

## Briefing Note for the Member Forum, Content Manager Advisory Group and Clinical Leads 9 May 2025

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### Restructuring & Formal Definitions of Disorders relating to Pregnancy

#### Purpose

The purpose of this briefing note is to seek feedback from the user community concerning proposed changes to 198609003 [Complication of pregnancy, childbirth and/or puerperium (disorder)] and its class of concepts.

#### Background

The subtypes of 198609003 [Complication of pregnancy, childbirth and/or puerperium (disorder)] are inconsistent, and quality improvement would enhance reliable use and data retrieval. In addition, with the increasing use of AI technology, it is becoming even more important that classification of these important clinical concepts is dependable and rule based. It is recognised that this domain of concepts is widely used, including the upper level 'grouping' nodes, and this briefing note is designed to both inform users and gather feedback from the community for which this domain is significant.

#### Issues

In order to accurately classify concepts, it is important that the meaning of concepts is clear as indicated by their descriptions, definition modeling, and in some cases, textual definitions. The class of 198609003 [Complication of pregnancy, childbirth and/or puerperium (disorder)], has a significant corpus of subtype concepts historically derived from classifications, notably ICD 10 (and its earlier and later variants): this heritage means that there is some inconsistency in how certain words have been used by different communities, and some significant ambiguities exist, which are outlined below.

#### **The meaning of 'complication'**

There are at least five variations of the use of 'complication' in this domain, and the meaning of these alternatives will be clarified with improved and consistent modelling as detailed below [*exemplar modelling italicized*]:

- A disorder that occurs during the time frame of pregnancy and puerperium, e.g.  
*1269075002 |Maternal disorder during labor (disorder):  
IS\_A: Disorder  
OCCURRENCE: Maternal intrapartum period*
- A “pre-existing” disorder during the specified period without any explicit comment on its influence on the pregnancy, e.g.  
*40511000119107 |Postpartum pre-existing essential hypertension (disorder):  
IS\_A: Essential hypertension  
OCCURRENCE: Maternal postpartum*
- A “pre-existing” disorder during the specified period complicating the state or management of a specific period, e.g.  
*31407004 |Pre-existing hypertension complicating AND/OR reason for care during puerperium (disorder)|  
IS\_A: Disorder  
DUE TO: Postpartum pre-existing essential hypertension (disorder)  
OCCURRENCE: Maternal intrapartum period*
- A disorder that not only occurs during the time frame of pregnancy and puerperium, but does not occur outside the physiological state of pregnancy; i.e. the condition is necessarily due to the pregnancy, e.g.  
*237283007 |Eclampsia in labor (disorder):  
IS\_A: Eclampsia  
OCCURRENCE: Maternal intrapartum period  
DUE TO: 77386006 |Pregnancy (finding)*
- A ‘complication proper’ where a disorder occurs as a direct result of a disorder occurring, or procedure performed in the context of the pregnant state, e.g.  
*23885003 |Inversion of uterus during delivery (disorder):  
IS\_A: Disorder  
DUE TO: 77386006 |Pregnancy (finding)  
DURING: Delivery procedure  
OCCURRENCE: Maternal intrapartum period  
FINDING SITE: Uterine structure  
ASSOCIATED MORPHOLOGY: Inversion*

### **The meaning of pregnancy, childbirth, obstetric and gestational**

The availability and application of a comprehensive set of temporal periods related to pregnancy has improved the clarity of definition of a large number of clinical findings and procedures; however, some inconsistency and uncertainty remains. For example, 199745000 |Complication occurring during labor and delivery (disorder) includes conditions related to the maternal intrapartum period – but conditions of the fetus, such as 275368005 |Labor fetal anoxia (disorder), are excluded from this class – a disorder that some clinicians would expect to be included. This candid example exposes the variability in interpretation of these upper groupers as to whether they relate solely to the mother, or also include the fetus and neonate. Similarly, 64229006 |Traumatic lesion during delivery (disorder) is currently limited to maternal traumatic events, but in isolation,

the preferred term could be interpreted to also include injuries of the fetus or neonate during delivery. The quality improvement initiative proposed will review all concepts within the class and apply a consistent benchmark relating to terms containing the words pregnancy, childbirth, obstetric, and gestational.

## Recommendations

These problems have been identified for some time, and it is now considered a priority to address these inconsistencies to improve the semantic definitions of the class of concepts below 'Complication of pregnancy, childbirth and/or puerperium'. The application of a consistent set of modelling rules will reduce the incidence of false negative exclusion and false positive inclusion within the class. A number of 'grouper concepts' are proposed for inactivation as ambiguous because it is not clear if the class: relates to a condition of mother or fetus, or both; and/or, it is intended to define a class limited to 'complications proper', or any disorders occurring during a particular temporal period. As a consequence, it is proposed that, due to the inherent ambiguity of some existing concepts, it is intended to:

1. Inactivate high level groupers [see Appendix A]; and
2. Replace these upper level concepts with a general grouping notion relating to a disorder of mother and/or fetus/neonate of the specified time period; and, provide an alternative grouper concept defining a class exclusively relating to maternal disorders [see Appendix A].

For example, in relation to 'Complication occurring during labor and delivery', looking at the current semantic neighborhood, two alternatives would be required: 'Maternal disorder during labor'; and 'Maternal and/or fetal disorder during labor' (1269434002 |Fetal intrapartum disorder, also exists). Similarly, following inactivation of the grouping node 'Complication of pregnancy, childbirth and/or puerperium' the default replacement would be 'Fetal and/or maternal disorder during antenatal and/or intrapartum and/or postpartum period', with an alternative replacement 'Maternal disorder during antenatal and/or intrapartum and/or postpartum period'.

Currently, 173300003 |Disorder of pregnancy (disorder)|, subsumes 609496007 |Complication occurring during pregnancy (disorder)|; and, 1269075002 |Maternal disorder during labor (disorder), subsumes 199745000 |Complication occurring during labor and delivery (disorder). However, it is important to note that 198609003 |Complication of pregnancy, childbirth and/or puerperium (disorder) is not a subclass of 1269101009 |Maternal disorder during antenatal and/or intrapartum and/or postpartum period (disorder), [partly due to the uncertainty of its meaning] - but following the proposed work all concepts relating to the mother currently classified under the former concept will be subsumed by the latter.

## Next steps

Please provide feedback if the proposed approach of inactivation of existing high level nodes and replacement with explicitly defined alternatives is acceptable. If the proposed high level node replacements [Appendix A] are inadequate, and the existing grouping nodes have been used to identify a class of concepts of a different meaning, please provide evidence of any scenarios where other alternative upper level 'groupers' nodes are necessary.

Comments may be made directly on this page's space, or sent via email to Phil Brown at [info@snomed.org](mailto:info@snomed.org) by 18 June 2025. The described policy will be authored during the remaining part of 2025, for release in January 2026. If additional requirements of essential upper level groupers in this domain are identified after this date, they can be submitted using the existing request mechanism.

Approvals	Date	Name
Chief Terminologist	May 9, 2025	James T. Case
Director of Content and Mapping	May 13, 2025	Monica Harry
CSRM representative	May 14, 2025	Liara Tutina

## Appendix A – List of high level groupers for inactivation and proposed replacement(s)

High level grouper for inactivation	Proposed default replacement	Alternative
<b>198609003</b>  Complication of pregnancy, childbirth and/or puerperium (disorder)	Fetal and/or maternal disorder during antenatal and/or intrapartum and/or postpartum period	1269101009  Maternal disorder during antenatal and/or intrapartum and/or postpartum period (disorder)
<b>609496007</b>  Complication occurring during pregnancy (disorder)	Fetal and/or maternal disorder during antenatal and/or intrapartum time period	173300003  Disorder of pregnancy (disorder), which more correctly should have a FSN Maternal disorder during antenatal and/or intrapartum time period
<b>199745000</b>  Complication occurring during labor and delivery (disorder)	1269083008  Fetal and/or maternal disorder during labor (disorder)	1269075002  Maternal disorder during labor (disorder)

NB those concepts highlighted in red already exist – but currently do not contain all members of the class, as many of these are modelled as being a subtype of the primitive 198609003 |Complication of pregnancy, childbirth and/or puerperium (disorder).

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Phil Brown, 2025-05-09