.840.1.114222.4.11.73.13	N/A
<a href="#">NHSN Platelets/Apheresis/Irradiated (19)</a>	urn:oid:2.16.840.1.114222.4.11.73.10	N/A
<a href="#">NHSN Platelets/Apheresis/Irradiated or Leukocyte Reduced (21)</a>	urn:oid:2.16.840.1.114222.4.11.73.12	N/A
<a href="#">NHSN Platelets/Apheresis/Leukocyte Reduced (20)</a>	urn:oid:2.16.840.1.114222.4.11.73.11	N/A
<a href="#">NHSN Platelets/Apheresis/Not Irradiated or Leukocyte Reduced (18)</a>	urn:oid:2.16.840.1.114222.4.11.73.09	N/A
<a href="#">NHSN Platelets/Apheresis/Psoralen-Treated (29)</a>	urn:oid:2.16.840.1.114222.4.11.73.20	N/A
<a href="#">NHSN Platelets/Apheresis/Psoralen-Treated and In Plasma (46)</a>	urn:oid:2.16.840.1.114222.4.11.75.04	N/A
<a href="#">NHSN Platelets/Apheresis/Psoralen-Treated and In Platelet Additive Solution (47)</a>	urn:oid:2.16.840.1.114222.4.11.75.05	N/A

<b>Name</b>	<b>OID</b>	<b>URL</b>
<a href="#">NHSN Platelets/Apheresis/Riboflavin-Treated (30)</a>	urn:oid:2.16.840.1.114222.4.11.7321	N/A
<a href="#">NHSN Platelets/Apheresis/Riboflavin-Treated and In Plasma (48)</a>	urn:oid:2.16.840.1.114222.4.11.7506	N/A
<a href="#">NHSN Platelets/Apheresis/Riboflavin-Treated and In Platelet Additive Solution (49)</a>	urn:oid:2.16.840.1.114222.4.11.7507	N/A
<a href="#">NHSN Platelets/Whole Blood Derived/Irradiated (14)</a>	urn:oid:2.16.840.1.114222.4.11.7305	N/A
<a href="#">NHSN Platelets/Whole Blood Derived/Irradiated and Leukocyte Reduced (16)</a>	urn:oid:2.16.840.1.114222.4.11.7307	N/A
<a href="#">NHSN Platelets/Whole Blood Derived/Leukocyte Reduced (15)</a>	urn:oid:2.16.840.1.114222.4.11.7306	N/A
<a href="#">NHSN Platelets/Whole Blood Derived/Not Irradiated or Leukocyte Reduced (13)</a>	urn:oid:2.16.840.1.114222.4.11.7304	N/A
<a href="#">NHSN Platelets/Whole Blood Derived/Psoralen-Treated (26)</a>	urn:oid:2.16.840.1.114222.4.11.7317	N/A
<a href="#">NHSN Platelets/Whole Blood Derived/Riboflavin-Treated (27)</a>	urn:oid:2.16.840.1.114222.4.11.7318	N/A
<a href="#">NHSN Red Blood Cells/Apheresis/Irradiated (9)</a>	urn:oid:2.16.840.1.114222.4.11.7300	N/A
<a href="#">NHSN Red Blood Cells/Apheresis/Irradiated or Leukocyte Reduced (11)</a>	urn:oid:2.16.840.1.114222.4.11.7302	N/A
<a href="#">NHSN Red Blood Cells/Apheresis/Leukocyte Reduced (10)</a>	urn:oid:2.16.840.1.114222.4.11.7301	N/A
<a href="#">NHSN Red Blood Cells/Apheresis/Not Irradiated or Leukocyte Reduced (8)</a>	urn:oid:2.16.840.1.114222.4.11.7299	N/A
<a href="#">NHSN Red Blood Cells/Apheresis/Riboflavin-Treated (42)</a>	urn:oid:2.16.840.1.114222.4.11.7501	N/A
<a href="#">NHSN Red Blood Cells/Apheresis/S-303-Treated (41)</a>	urn:oid:2.16.840.1.114222.4.11.7500	N/A
<a href="#">NHSN Red Blood Cells/Whole Blood Derived/Irradiated (4)</a>	urn:oid:2.16.840.1.114222.4.11.7295	N/A
<a href="#">NHSN Red Blood Cells/Whole Blood Derived/Irradiated and Leukocyte Reduced (6)</a>	urn:oid:2.16.840.1.114222.4.11.7297	N/A
<a href="#">NHSN Red Blood Cells/Whole Blood Derived/Leukocyte Reduced</a>	urn:oid:2.16.840.1.114222.4.11.7296	N/A

Name	OID	URL
<a href="#">(5)</a>		
<a href="#">NHSN Red Blood Cells/Whole Blood Derived/Not Irradiated or Leukocyte Reduced (3)</a>	urn:oid:2.16.840.1.114222.4.11.7294	N/A
<a href="#">NHSN Red Blood Cells/Whole Blood Derived/Riboflavin-Treated</a>	urn:oid:2.16.840.1.114222.4.11.7499	N/A
<a href="#">NHSN Red Blood Cells/Whole Blood Derived/S-303-Treated</a>	urn:oid:2.16.840.1.114222.4.11.7498	N/A
<a href="#">NHSN Whole Blood Total (1)</a>	urn:oid:2.16.840.1.114222.4.11.7292	N/A
<a href="#">NHSNAntimicrobialAgentAURPCode</a>	urn:oid:2.16.840.1.114222.4.11.3360	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3360/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3360/expansion</a>
<a href="#">NHSNASAClassCode</a>	urn:oid:2.16.840.1.113883.13.10	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.10/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.10/expansion</a>
<a href="#">NHSNBloodCollectionLocation</a>	urn:oid:2.16.840.1.114222.4.11.7237	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7237/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7237/expansion</a>
<a href="#">NHSNBloodStreamInfectionEvidenceTypeCode</a>	urn:oid:2.16.840.1.113883.13.7	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.7/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.7/expansion</a>
<a href="#">NHSNCarbaDetectType</a>	urn:oid:2.16.840.1.114222.4.11.7241	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7241/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7241/expansion</a>
<a href="#">NHSNCarbaTestMethod</a>	urn:oid:2.16.840.1.114222.4.11.7240	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7240/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7240/expansion</a>
<a href="#">NHSNCatheterTypeCode</a>	urn:oid:2.16.840.1.114222.4.11.3185	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3185/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3185/expansion</a>
<a href="#">NHSNCdiffTestMethod</a>	urn:oid:2.16.840.1.114222.4.11.7242	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7242/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7242/expansion</a>
<a href="#">NHSNClosureTechniqueCode</a>	urn:oid:2.16.840.1.114222.4.11.6051	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6051/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6051/expansion</a>
<a href="#">NHSNContraindicationType</a>	urn:oid:2.16.840.1.114222.4.11.7239	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7239/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7239/expansion</a>
<a href="#">NHSNCriterionOfDiagnosisCode</a>	urn:oid:2.16.840.1.114222.4.11.3195	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3195/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3195/expansion</a>
<a href="#">NHSNDrugSusceptibilityFindingCode</a>	urn:oid:2.16.840.1.113883.13.13	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.13/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.13/expansion</a>
<a href="#">NHSNDrugSusceptibilityTestMethod</a>	urn:oid:2.16.840.1.113883.10.20.5.9.4	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.4/e">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.4/e</a>

Name	OID	URL
		<a href="#">xpansion</a>
<a href="#">NHSNDrugSusceptibilityTestsCode</a>	urn:oid:2.16.840.1.113883.13.15	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.15/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.15/expansion</a>
<a href="#">NHSNEligibilityCode</a>	urn:oid:2.16.840.1.114222.4.11.3248	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3248/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3248/expansion</a>
<a href="#">NHSNEncounterTypeCode</a>	urn:oid:2.16.840.1.113883.13.1	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.1/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.1/expansion</a>
<a href="#">NHSNGenotypicTestInterpretation</a>	urn:oid:2.16.840.1.113883.10.20.5.9.50	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.50/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.50/expansion</a>
<a href="#">NHSNGenotypicTests</a>	urn:oid:2.16.840.1.114222.24.7.280	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.24.7.280/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.24.7.280/expansion</a>
<a href="#">NHSNHealthcareServiceLocationCode</a>	urn:oid:2.16.840.1.113883.13.19	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.19/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.19/expansion</a>
<a href="#">NHSNHipReplacementCode</a>	urn:oid:2.16.840.1.113883.13.3	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.3/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.3/expansion</a>
<a href="#">NHSNInfectionConditionCode</a>	urn:oid:2.16.840.1.114222.4.11.3196	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3196/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3196/expansion</a>
<a href="#">NHSNInfectionRiskFactorsCode</a>	urn:oid:2.16.840.1.113883.13.6	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.6/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.6/expansion</a>
<a href="#">NHSNInfectionTypeCode</a>	urn:oid:2.16.840.1.113883.13.20	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.20/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.20/expansion</a>
<a href="#">NHSNInfluenzaVaccinationSetting</a>	urn:oid:2.16.840.1.113883.10.20.5.9.7	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.7/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.7/expansion</a>
<a href="#">NHSNInsertionSiteCode</a>	urn:oid:2.16.840.1.114222.4.11.3180	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3180/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3180/expansion</a>
<a href="#">NHSNKneeReplacementCode</a>	urn:oid:2.16.840.1.113883.13.4	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.4/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.4/expansion</a>
<a href="#">NHSNLastLocationEncounterTypeCode</a>	urn:oid:2.16.840.1.113883.10.20.5.9.3	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.3/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.3/expansion</a>
<a href="#">NHSNLOS/MENDischargeDisposition</a>	urn:oid:2.16.840.1.113883.10.20.5.9.30	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.30/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.30/expansion</a>
<a href="#">NHSNNeurogenicBladder</a>	urn:oid:2.16.840.1.113762.1.4.1190.94	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1190.94/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1190.94/expansion</a>

Name	OID	URL
<a href="#">NHSNOccasionOfDetectionCode</a>	urn:oid:2.16.840.1.113883.13.12	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.12/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.12/expansion</a>
<a href="#">NHSNOPCProcedureCategoryCode</a>	urn:oid:2.16.840.1.113883.10.20.5.9.34	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.34/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.34/expansion</a>
<a href="#">NHSNOrganismASTCode</a>	urn:oid:2.16.840.1.114222.4.11.3283	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3283/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3283/expansion</a>
<a href="#">NHSNPathogenCode</a>	urn:oid:2.16.840.1.113883.13.16	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.16/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.16/expansion</a>
<a href="#">NHSNPathogenCodeARO</a>	urn:oid:2.16.840.1.113762.1.4.1190.6	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1190.6/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1190.6/expansion</a>
<a href="#">NHSNPopulationCategoryCode</a>	urn:oid:2.16.840.1.114222.4.11.3234	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3234/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3234/expansion</a>
<a href="#">NHSNPopulationSummaryReportTypeCode</a>	urn:oid:2.16.840.1.114222.4.11.3595	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3595/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3595/expansion</a>
<a href="#">NHSNPreviousFacility</a>	urn:oid:2.16.840.1.114222.4.11.7238	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7238/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7238/expansion</a>
<a href="#">NHSNPreviousPatientLocation</a>	urn:oid:2.16.840.1.114222.4.11.7233	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7233/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7233/expansion</a>
<a href="#">NHSNProcedureCategoryCode</a>	urn:oid:2.16.840.1.113883.13.17	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.17/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.17/expansion</a>
<a href="#">NHSNReasonForInsertionCode</a>	urn:oid:2.16.840.1.114222.4.11.3182	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3182/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3182/expansion</a>
<a href="#">NHSNReportNoEventsAR</a>	urn:oid:2.16.840.1.113883.10.20.5.9.35	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.35/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.35/expansion</a>
<a href="#">NHSNReportNoEventsDialysis</a>	urn:oid:2.16.840.1.113883.10.20.5.9.22	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.22/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.22/expansion</a>
<a href="#">NHSNReportNoEventsICU</a>	urn:oid:2.16.840.1.113883.10.20.5.9.18	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.18/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.18/expansion</a>
<a href="#">NHSNReportNoEventsMDRO</a>	urn:oid:2.16.840.1.113883.10.20.5.9.21	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.21/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.21/expansion</a>
<a href="#">NHSNReportNoEventsMDROLTCF</a>	urn:oid:2.16.840.1.113883.10.20.5.1.9.1	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.1.9.1/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.1.9.1/expansion</a>
<a href="#">NHSNReportNoEventsNICU</a>	urn:oid:2.16.840.1.113883.10.20.5	<a href="https://vsac.nlm.nih.gov/valueset">https://vsac.nlm.nih.gov/valueset</a>

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<a href="#">NHSNReportNoEventsOPCSameDayOutcomeMeasures</a>	urn:oid:2.16.840.1.113883.10.20.5.9.33	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.33/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.33/ expansion</a>
<a href="#">NHSNReportNoEventsSCA</a>	urn:oid:2.16.840.1.113883.10.20.5.9.20	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.20/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.20/ expansion</a>
<a href="#">NHSNRoleOfPerformerCode</a>	urn:oid:2.16.840.1.114222.4.11.3181	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3181/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3181/ expansion</a>
<a href="#">NHSNRouteOfAdministrationAURPCode</a>	urn:oid:2.16.840.1.114222.4.11.3361	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3361/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3361/ expansion</a>
<a href="#">NHSNSameDayOutcomeMeasure</a>	urn:oid:2.16.840.1.114222.4.11.7214	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7214/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7214/ expansion</a>
<a href="#">NHSNSignificantPathogenCode</a>	urn:oid:2.16.840.1.114222.4.11.3194	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3194/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3194/ expansion</a>
<a href="#">NHSNSkinPreparationCode</a>	urn:oid:2.16.840.1.114222.4.11.3183	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3183/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3183/ expansion</a>
<a href="#">NHSNSpecimenTypeCode</a>	urn:oid:2.16.840.1.114222.4.11.3249	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3249/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3249/ expansion</a>
<a href="#">NHSNSpinalCordInjury</a>	urn:oid:2.16.840.1.113762.1.4.1190.95	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1190.95/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1190.95/ expansion</a>
<a href="#">NHSNSpinalFusionApproachCode</a>	urn:oid:2.16.840.1.113883.13.2	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.2/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.2/ expansion</a>
<a href="#">NHSNSpinalFusionLevelCode</a>	urn:oid:2.16.840.1.113883.13.11	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.11/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.11/ expansion</a>
<a href="#">NHSNSSIDetectionMethod</a>	urn:oid:2.16.840.1.113883.10.20.5.9.29	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.29/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.29/ expansion</a>
<a href="#">NHSNSSIDetectionMethodType</a>	urn:oid:2.16.840.1.113883.10.20.5.9.31	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.31/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.31/ expansion</a>
<a href="#">NHSNStaphAureusSpecificTest</a>	urn:oid:2.16.840.1.114222.4.11.7160	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7160/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7160/ expansion</a>
<a href="#">NHSNStaphAureusTestResults</a>	urn:oid:2.16.840.1.114222.4.11.6074	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6074/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6074/ expansion</a>
<a href="#">NHSNStartOrContinuation</a>	urn:oid:2.16.840.1.114222.4.11.7338	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7338/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7338/ expansion</a>

Name	OID	URL
		<a href="#">pansion</a>
<a href="#">NHSNSterileBarrierCode</a>	urn:oid:2.16.840.1.114222.4.11.3184	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3184/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3184/expansion</a>
<a href="#">NHSNSummaryBloodProductUsage</a>	urn:oid:2.16.840.1.114222.4.11.7353	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7353/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7353/expansion</a>
<a href="#">NHSNSuspectedSourceTypeCode</a>	urn:oid:2.16.840.1.114222.4.11.6008	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6008/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6008/expansion</a>
<a href="#">NHSNTimingCode</a>	urn:oid:2.16.840.1.114222.4.11.3247	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3247/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3247/expansion</a>
<a href="#">NHSNVascularAccessSiteCode</a>	urn:oid:2.16.840.1.114222.4.11.6042	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6042/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6042/expansion</a>
<a href="#">NHSNVascularAccessTypeCode</a>	urn:oid:2.16.840.1.114222.4.11.6007	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6007/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6007/expansion</a>
<a href="#">NHSNVascularSpecimenCollection Site</a>	urn:oid:2.16.840.1.113883.10.20.5.9.24	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.24/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.24/expansion</a>
<a href="#">NHSNWoundClassCode</a>	urn:oid:2.16.840.1.113883.13.9	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.9/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.9/expansion</a>
<a href="#">NullValues_UNK_NA</a>	urn:oid:2.16.840.1.113883.10.20.5.9.2	<a href="https://trifolia.lantanagroup.com/TerminologyManagement/ValueSet/View/2863">https://trifolia.lantanagroup.com/TerminologyManagement/ValueSet/View/2863</a>
<a href="#">NullValues_UNK_OTH</a>	urn:oid:2.16.840.1.113883.10.20.5.9.1	<a href="https://trifolia.lantanagroup.com/TerminologyManagement/ValueSet/View/2843">https://trifolia.lantanagroup.com/TerminologyManagement/ValueSet/View/2843</a>
<a href="#">Other or unknown or refused to answer</a>	urn:oid:2.16.840.1.113762.1.4.1021.103	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.103/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.103/expansion</a>
<a href="#">ProcedureAct statusCode</a>	urn:oid:2.16.840.1.113883.11.20.9.22	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.22/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.22/expansion</a>
<a href="#">Race Category Excluding Nulls</a>	urn:oid:2.16.840.1.113883.3.2074.1.1.3	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.2074.1.1.3/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.2074.1.1.3/expansion</a>
<a href="#">Race Value Set</a>	urn:oid:2.16.840.1.113883.1.11.14914	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.14914/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.14914/expansion</a>
<a href="#">Unknown or refused to answer</a>	urn:oid:2.16.840.1.113762.1.4.1021.102	<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.102/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.102/expansion</a>



## 6 CODE SYSTEMS IN THIS GUIDE

**Table 564: Code Systems**

Name	OID
Administrative Gender	urn:oid:2.16.840.1.113883.5.1
CDCNHSN	urn:oid:2.16.840.1.113883.6.277
CPT	urn:oid:2.16.840.1.113883.6.12
Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.113883.6.101
HL7ActClass	urn:oid:2.16.840.1.113883.5.6
HL7ActionCode	urn:oid:2.16.840.1.113883.5.4
HL7ActMood	urn:oid:2.16.840.1.113883.5.1001
HL7ActRelationshipType	urn:oid:2.16.840.1.113883.5.1002
HL7ActStatus	urn:oid:2.16.840.1.113883.5.14
HL7Confidentiality	urn:oid:2.16.840.1.113883.5.25
HL7ContextControl	urn:oid:2.16.840.1.113883.5.1057
HL7EntityClass	urn:oid:2.16.840.1.113883.5.41
HL7NullFlavor	urn:oid:2.16.840.1.113883.5.1008
HL7ParticipationType	urn:oid:2.16.840.1.113883.5.90
HL7RoleClass	urn:oid:2.16.840.1.113883.5.110
HSLOC	urn:oid:2.16.840.1.113883.6.259
ICD-10-CM	urn:oid:2.16.840.1.113883.6.90
ISBT-128	urn:oid:2.16.840.1.113883.6.18
ISO 639-3	urn:oid:1.0.639.3
LOINC	urn:oid:2.16.840.1.113883.6.1
ObservationInterpretation	urn:oid:2.16.840.1.113883.5.83
Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238
RxNorm	urn:oid:2.16.840.1.113883.6.88
SNOMED CT	urn:oid:2.16.840.1.113883.6.96
UCUM	urn:oid:2.16.840.1.113883.6.8



## 7 CHANGES FROM PREVIOUS VERSION

### 7.1 Outpatient Procedure Component Denominator for Procedure Report (V6)

Outpatient Procedure Component Denominator for Procedure Report (V6)  
(urn:hl7ii:2.16.840.1.113883.10.20.5.56:2025-05-01)

Change	Old	New
Status	Published	Draft
Name	Outpatient Procedure Component Denominator for Procedure Report (V5)	Outpatient Procedure Component Denominator for Procedure Report (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.5.56:2024-05-01	urn:hl7ii:2.16.840.1.113883.10.20.5.56:2025-05-01
Implied Template	HAI Single-Person Report Generic Constraints (V5) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2024-05-01)	HAI Single-Person Report Generic Constraints (V6) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01)
CONF #: 5566-30632 Modified	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.3" (CONF:5554-30632).	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30632).
CONF #: 5566-30641 Modified	SHALL contain exactly one [1..1] @extension="2024-05-01" (CONF:5554-30641).	SHALL contain exactly one [1..1] @extension="2025-05-01" (CONF:5566-30641).

## 7.2 HAI AUR Antimicrobial Resistance Option (ARO) Report (V10)

HAI AUR Antimicrobial Resistance Option (ARO) Report (V10)

(urn:hl7ii:2.16.840.1.113883.10.20.5.31:2025-05-01)

Change	Old	New
Status	Published	Draft
Name	HAI AUR Antimicrobial Resistance Option (ARO) Report (V9)	HAI AUR Antimicrobial Resistance Option (ARO) Report (V10)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.5.31:2024-05-01	urn:hl7ii:2.16.840.1.113883.10.20.5.31:2025-05-01
Implied Template	HAI Single-Person Report Generic Constraints (V5) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2024-05-01)	HAI Single-Person Report Generic Constraints (V6) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01)
CONF #: 5566-30541 Modified	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.3" (CONF:5554-30541).	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30541).
CONF #: 5566-30542 Modified	SHALL contain exactly one [1..1] @extension="2024-05-01" (CONF:5554-30542).	SHALL contain exactly one [1..1] @extension="2025-05-01" (CONF:5566-30542).

## 7.3 HAI Bloodstream Infection Report (BSI) (V9)

HAI Bloodstream Infection Report (BSI) (V9)

(urn:hl7ii:2.16.840.1.113883.10.20.5.32:2025-05-01)

Change	Old	New
Status	Published	Draft
Name	HAI Bloodstream Infection Report (BSI) (V8)	HAI Bloodstream Infection Report (BSI) (V9)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.5.32:2024-05-01	urn:hl7ii:2.16.840.1.113883.10.20.5.32:2025-05-01
Implied Template	HAI Single-Person Report Generic Constraints (V5) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2024-05-01)	HAI Single-Person Report Generic Constraints (V6) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01)
CONF #: 5566-28308 Modified	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.3" (CONF:5554-28308).	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-28308).
CONF #: 5566-28432 Modified	SHALL contain exactly one [1..1] @extension="2024-05-01" (CONF:5554-28432).	SHALL contain exactly one [1..1] @extension="2025-05-01" (CONF:5566-28432).

## 7.4 HAI Central-Line Insertion Practice Numerator Report (V7)

HAI Central-Line Insertion Practice Numerator Report (V7)

(urn:hl7ii:2.16.840.1.113883.10.20.5.36:2025-05-01)

Change	Old	New
Status	Published	Draft
Name	HAI Central-Line Insertion Practice Numerator Report (V6)	HAI Central-Line Insertion Practice Numerator Report (V7)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.5.36:2024-05-01	urn:hl7ii:2.16.840.1.113883.10.20.5.36:2025-05-01
Implied Template	HAI Single-Person Report Generic Constraints (V5) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2024-05-01)	HAI Single-Person Report Generic Constraints (V6) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01)
CONF #: 5566-30544 Modified	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.3" (CONF:5554-30544).	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30544).
CONF #: 5566-30284 Modified	SHALL contain exactly one [1..1] @extension="2024-05-01" (CONF:5554-30284).	SHALL contain exactly one [1..1] @extension="2025-05-01" (CONF:5566-30284).

## 7.5 HAI Evidence of Infection (Dialysis) Report (V11)

HAI Evidence of Infection (Dialysis) Report (V11)

(urn:hl7ii:2.16.840.1.113883.10.20.5.37:2025-05-01)

Change	Old	New
Status	Published	Draft
Name	HAI Evidence of Infection (Dialysis) Report (V10)	HAI Evidence of Infection (Dialysis) Report (V11)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.5.37:2024-05-01	urn:hl7ii:2.16.840.1.113883.10.20.5.37:2025-05-01
Implied Template	HAI Single-Person Report Generic Constraints (V5) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2024-05-01)	HAI Single-Person Report Generic Constraints (V6) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01)
CONF #: 5566-30675 Modified	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.3" (CONF:5554-30675).	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30675).
CONF #: 5566-30285 Modified	SHALL contain exactly one [1..1] @extension="2024-05-01" (CONF:5554-30285).	SHALL contain exactly one [1..1] @extension="2025-05-01" (CONF:5566-30285).

## 7.6 HAI Laboratory-Identified Organism (LIO) Report (V7)

HAI Laboratory-Identified Organism (LIO) Report (V7)

(urn:hl7ii:2.16.840.1.113883.10.20.5.38:2025-05-01)

Change	Old	New
Status	Published	Draft
Name	HAI Laboratory-Identified Organism (LIO) Report (V6)	HAI Laboratory-Identified Organism (LIO) Report (V7)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.5.38:2024-05-01	urn:hl7ii:2.16.840.1.113883.10.20.5.38:2025-05-01
Implied Template	HAI Single-Person Report Generic Constraints (V5) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2024-05-01)	HAI Single-Person Report Generic Constraints (V6) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01)
CONF #: 5566-30548 Modified	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.3" (CONF:5554-30548).	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30548).
CONF #: 5566-30286 Modified	SHALL contain exactly one [1..1] @extension="2024-05-01" (CONF:5554-30286).	SHALL contain exactly one [1..1] @extension="2025-05-01" (CONF:5566-30286).

## 7.7 HAI Procedure Denominator Report (V7)

HAI Procedure Denominator Report (V7)

(urn:hl7ii:2.16.840.1.113883.10.20.5.35.2:2025-05-01)

Change	Old	New
Status	Published	Draft
Name	HAI Procedure Denominator Report (V6)	HAI Procedure Denominator Report (V7)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.5.35.2:2024-05-01	urn:hl7ii:2.16.840.1.113883.10.20.5.35.2:2025-05-01
Implied Template	HAI Single-Person Report Generic Constraints (V5) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2024-05-01)	HAI Single-Person Report Generic Constraints (V6) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01)
CONF #: 5566-30310 Modified	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.3" (CONF:5554-30310).	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30310).
CONF #: 5566-31027 Modified	SHALL contain exactly one [1..1] @extension="2024-05-01" (CONF:5554-31027).	SHALL contain exactly one [1..1] @extension="2025-05-01" (CONF:5566-31027).

## 7.8 HAI Single-Person Report Generic Constraints (V6)

### HAI Single-Person Report Generic Constraints (V6)

(urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01)

Change	Old	New
Status	Published	Draft
Name	HAI Single-Person Report Generic Constraints (V5)	HAI Single-Person Report Generic Constraints (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2024-05-01	urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01
Description	<p>This template records the constraints for HAI single-person reports. It is used by all numerator reports covered by this guide. It is also used by the Procedure Denominator Report.</p> <p>A single-person report must conform to the Healthcare Associated Infection Report template. In addition, key data about the patient are recorded in the recordTarget element.</p> <p>* A patient identifier representing the facility-assigned patient ID is required. Other identifiers for the person can also be present, such as a United States Social Security Number (id/@root = 2.16.840.1.113883.4.1), a Medicare beneficiary identifier (id/@root = 2.16.840.1.113883.4.338), or secondary patient IDs (id/@root = the appropriate facility OID for patient IDs). If there isn't an available "other" identifier, then there should not be an id present for that type of identifier.</p> <p>* The patient name is optional; consult the NHSN reporting protocol and requirements.</p> <p>* Patient race is required and multiple races can be recorded, to represent an unknown race, set nullFlavor="UNK", to represent "declined to respond", set nullFlavor="ASKU".</p> <p>* Patient ethnicity is required and multiple ethnicities can be recorded, to represent an unknown ethnicity, set nullFlavor="UNK", to represent "declined to respond", set</p>	<p>This template records the constraints for HAI single-person reports. It is used by all numerator reports covered by this guide. It is also used by the Procedure Denominator Report.</p> <p>A single-person report must conform to the Healthcare Associated Infection Report template. In addition, key data about the patient are recorded in the recordTarget element.</p> <p>* A patient identifier representing the facility-assigned patient ID is required. Other identifiers for the person can also be present, such as a United States Social Security Number (id/@root = 2.16.840.1.113883.4.1), a Medicare beneficiary identifier (id/@root = 2.16.840.1.113883.4.338), or secondary patient IDs (id/@root = the appropriate facility OID for patient IDs). If there isn't an available "other" identifier, then there should not be an id present for that type of identifier.</p> <p>* The patient name is optional; consult the NHSN reporting protocol and requirements.</p> <p>* Patient race is required and multiple races can be recorded, to represent an unknown race, set nullFlavor="UNK", to represent "declined to respond", set nullFlavor="ASKU".</p> <p>* Patient ethnicity is required and multiple ethnicities can be recorded, to represent an unknown ethnicity, set nullFlavor="UNK", to represent "declined to respond", set</p>

Change	Old	New
	<p>nullFlavor="ASKU".</p> <p>* Patient language is required and multiple languages can be recorded, to represent languages not represented in the bound value set, set nullFlavor="OTH", to represent "choose not to disclose language", set nullFlavor="ASKU", to represent "unknown language", set nullFlavor="UNK".</p> <p>The report-specific requirements specify the encounter data to record for each single-person report type. These data always include an identifier for the reporting facility, and usually include the encounter type (inpatient or outpatient), the admission date or encounter date, and the facility unit identifier and type.</p> <p>The NHSN Social History section contains the Birth Sex Observation (required), the Gender Identity Observation (required), Interpreter Needed Observation (required), and Interpreter Used by Patient this Encounter Observation (required).</p> <p>Note: The section on "Template Ids in this Guide" includes a containment table showing all the entries within each report type.</p>	<p>nullFlavor="ASKU".</p> <p>* Patient language is required and multiple languages can be recorded, to represent languages not represented in the bound value set, set nullFlavor="OTH", to represent "choose not to disclose language", set nullFlavor="ASKU", to represent "unknown language", set nullFlavor="UNK".</p> <p>The report-specific requirements specify the encounter data to record for each single-person report type. These data always include an identifier for the reporting facility, and usually include the encounter type (inpatient or outpatient), the admission date or encounter date, and the facility unit identifier and type.</p> <p>The NHSN Social History section contains Sex (required), Interpreter Needed Observation (required), and Interpreter Used by Patient this Encounter Observation (required).</p> <p>Note: The section on "Template Ids in this Guide" includes a containment table showing all the entries within each report type.</p>
CONF #: 5554-22425 Removed	This administrativeGenderCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet Administrative Gender (HL7 V3) urn:oid:2.16.840.1.113883.1.11.1 DYNAMIC (CONF:5554-22425).	
CONF #: 5566-22424 Modified	This patient SHALL contain exactly one [1..1] administrativeGenderCode (CONF:5554-22424).	This patient SHALL NOT contain [0..0] administrativeGenderCode (CONF:5566-22424).
CONF #: 5566-30795 Modified	SHALL contain exactly one [1..1] @extension="2024-05-01" (CONF:5554-30795).	SHALL contain exactly one [1..1] @extension="2025-05-01" (CONF:5566-30795).

## 7.9 HAI Surgical Site Infection Report (SSI) (V8)

### HAI Surgical Site Infection Report (SSI) (V8)

(urn:hl7ii:2.16.840.1.113883.10.20.5.33.2:2025-05-01)

Change	Old	New
Status	Published	Draft
Name	HAI Surgical Site Infection Report (SSI) (V7)	HAI Surgical Site Infection Report (SSI) (V8)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.5.33.2:2024-05-01	urn:hl7ii:2.16.840.1.113883.10.20.5.33.2:2025-05-01
Implied Template	HAI Single-Person Report Generic Constraints (V5) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2024-05-01)	HAI Single-Person Report Generic Constraints (V6) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01)
CONF #: 5566-30312 Modified	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.3" (CONF:5554-30312).	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30312).
CONF #: 5566-30868 Modified	SHALL contain zero or one [0..1] @extension="2024-05-01" (CONF:5554-30868).	SHALL contain zero or one [0..1] @extension="2025-05-01" (CONF:5566-30868).

## 7.10 HAI Urinary Tract Infection Numerator Report (UTI) (V7)

### HAI Urinary Tract Infection Numerator Report (UTI) (V7)

(urn:hl7ii:2.16.840.1.113883.10.20.5.34:2025-05-01)

Change	Old	New
Status	Published	Draft
Name	HAI Urinary Tract Infection Numerator Report (UTI) (V6)	HAI Urinary Tract Infection Numerator Report (UTI) (V7)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.5.34:2024-05-01	urn:hl7ii:2.16.840.1.113883.10.20.5.34:2025-05-01
Implied Template	HAI Single-Person Report Generic Constraints (V5) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2024-05-01)	HAI Single-Person Report Generic Constraints (V6) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01)
CONF #: 5566-28320 Modified	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.3" (CONF:5554-28320).	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-28320).
CONF #: 5566-30873 Modified	SHALL contain exactly one [1..1] @extension="2024-05-01" (CONF:5554-30873).	SHALL contain exactly one [1..1] @extension="2025-05-01" (CONF:5566-30873).

## 7.11 Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report (V6)

Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report (V6)  
(urn:hl7ii:2.16.840.1.113883.10.20.5.58:2025-05-01)

Change	Old	New
Status	Published	Draft
Name	Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report (V5)	Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.5.58:2024-05-01	urn:hl7ii:2.16.840.1.113883.10.20.5.58:2025-05-01
Implied Template	HAI Single-Person Report Generic Constraints (V5) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2024-05-01)	HAI Single-Person Report Generic Constraints (V6) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01)
CONF #: 5566-30703 Modified	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.3" (CONF:5554-30703).	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30703).
CONF #: 5566-30711 Modified	SHALL contain exactly one [1..1] @extension="2024-05-01" (CONF:5554-30711).	SHALL contain exactly one [1..1] @extension="2025-05-01" (CONF:5566-30711).

## 7.12 Late Onset Sepsis/Meningitis Event (LOS) Report (V7)

Late Onset Sepsis/Meningitis Event (LOS) Report (V7)  
(urn:hl7ii:2.16.840.1.113883.10.20.5.53:2025-05-01)

Change	Old	New
Status	Published	Draft
Name	Late Onset Sepsis/Meningitis Event (LOS) Report (V6)	Late Onset Sepsis/Meningitis Event (LOS) Report (V7)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.5.53:2024-05-01	urn:hl7ii:2.16.840.1.113883.10.20.5.53:2025-05-01
Implied Template	HAI Single-Person Report Generic Constraints (V5) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2024-05-01)	HAI Single-Person Report Generic Constraints (V6) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01)
CONF #: 5566-30745 Modified	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.3" (CONF:5554-30745).	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30745).
CONF #: 5566-30973 Modified	SHALL contain exactly one [1..1] @extension="2024-05-01" (CONF:5554-30973).	SHALL contain exactly one [1..1] @extension="2025-05-01" (CONF:5566-30973).



## 7.13 Outpatient Procedure Component Same Day Outcome Measures Event Report (V6)

Outpatient Procedure Component Same Day Outcome Measures Event Report (V6)  
(urn:hl7ii:2.16.840.1.113883.10.20.5.54:2025-05-01)

Change	Old	New
Status	Published	Draft
Name	Outpatient Procedure Component Same Day Outcome Measures Event Report (V5)	Outpatient Procedure Component Same Day Outcome Measures Event Report (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.5.54:2024-05-01	urn:hl7ii:2.16.840.1.113883.10.20.5.54:2025-05-01
Implied Template	HAI Single-Person Report Generic Constraints (V5) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2024-05-01)	HAI Single-Person Report Generic Constraints (V6) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01)
CONF #: 5566-30992 Modified	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.3" (CONF:5554-30992).	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-30992).
CONF #: 5566-27 Modified	SHALL contain exactly one [1..1] @extension="2024-05-01" (CONF:5554-27).	SHALL contain exactly one [1..1] @extension="2025-05-01" (CONF:5566-27).

## 7.14 Outpatient Procedure Surgical Site Infection (SSI) Event Report (V6)

Outpatient Procedure Surgical Site Infection (SSI) Event Report (V6)  
(urn:hl7ii:2.16.840.1.113883.10.20.5.57:2025-05-01)

Change	Old	New
Status	Published	Draft
Name	Outpatient Procedure Surgical Site Infection (SSI) Event Report (V5)	Outpatient Procedure Surgical Site Infection (SSI) Event Report (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.5.57:2024-05-01	urn:hl7ii:2.16.840.1.113883.10.20.5.57:2025-05-01
Implied Template	HAI Single-Person Report Generic Constraints (V5) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2024-05-01)	HAI Single-Person Report Generic Constraints (V6) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01)
CONF #: 5566-46 Modified	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.3" (CONF:5554-46).	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-46).
CONF #: 5566-54 Modified	SHALL contain exactly one [1..1] @extension="2024-05-01" (CONF:5554-54).	SHALL contain exactly one [1..1] @extension="2025-05-01" (CONF:5566-54).

## 7.15 Ventilator Associated Event (VAE) Report (V7)

### Ventilator Associated Event (VAE) Report (V7)

(urn:hl7ii:2.16.840.1.113883.10.20.5.51:2025-05-01)

Change	Old	New
Status	Published	Draft
Name	Ventilator Associated Event (VAE) Report (V6)	Ventilator Associated Event (VAE) Report (V7)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.5.51:2024-05-01	urn:hl7ii:2.16.840.1.113883.10.20.5.51:2025-05-01
Implied Template	HAI Single-Person Report Generic Constraints (V5) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2024-05-01)	HAI Single-Person Report Generic Constraints (V6) (urn:hl7ii:2.16.840.1.113883.10.20.5.4.27:2025-05-01)
CONF #: 5566-113 Modified	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.3" (CONF:5554-113).	SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.4" (CONF:5566-113).
CONF #: 5566-123 Modified	SHALL contain exactly one [1..1] @extension="2024-05-01" (CONF:5554-123).	SHALL contain exactly one [1..1] @extension="2025-05-01" (CONF:5566-123).

## 7.16 Infection Risk Factors Section in a UTI Report (V2)

### Infection Risk Factors Section in a UTI Report (V2)

(urn:hl7ii:2.16.840.1.113883.10.20.5.5.36:2025-05-01)

Change	Old	New
Status	Published	Draft
Name	Infection Risk Factors Section in a UTI Report	Infection Risk Factors Section in a UTI Report (V2)
Oid	urn:oid:2.16.840.1.113883.10.20.5.5.36	urn:hl7ii:2.16.840.1.113883.10.20.5.5.36:2025-05-01
Description	In a UTI Report, the Infection Risk Factors Section contains a single Urinary Catheter Observation.	In a UTI Report, the Infection Risk Factors Section contains a Urinary Catheter Observation and a Neurogenic Bladder Observation.
CONF #: 5566-31120 Added		SHALL contain exactly one [1..1] @extension="2025-05-01" (CONF:5566-31120).
CONF #: 5566-31121 Added		SHALL contain exactly one [1..1] entry (CONF:5566-31121) such that it
CONF #: 5566-31140 Added		SHALL contain exactly one [1..1] observation (CONF:5566-31140).
CONF #: 5566-22299 Modified	This entry SHALL contain exactly one [1..1] observation (CONF:86-22299).	SHALL contain exactly one [1..1] observation (CONF:5566-22299).

## 7.17 NHSN Social History Section (V4)

NHSN Social History Section (V4) (urn:hl7ii:2.16.840.1.113883.10.20.5.5.81:2025-05-01)

Change	Old	New
Status	Published	Draft
Name	NHSN Social History Section (V3)	NHSN Social History Section (V4)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.5.5.81:2024-05-01	urn:hl7ii:2.16.840.1.113883.10.20.5.5.81:2025-05-01
Description	This section contains social history templates Birth Sex, Gender Identity, and templates dealing with the use of a language interpreter.	This section contains social history template Sex and templates dealing with the use of a language interpreter.
CONF #: 5554-11 Removed	SHALL contain at least one [1..*] entry (CONF:5554-11) such that it	
CONF #: 5554-12 Removed	SHALL contain exactly one [1..1] observation (CONF:5554-12).	
CONF #: 5566-18 Modified	SHALL contain exactly one [1..1] @extension="2024-05-01" (CONF:5554-18).	SHALL contain exactly one [1..1] @extension="2025-05-01" (CONF:5566-18).