

1	Status	Letter Ballot
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7	Submission Date	2024/05/18
8	Correction Number CP-2435	
9	Log Summary: Add concepts for WSI QC to segmentation properties	
10	Name of Standard	
11	PS3.16	
12	Rationale for Correction:	
13	Add codes for WSI QC.	
14	<i>[Ed.Note: The pattern of definitions of DCM codes follows the NCIt code pattern of "The region within a sample that is represented</i>	
15	<i>by ..." except that they use "area" instead of "region".]</i>	
16	<i>[Ed.Note: CRS Request ID#nnnn for new codes]</i>	
17	<i>[Ed.Note: CRS Request ID#nnnn to add existing codes to subset: 263496004, 56117007.]</i>	
18	Correction Wording:	

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Amend DICOM PS3.16 as follows (changes to existing text are bold and ~~underlined~~ for additions and ~~struckthrough~~ for removals):

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CID 7150 Segmentation Property Category

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Resources: HTML | FHIR JSON | FHIR XML | IHE SVS XML  
Keyword: SegmentationPropertyCategory  
FHIR Keyword: dicom-cid-7150-SegmentationPropertyCategory  
Type: Extensible  
Version: ~~20191110~~yyvymdd  
UID: 1.2.840.10008.6.1.496

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Table CID 7150. Segmentation Property Category

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Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID	Segmentation Property Type Context Group
SCT	85756007	Tissue	T-D0050	C0040300	CID 7191 "Tissue Segmentation Property Type"
SCT	91723000	Anatomical Structure	T-D0005	C1268086	CID 7192 "Anatomical Structure Segmentation Property Type"
SCT	260787004	Physical object	A-00004	C0085089	CID 7193 "Physical Object Segmentation Property Type"
SCT	49755003	Morphologically Abnormal Structure	M-01000	C0221198	CID 7194 "Morphologically Abnormal Structure Segmentation Property Type"
SCT	246464006	Function	R-42019	C0542341	CID 7195 "Function Segmentation Property Type"
SCT	309825002	Spatial and Relational Concept	R-42018	C0587374	CID 7196 "Spatial and Relational Concept Segmentation Property Type"
SCT	91720002	Body Substance	T-D0080	C0504082	CID 7197 "Body Substance Segmentation Property Type"
SCT	105590001	Substance	F-61002	C0439861	CID 7198 "Substance Segmentation Property Type"
<u>SCT</u>	<u>263496004</u>	<u>Quality</u>	<u>G-C287</u>	<u>C0332306</u>	<u>CID ccc1 "Quality Segmentation Property Type"</u>

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CID 7151 Segmentation Property Type

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Resources: HTML | FHIR JSON | FHIR XML | IHE SVS XML  
Keyword: SegmentationPropertyType  
FHIR Keyword: dicom-cid-7151-SegmentationPropertyType  
Type: Extensible  
Version: 20170914  
UID: 1.2.840.10008.6.1.497

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Table CID 7151. Segmentation Property Type

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Coding Scheme Designator	Code Value	Code Meaning
Include CID 7191 "Tissue Segmentation Property Type"		
Include CID 7192 "Anatomical Structure Segmentation Property Type"		
Include CID 7193 "Physical Object Segmentation Property Type"		
Include CID 7194 "Morphologically Abnormal Structure Segmentation Property Type"		
Include CID 7195 "Function Segmentation Property Type"		

Coding Scheme Designator	Code Value	Code Meaning
Include CID 7196 "Spatial and Relational Concept Segmentation Property Type"		
Include CID 7197 "Body Substance Segmentation Property Type"		
Include CID 4273 "Retinal Segmentation Surface"		
<b><u>Include CID ccc1 "Quality Segmentation Property Type"</u></b>		
Amend DICOM PS3.16 by adding new context group:		

CID ccc1 Quality Segmentation Property Type

Resources:	HTML   FHIR JSON   FHIR XML   IHE SVS XML
Keyword:	QualitySegmentationPropertyType
FHIR Keyword:	dicom-cid-ccc1-QualitySegmentationPropertyType
Type:	Extensible
Version:	yyyymmdd
UID:	1.2.840.10008.6.1.uuu1

Table CID ccc1. Quality Segmentation Property Type

Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID
DCM	ddd001	Usable tissue		
DCM	ddd002	Unusable tissue		
NCIt	C166240	Tumor tissue		C5237811
NCIt	C166238	Non-tumor tissue		C5237809
DCM	ddd003	In focus		
DCM	ddd004	Out of focus		
DCM	ddd005	Cracked cover slip		
DCM	ddd006	Folded tissue		
DCM	ddd007	Adequately stained		
DCM	ddd008	Inadequately stained		
SCT	56117007	Air bubble	A-80232	C0001863

Add new codes to DICOM PS3.16:

D DICOM Controlled Terminology Definitions (Normative)

Table D-1. DICOM Controlled Terminology Definitions (Coding Scheme Designator "DCM" Coding Scheme Version "01")

Code Value	Code Meaning	Definition	Notes
ddd001	Usable tissue	The region within a sample that is represented by tissue that is usable.	
ddd002	Unusable tissue	The region within a sample that is represented by tissue that is not usable.	
ddd003	In focus	The region within a sample that is in focus.	
ddd004	Out of focus	The region within a sample that is not in focus.	
ddd005	Cracked cover slip	The region within a sample where the slide cover slip is cracked.	

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Code Value	Code Meaning	Definition	Notes
ddd006	Folded tissue	The region within a sample that contains folded tissue.	
ddd007	Adequately stained	The region within a sample that is adequately stained.	
ddd008	Inadequately stained	The region within a sample that is not adequately stained.	

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*DICOM PS3.16 for referenced unchanged:*

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## CID 7159 Lesion Segmentation Type

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**Resources:** HTML | FHIR JSON | FHIR XML | IHE SVS XML  
**Keyword:** LesionSegmentationType  
**FHIR Keyword:** dicom-cid-7159-LesionSegmentationType  
**Type:** Extensible  
**Version:** 20220402  
**UID:** 1.2.840.10008.6.1.505

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**Table CID 7159. Lesion Segmentation Type**

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Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID
SCT	44132006	Abscess	M-41610	C0000833
SCT	75753009	Blood clot	M-35000	C0302148
SCT	367643001	Cyst	M-3340A	C0010709
SCT	79654002	Edema	M-36300	C0013604
SCT	55584005	Embolus	M-35300	C1704212
SCT	50960005	Hemorrhage	M-37000	C0019080
SCT	409774005	Inflammation	M-0100C	C1444073
SCT	52988006	Lesion	M-01100	C0221198
SCT	4147007	Mass	M-03000	C0577559
SCT	6574001	Necrosis	M-54000	C0027540
SCT	108369006	Neoplasm	M-8FFFF	C0027651
SCT	86049000	Neoplasm, Primary	M-80003	C1306459
SCT	14799000	Neoplasm, Secondary	M-80006	C2939419
SCT	27925004	Nodule	M-03010	C0028259

*Include CID 7168 "Brain Lesion Segmentation Type With Necrosis"*

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## CID 7166 Common Tissue Segmentation Type

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**Resources:** HTML | FHIR JSON | FHIR XML | IHE SVS XML  
**Keyword:** CommonTissueSegmentationType  
**FHIR Keyword:** dicom-cid-7166-CommonTissueSegmentationType  
**Type:** Extensible  
**Version:** 20210903  
**UID:** 1.2.840.10008.6.1.963

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**Table CID 7166. Common Tissue Segmentation Type**

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Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID
SCT	51114001	Artery	T-41000	C0003842

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Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID
SCT	87612001	Blood	T-C2000	C0005767
SCT	59820001	Blood vessel	T-40000	C0005847
SCT	248300009	Body fat	F-03D38	C0344335
SCT	272673000	Bone	T-D016E	C0262950
SCT	20982000	Capillary	T-40050	C0006901
SCT	309312004	Cartilage	T-D021B	C0007301
SCT	21793004	Connective tissue	T-1A200	C0009780
SCT	52082005	Ligament	T-18010	C0023685
SCT	59441001	Lymph node	T-C4000	C0024204
SCT	89890002	Lymphatic system	T-C6000	C0024235
SCT	83555006	Lymphatic vessel	T-C6010	C0229889
SCT	6969002	Lymphoid tissue	T-C0200	C0024296
SCT	74135004	Meniscus	T-15009	C0224498
SCT	71616004	Muscle	T-13001	C0026845
SCT	119410002	Nerve	T-D0598	C1268169
SCT	113343008	Organ	T-D0060	C0229983
SCT	39937001	Skin	T-01000	C1123023
SCT	87784001	Soft tissue	T-1A000	C0225317
SCT	71966008	Subcutaneous tissue	T-03000	C0278403
SCT	13024002	Tendon	T-17010	C0039508
SCT	85756007	Tissue	T-D0050	C0040300
SCT	29092000	Vein	T-48000	C0042449

**Note**  
Blood and body fat are considered tissues rather than body substances because they are cellular.

**CID 7191 Tissue Segmentation Property Type**

**Resources:** HTML | FHIR JSON | FHIR XML | IHE SVS XML  
**Keyword:** TissueSegmentationPropertyType  
**FHIR Keyword:** dicom-cid-7191-TissueSegmentationPropertyType  
**Type:** Extensible  
**Version:** 20170914  
**UID:** 1.2.840.10008.6.1.1190

**Table CID 7191. Tissue Segmentation Property Type**

Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID
Include CID 6403 "Non-lesion Object Type - Tissue"				
Include CID 6405 "Chest Non-lesion Object Type - Tissue"				
Include CID 7166 "Common Tissue Segmentation Type"				

**CID 7192 Anatomical Structure Segmentation Property Type**

**CID 7193 Physical Object Segmentation Property Type**

**CID 7194 Morphologically Abnormal Structure Segmentation Property Type**

**Resources:** HTML | FHIR JSON | FHIR XML | IHE SVS XML  
**Keyword:** MorphologicallyAbnormalStructureSegmentationPropertyType  
**FHIR Keyword:** dicom-cid-7194-MorphologicallyAbnormalStructureSegmentationPropertyType  
**Type:** Extensible  
**Version:** 20220402  
**UID:** 1.2.840.10008.6.1.1193

**Table CID 7194. Morphologically Abnormal Structure Segmentation Property Type**

Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID
<i>Include CID 7159 "Lesion Segmentation Type"</i>				
<i>Include CID 7199 "Anatomically Localized Lesion Segmentation Type"</i>				

**CID 7195 Function Segmentation Property Type**

**CID 7196 Spatial and Relational Concept Segmentation Property Type**

**CID 7197 Body Substance Segmentation Property Type**

**CID 7198 Substance Segmentation Property Type**

**CID 7199 Anatomically Localized Lesion Segmentation Type**

**CID 4273 Retinal Segmentation Surface**

**CID 6403 Non-lesion Object Type - Tissue**

**CID 6405 Chest Non-lesion Object Type - Tissue**

**CID 7168 Brain Lesion Segmentation Type With Necrosis**