Mapping Personnel Handbook

Principles and standards

Linking SNOMED CT® Concepts to ICD-10

Date 20160224
Version 2.16

Amendment History

Date	Editor	Comments
20120308	Hazel Brear	First draft for comments
20120903	Donna Morgan	Second draft for comments
20121012	Donna Morgan	Third draft for comments
20121018	Donna Morgan	Fourth draft for comments
20130110	Donna Morgan	Fifth draft for comments
20130301	Kathy Giannangelo	Revised principles 01, 04, 09, 10, 11, 12, 16, 17, 25 and added Appendix 3.
20130305	Donna Morgan	Added principle 26 and revised 9 and 12
20130327	Donna Morgan	Final Draft
20130711	Krista Lilly	Added principle 27
20130802	Krista Lilly	Added principle 28
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20130905	Krista Lilly	Added principles 30, 31
20131213	Krista Lilly	Added principle 32, 33, 34
20140113	Krista Lilly	Revised principle 33, logo
20140212	Krista Lilly	Retired referenced principles to high and low level concepts
20140311	Nicola Ingram	Added example to 04, additional info to 23
20140327	Krista Lilly	Revised 22 to include unknown effect
20140415	Krista Lilly	Added principle 35
20140505	Mapping Service Team	Revised principle 31 to exclude AND/OR from supertypes; Added principle 36, 37 & 38
20140702	Nicki Ingram	Revised principle 14, 18, 35, 36, 37, 38
20140708	Kelly Read	Revised principles 5, 8, 16, 20, 21, 32
20140723	Kelly Read	Revised principles 4, 13
20141014	Krista Lilly	Revised principle 6
20141104	Kelly Read	Revised principles 3, 4
20141104	Krista Lilly	Updated Principle 38; Added appendix from Canadian postoperative conditions
20141105	Nicki Ingram	Revised principles 7, 13, 23
20141124	Krista Lilly	Revised principle 38
20141202	Krista Lilly	Added complication advice for external cause to principle 38
20150109	Nicki Ingram	Added principle 39
20150218	Nicki Ingram	Revised principle 10
20150309	Krista Lilly	Added principle 40; revised principle 39
20150406	Krista Lilly, Neil Mason	Added principle 41
20150617	Krista Lilly	Added principle 42
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20150805	Krista Lilly	Added principle 45
20150923	Nicola Ingram	Retired Principle 24

20151002	Kathy Giannangelo	Created TOC with quick link to page as suggested by team's comments from collaboration work.
20151014	Krista Lilly	Added principle 46
20151113	Krista Lilly	Revised principle 46 to include drug therapy
20151209	Krista Lilly	Retired sequencing principle 45; Removed descendant reference from principle 25
20160121	Nicki Ingram	Added principle 47
20160224	Krista Lilly	Revised principle 21 for algorithm clarity

Table of Contents

1 Purpose

The purpose of this document is to describe the fundamental and specific editorial principles which are applied to the development and maintenance of the International Health Terminology Standards Development Organisation (IHTSDO) SNOMED CT® to ICD-10 MAP.

2 Audience

The intended audience are map personnel who are tasked with the production of high quality consistent and reproducible MAPS from SNOMED CT® to ICD-10.

3 Scope

SNOMED CT® is a comprehensive clinical healthcare terminology which provides a large list of clinically rich descriptions for use by healthcare professionals. It is necessarily more detailed than ICD-10 and understandably not every concept in SNOMED CT can or should be represented in ICD-10. The MAP is a tabular knowledge based cross-link *from* the source SNOMED CT *to* the target ICD-10.

This document will reference the data sets, algorithms, and intellectual products of the SNOMED CT to ICD-10 map as the MAP.

4 Source domains

All concepts within the following SNOMED CT® hierarchies may be considered for mapping:
- 404684003 Clinical findings (disorders and findings)
- 272379006 Events
- 243796009 Situations with explicit context (excluding 129125009 Procedure with explicit context, and its descendants).

All chapters of ICD-10 are considered within scope of this MAP. The codes found in the reference table 'Morphology of Neoplasms' are excluded from this MAP.

5 Methodology

Briefly, the methodology employed for construction of the MAP involves:
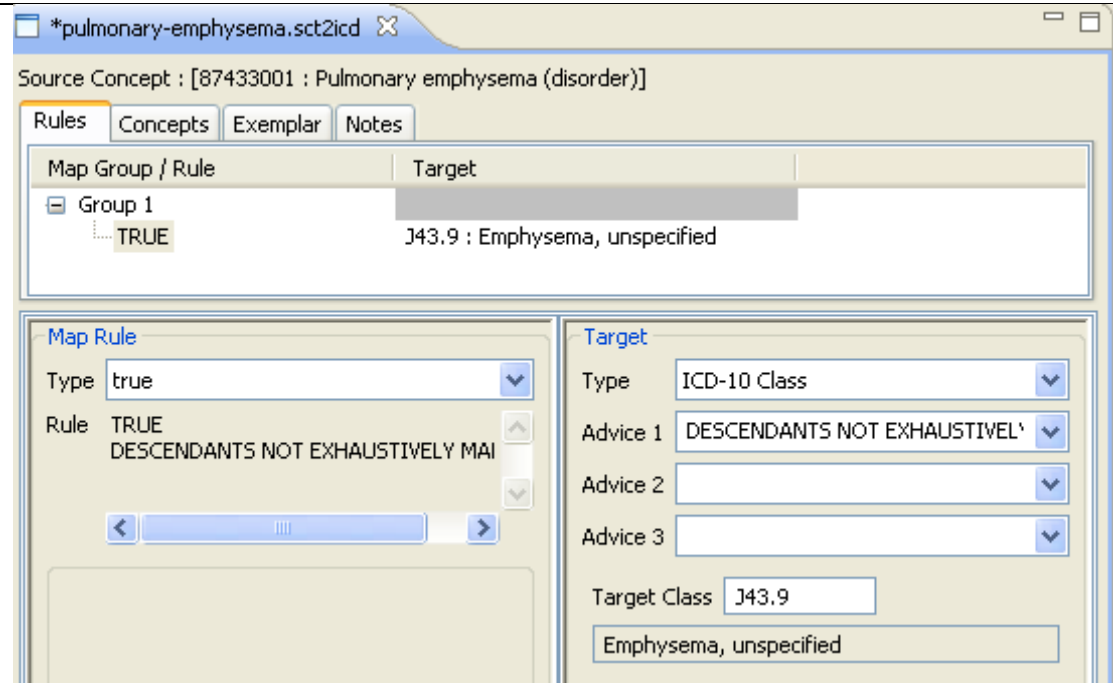
- Evaluation of the SNOMED CT® concept and its defining relationships in order to understand the clinical meaning of the concept
- Location of the best place in ICD-10 which reflects the clinical meaning of the concept
- Identification of a default target code or metadata ensuring application of ICD-10 rules and conventions
- Consideration of ICD-10 Alphabetical Index essential modifiers and Tabular List exclusion notes for the creation of valid exclusion rules
- Construction of the MAP within the IHTSDO mapping tool.

6 Principles

It is crucial for the production of accurate, consistent and reproducible MAPS that the principles outlined within this document are followed.

Principle 01: MAPPING OF HIGH LEVEL CONCEPTS (RETIRED)

Principle Number	01 – RETIRED
Title	Mapping of High Level Concepts
Date of Origination	23 January 2013
Date of Revision	20140212
Principle	Where a source concept has more than 10 descendants the "Mapping Specialist" will create a record for the appropriate default target code or metadata. It is not necessary to add the map advice DESCENDANTS NOT EXHAUSTIVELY MAPPED since this advice is added at the time batches are created to concepts having more than 10 descendants.
Example	87433001 |Pulmonary emphysema (disorder)|

Reference	Technical specification document

Principle 02: MAPPING OF LOW LEVEL CONCEPTS (RETIRED)

Principle Number	02 – RETIRED
Title	Mapping of Low Level Concepts
Date of Origination	23 January 2013
Date of Revision	12 February 2014
Principle	Where a source concept has 10 or fewer descendants the "Mapping Specialist" will evaluate and map each descendant to a relevant target code or metadata ensuring assignment of map advice where appropriate.
Examples	254570009 |Carcinoma of duodenum (disorder)|

In this first example the source concept has only one descendant. |

The default rule (ELSE) has a target code of C17.0 and the advice POSSIBLE REQUIREMENT FOR MORPHOLOGY CODE has been added.

For the descendant, 254609000 |Carcinoma of ampulla of Vater (disorder)|, the IF A rule has a target of C24.1 and the advice POSSIBLE REQUIREMENT FOR MORPHOLOGY CODE has been added here as this is also appropriate to this target code.

Carcinoma-of-duodenum-254570009.sct2icd ✕

Source Concept : [254570009 : Carcinoma of duodenum (disorder)]

Tabs: Rules | Concepts | Exemplar | Notes

Map Group / Rule	Target	
⊟ Group 1		
IF A [254609000 : Carcinoma of ampulla of Vater]	C24.1 : Malignant neoplasm: Ampulla of Vater	
ELSE	C17.0 : Malignant neoplasm: Duodenum	

Map Rule

Type: concept

Rule: IF A [254609000 : Carcinoma of ampulla POSSIBLE REQUIREMENT FOR MORPHO

Concept

Concept: 254609000

Carcinoma of ampulla of Vater

Axis: self

Target

Type: ICD-10 Class

Advice 1: POSSIBLE REQUIREMENT FOR MOF

Advice 2:

Advice 3:

Target Class: C24.1

Malignant neoplasm: Ampulla of Vater

283545005 |Gunshot wound (disorder)|
In this second example the IF A rule and the default ELSE rule has a target of T14.1
also a second group has been added with the appropriate external cause code W34.

Gunshot-wound-283545005.sct2icd ✕

Source Concept : [283545005 : Gunshot wound (disorder)]

Tabs: Rules | Concepts | Exemplar | Notes

type filter text

Concept	Axis	Output	
◢ Gunshot wound			
Gunshot entry wound	S	T14.1 : Open wou...	
Gunshot exit wound	S	T14.1 : Open wou...	
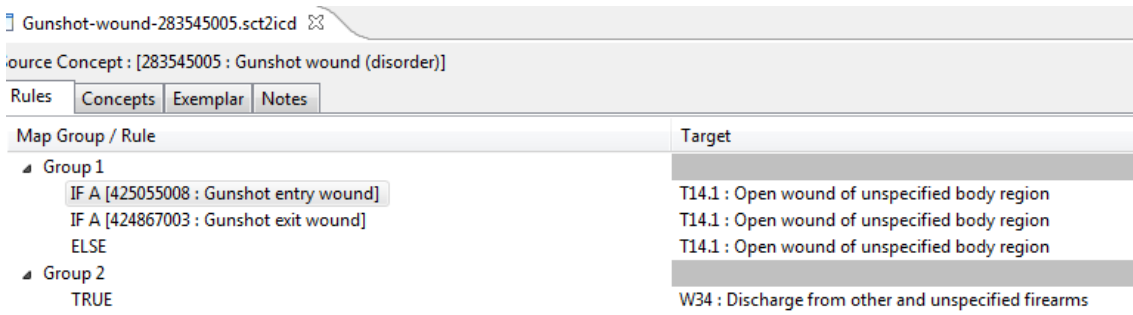
```
Gunshot-wound-283545005.sct2icd ⊠

source Concept : [283545005 : Gunshot wound (disorder)]

Rules | Concepts | Exemplar | Notes

Map Group / Rule                                          Target
⊿ Group 1
    IF A [425055008 : Gunshot entry wound]               T14.1 : Open wound of unspecified body region
    IF A [424867003 : Gunshot exit wound]                T14.1 : Open wound of unspecified body region
    ELSE                                                 T14.1 : Open wound of unspecified body region
⊿ Group 2
    TRUE                                                 W34 : Discharge from other and unspecified firearms
```

Principle 03: POSSIBLE REQUIREMENT TO IDENTIFY PLACE OF OCCURRENCE

Principle Number	03
Title	**POSSIBLE REQUIREMENT TO IDENTIFY PLACE OF OCCURRENCE**
Date of Origination	23 January 2013
Date of Revision	04 November 2014
Principle	For codes **W00-Y34** ICD-10 provides characters to identify the place of occurrence of the external causes, where relevant. The fourth character Place of Occurrence codes are not added to the Map but instead the Mapping Specialist selects Map advice POSSIBLE REQUIREMENT TO IDENTIFY PLACE OF OCCURRENCE. Exceptions: Some codes within (W00-Y34) have their own fourth character, not related to place of occurrence. Transport accidents (V01-V99) have their own fourth character classification. Map to the fourth character for the following: 1. Transport accidents (V01-V99) 2. Victim of Earthquake (X34) 3. Exposure to unspecified factor (X59) 4. Neglect and abandonment (Y06) 5. Other maltreatment (Y07) 6. Legal intervention (Y35)

	7. Operations of war (Y36)
Example **Exception**	**218164000 |Accident caused by electric current (event)|** W87 *Exposure to unspecified electric current* and add two advices: 1. Possible requirement to identify place of occurrence 2. This is an external cause code for use in the secondary position **242552002 |Exposure to heat flash due to explosion in war (event)|** Y36.2 *War operations involving other explosions and fragments* and add one advice: 1. This is an external cause code for use in the secondary position
Reference	http://apps.who.int/classifications/icd10/browse/2010/en#/XX- Chapter XX http://apps.who.int/classifications/apps/icd/icd10training/ - Module 22 http://apps.who.int/classifications/apps/icd/icd10training/

http://apps.who.int/classifications/apps/icd/icd10training/

Principle 04: MAPPED FOLLOWING WHO GUIDANCE
http://apps.who.int/classifications/apps/icd/icd10training/
http://apps.who.int/classifications/apps/icd/icd10training/http://apps.who.int/classifications/apps/icd/icd10training/

Principle Number	**04**
Title	**MAPPED FOLLOWING WHO GUIDANCE**
Date of Origination	23 January 2013
Date of Revision	11 March 2014, 04 November 2014
Principle	The map advice MAPPED FOLLOWING WHO GUIDANCE is utilized when assigning an ICD-10 target code based on conventions and assumptions in WHO guidance.
Example(s)	1. **71642004 |Fracture of skull (disorder)|** The use of the supplementary fifth character 0 closed, or 1 open, to indicate whether a fracture is open or closed. WHO guidance is that if a fracture is not indicated as closed

or open then it should be classified as closed. The map advice MAPPED FOLLOWING WHO GUIDANCE is required.
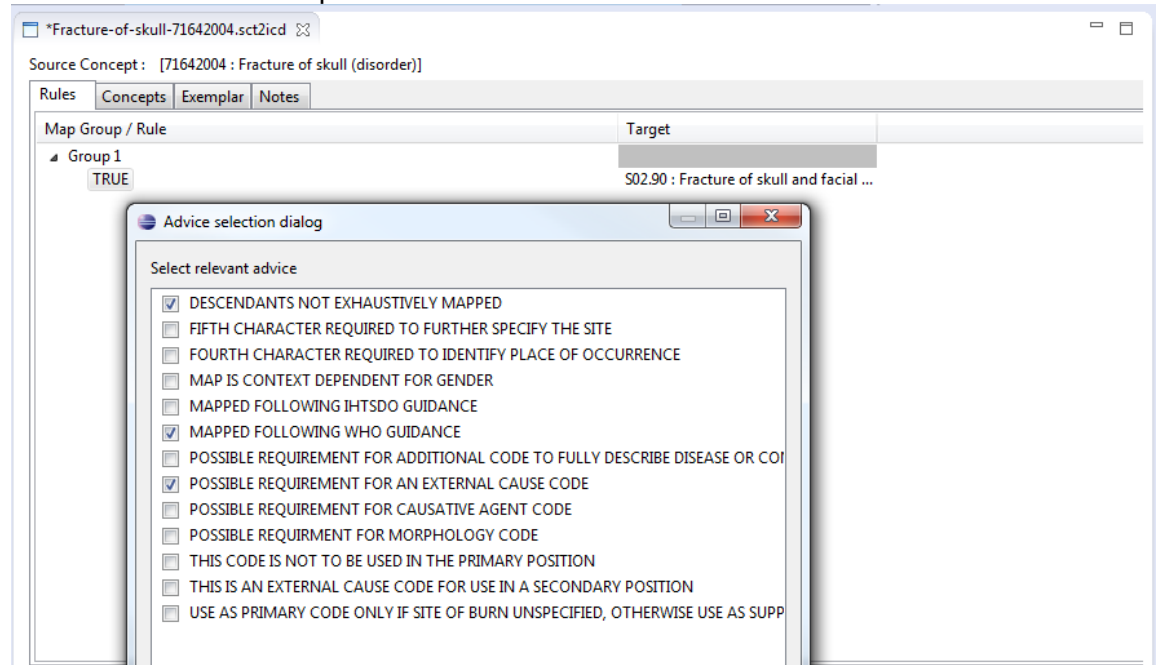
2. 127296001 |Intracranial injury (disorder)|

The use of the supplementary fifth character 0 without open intracranial wound, or 1 with open intracranial wound, to indicate whether an intracranial injury is open or closed. WHO guidance is that if an intracranial injury is not indicated as closed or open then it should be classified as closed. The map advice MAPPED FOLLOWING WHO GUIDANCE is required.

Advice selection dialog

Select relevant advice

- [x] DESCENDANTS NOT EXHAUSTIVELY MAPPED
- [ ] FIFTH CHARACTER REQUIRED TO FURTHER SPECIFY THE SITE
- [ ] MAP IS CONTEXT DEPENDENT FOR GENDER
- [ ] MAPPED FOLLOWING IHTSDO GUIDANCE
- [x] MAPPED FOLLOWING WHO GUIDANCE
- [ ] POSSIBLE REQUIREMENT FOR ADDITIONAL CODE TO FULLY DESCRIBE DISEASE OR CONDITION
- [x] POSSIBLE REQUIREMENT FOR AN EXTERNAL CAUSE CODE
- [ ] POSSIBLE REQUIREMENT FOR CAUSATIVE AGENT CODE
- [ ] POSSIBLE REQUIREMENT FOR MORPHOLOGY CODE
- [ ] POSSIBLE REQUIREMENT TO IDENTIFY PLACE OF OCCURRENCE
- [ ] THIS CODE IS NOT TO BE USED IN THE PRIMARY POSITION
- [ ] THIS IS AN EXTERNAL CAUSE CODE FOR USE IN A SECONDARY POSITION
- [ ] USE AS PRIMARY CODE ONLY IF SITE OF BURN UNSPECIFIED, OTHERWISE USE AS SUPPLEMENTARY C

3. Acquired vs. Congenital target codes

The ICD-10 index may default either to an acquired or a congenital classification code for the unspecified term. If the meaning of the SNOMED CT concept is neither defined as acquired nor congenital, then the target code is assigned based on the index entry of either acquired or congenital. Indicate there is an assumption on the part of ICD-10 by applying map advice of MAPPED FOLLOWING WHO GUIDANCE.

Example:

122481008 |Hammer toe (disorder)|

SNOMED CT neither defines hammertoe as an acquired disorder nor as a congenital disorder. In the ICD10 alphabetical index, the default is to the acquired condition; therefore, this code has been selected for the map:

Hammer toe NEC (acquired) M20.4
- congenital Q66.8

4. Acute vs Chronic target codes

The ICD-10 index may default either to an acute or a chronic classification code for the unspecified term. If the meaning of the SNOMED CT concept is neither defined as acute nor chronic, then the target code is assigned based on the index entry of either acute or chronic. Indicate there is an assumption on the part of ICD-10 by applying map advice of MAPPED FOLLOWING WHO GUIDANCE.

Example:

36971009 |Sinusitis (disorder)|

SNOMED CT neither defines sinusitis as an acute disorder nor as a chronic disorder. In the ICD-10 alphabetical index, the default is to the chronic condition; therefore, J32.9 has been selected for the map:

Sinusitis (accessory) (chronic) (hyperplastic) (nasal) (nonpurulent) (purulent) J32.9
- acute J01.9

> **Note:** Coding hint for category J32
> Use additional code (B95-98), if desired, to identify infectious agent

Target code: J32.9 with two advices:
MAPPED FOLLOWING WHO GUIDANCE
POSSIBLE REQUIREMENT FOR CAUSATIVE AGENT CODE

5. Malignant Neoplasms not specified as primary in SNOMED CT

MAPPED FOLLOWING WHO GUIDANCE is assigned in those circumstances of *malignant neoplasm NOS* when WHO assumes this is a primary neoplasm although the SNOMED CT malignant neoplasm concept is not defined as primary**.**

WHO online ICD-10 (2010) Training:

> The code blocks in Chapter II are organised according to behaviour, with the block for malignant neoplasms, C00–C97, being the largest. This is further divided into sub blocks according to site. It indicates that a malignant neoplasm is coded to this block if the documentation clearly states that it is a primary site. If the documentation does not state whether a malignant neoplasm is primary or not, the neoplasm must be assumed to be primary.

Example:

188192002 |Malignant neoplasm of endometrium of   corpus uteri (disorder)|

EXCEPTION: This principle does not apply to code ranges (C81-C96).

An example is provided below indicating a concept that would not require WHO GUIDANCE.

118599009 |Hodgkin's disease (disorder)|
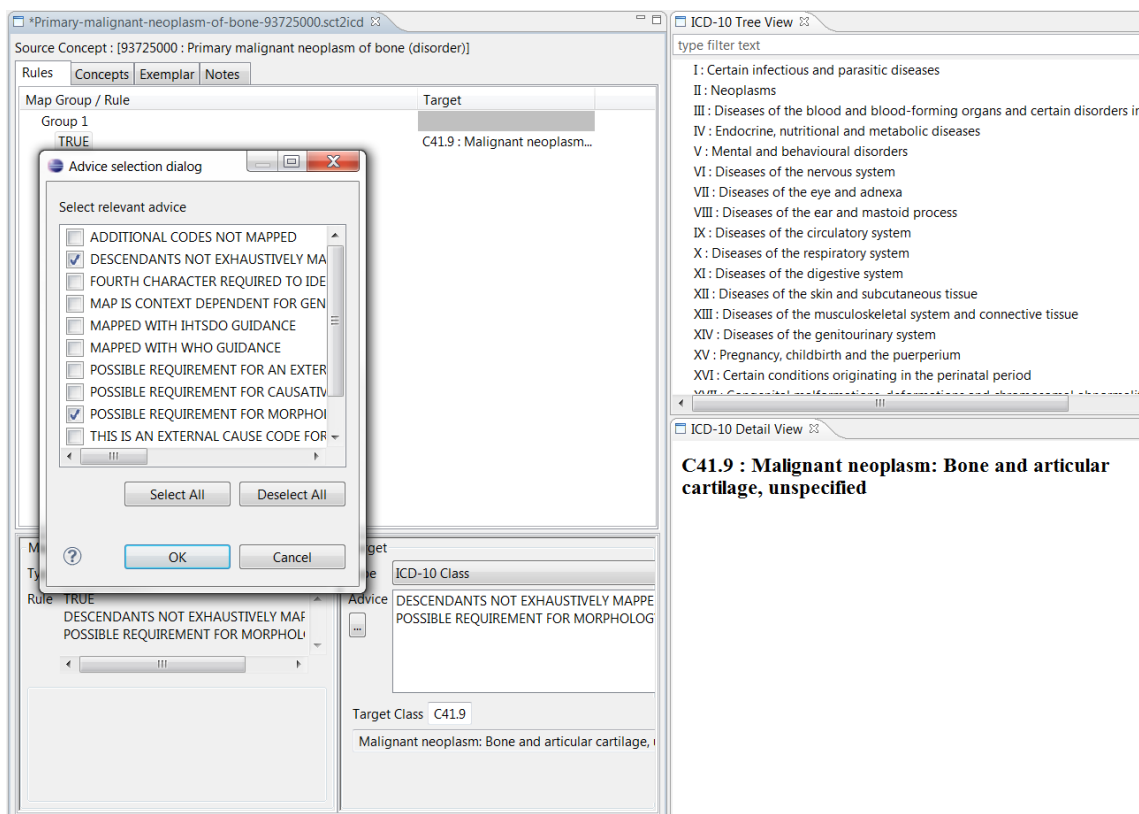
ICD-10 Tabular list: C81.9- Hodgkin Lymphoma, unspecified

Tabular: Malignant neoplasms, stated or presumed to be primary, of lymphoid, hematopoietic and related tissue   (C81-C96)

Although the Tabular references "presumed to be primary", MAPPED FOLLOWING WHO GUIDANCE is not required because they do not have a primary site.

Reference	WHO Online Training section 2.4.80

Principle 05: POSSIBLE REQUIREMENT FOR MORPHOLOGY CODE

Principle Number	**05**
Title	**POSSIBLE REQUIREMENT FOR MORPHOLOGY CODE**
Date of Origination	23 January 2013
Date of Revision	8 July 2014
Principle	All source concepts representing neoplastic disorders in code ranges (C00-D48) will be mapped according to this Principle. Morphology mapping with ICD-O is out of scope for the MAP. An advice note will be recorded by the Mapping Specialist to denote a morphology code may be required for completeness.
Example	**93725000 |Primary malignant neoplasm of bone (disorder)|**
Reference	ICD-10 Volume 2 page13- 2.4.1 Morphology of neoplasms. The morphology of neoplasms (pp.1177-1204) may be used if desired, as an additional code to classify the morphological type for neoplasms.

Principle 06: USE AS PRIMARY CODE ONLY IF SITE OF BURN UNSPECIFIED, OTHERWISE USE AS A SUPPLEMENTARY CODE WITH CATEGORIES T20-T25 or T29 (BURNS)

Principle Number	06
Title	**USE AS PRIMARY CODE ONLY IF SITE OF BURN UNSPECIFIED, OTHERWISE USE AS A SUPPLEMENTARY CODE WITH CATEGORIES T20-T25 or T29 (BURNS)**
Date of Origination	23 January 2013
Date of Revision	14 October 2014
Principle	Codes in categories **T31 Burns classified according to extent of body surface involved** and **T32 Corrosions classified according to extent of body surface involved** capture information about the percentage of body surface that has been burned or corroded, but codes in these categories should only be used as the main condition if the specific site of the burn is unknown. However, they can be used as an additional code to add more detail to a diagnosis. The Mapping Specialist selects USE AS PRIMARY CODE ONLY IF SITE OF BURN UNSPECIFIED, OTHERWISE USE AS A SUPPLEMENTARY CODE WITH CATEGORIES T20-T29 (BURNS) map advice when mapping SNOMED concepts to codes in these categories.

Example	
Reference	http://apps.who.int/classifications/apps/icd/icd10training/ICD-10%20training/Start/index.htmlhttp://apps.who.int/classifications/apps/icd/icd10training/ICD-10 training/Start/index.html ICD-10 Index code note at T31 and T32: *Note:* This category is to be used as the primary code only when the site of the corrosion is unspecified. It may be used as a supplementary code, if desired, with categories T20-T25 or T29 when the site is specified. http://apps.who.int/classifications/apps/icd/icd10training/ICD-10 training/Start/index.html

http://apps.who.int/classifications/apps/icd/icd10training/ICD-10 training/Start/index.html
http://apps.who.int/classifications/apps/icd/icd10training/ICD-10 training/Start/index.html

http://apps.who.int/classifications/apps/icd/icd10trainingICD-10 training/Start/index.html**Principle 07:**
THIS IS AN EXTERNAL CAUSE CODE FOR USE IN A SECONDARY POSITION

Principle Number	**07**
Title	**THIS IS AN EXTERNAL CAUSE CODE FOR USE IN A SECONDARY POSITION**
Date of Origination	23 January 2013, 5 November 2014
Date of Revision	

Principle	An external cause code from Chapter XX is used with a code from another chapter, to add to the detail captured by the diagnosis code by giving the reason for the condition, especially in situations where the diagnosis code specifies to "use additional external cause code." The external cause code should always be sequenced AFTER the disease chapter code in a secondary position. An exception to this rule is when a SNOMED Concept is described as an 'Event' and maps to only one external cause code. In this instance the map advice THIS IS AN EXTERNAL CAUSE CODE FOR USE IN A SECONDARY POSITION should be added to identify both the need to record a diagnosis code and that sequencing rules apply.
Reference	http://apps.who.int/classifications/apps/icd/icd10training/ICD-10%20training/Start/index.htmlhttp://apps.who.int/classifications/apps/icd/icd10training/ICD-10 training/Start/index.html

http://apps.who.int/classifications/apps/icd/icd10training/ICD-10 training/Start/index.html
http://apps.who.int/classifications/apps/icd/icd10training/ICD-10 training/Start/index.html

Principle 08: POSSIBLE REQUIREMENT FOR CAUSATIVE AGENT CODE

Principle Number	**08**
Title	**POSSIBLE REQUIREMENT FOR CAUSATIVE AGENT CODE**
Date of Origination	23 January 2013, 5 November 2014
Date of Revision	8 July 2014
Principle	The map advice of POSSIBLE REQUIREMENT FOR CAUSATIVE DISEASE CODE has been changed to POSSIBLE REQUIREMENT FOR CAUSATIVE *AGENT* CODE. Use this map advice when the SNOMED concept maps to an ICD-10 code that has the following Tabular instructions: - Use additional code, if desired, to identify infectious agent or disease - Use additional code (B95-B97), if desired, to identify infectious agent - Use additional code (B95-B96), if desired, to identify bacterial agent

Example (s)	**190959006 |Hemophagocytic syndrome, infection-associated (disorder)|** ICD-10 code: *D76.2, Hemophagocytic syndrome, infection-associated* Choose POSSIBLE REQUIREMENT FOR CAUSATIVE AGENT CODE from the Map Advice Selection Box.
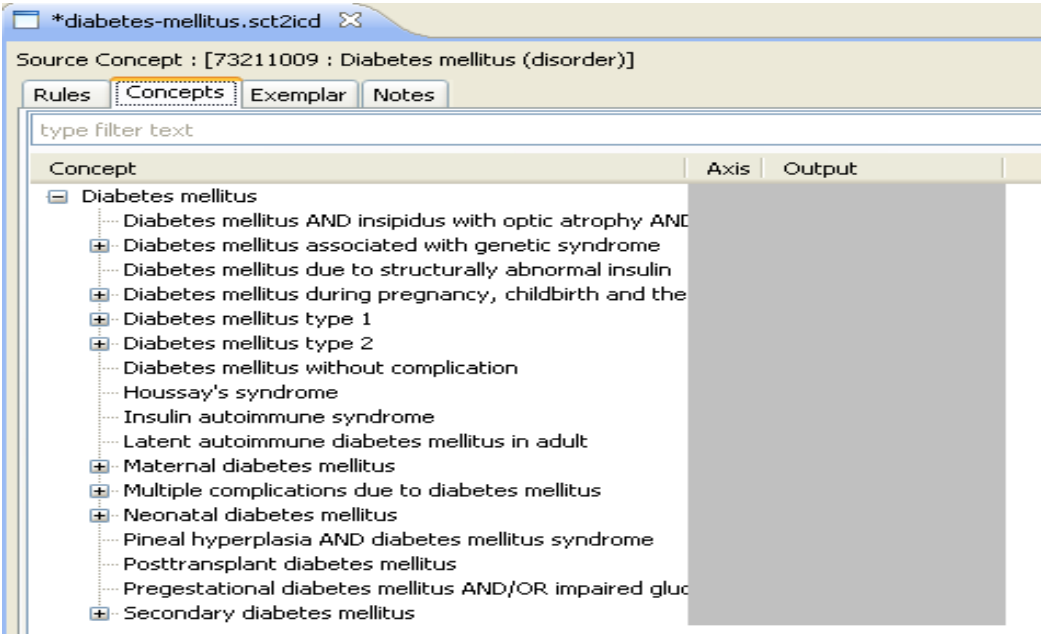
	Advice selection dialog
	
	Select relevant advice
	
	☐ DESCENDANTS NOT EXHAUSTIVELY MAPPED
	☐ FIFTH CHARACTER REQUIRED TO FURTHER SPECIFY THE SITE
	☐ FOURTH CHARACTER REQUIRED TO IDENTIFY PLACE OF OCCURRENCE
	☐ MAP IS CONTEXT DEPENDENT FOR GENDER
	☐ MAPPED FOLLOWING IHTSDO GUIDANCE
	☐ MAPPED FOLLOWING WHO GUIDANCE
	☐ POSSIBLE REQUIREMENT FOR ADDITIONAL CODE TO FULLY DESCRIBE DISEASE (
	☐ POSSIBLE REQUIREMENT FOR AN EXTERNAL CAUSE CODE
	☑ POSSIBLE REQUIREMENT FOR CAUSATIVE AGENT CODE
	☐ POSSIBLE REQUIRMENT FOR MORPHOLOGY CODE
	☐ THIS CODE IS NOT TO BE USED IN THE PRIMARY POSITION
	☐ THIS IS AN EXTERNAL CAUSE CODE FOR USE IN A SECONDARY POSITION
	☐ USE AS PRIMARY CODE ONLY IF SITE OF BURN UNSPECIFIED, OTHERWISE USE A
	
	399102002|Bullous Staphylococcal Impetigo (disorder)|
	
	In this example, the bacterial agent, Staphylococcal, is identified in the SNOMED CT concept. The advice POSSIBLE REQUIREMENT FOR CAUSATIVE AGENT CODE isn't needed because you can select a target code to represent the bacteria.
	
	Two target codes are needed to properly classify this concept:
	
	Group 1- L01.0 Impetigo [any organism] [any site]
	Group 2- B95.8 Unspecified staphylococcus as the cause of diseases classified to other chapters
	
	Note: Coding hint for category (L00-L08)
	Use additional code (B95-B98), if desired, to identify infectious agent
	
	EXCEPTIONS:
	      • Do not add causative agent advice for every code in the block 'Complication of surgical and medical care, not elsewhere classified (T80-T88)' if that concept is clearly not an infectious complication.
	      • Glomerular diseases (N00-N08) has advice *Use additional code, if desired, to identify external cause (Chapter XX)* but this would not be applied if the concept were described as hereditary.

Reference	MST Meeting Minutes 8/3/2012

Principle 09: DESCENDANTS NOT EXHAUSTIVELY MAPPED (RETIRED)

Principle Number	09 *(see also Principles 01 and 02) - RETIRED*
Title	DESCENDANTS NOT EXHAUSTIVELY MAPPED
Date of Origination	23 January 2013
Date of Revision	12 February 2014
Principle	If a source concept has more than 10 descendants, the Mapping Specialist will construct a map with a default target only. This will be considered a high level concept. If a source concept has 10 or less descendants, the "Mapping Specialist" will construct maps for each of those descendants and this will be considered a low level concept. NC map category cases should not have any other map advice values except "DESCENDANTS NOT EXHAUSTIVELY MAPPED" or "MAP IS CONTEXT DEPENDENT FOR GENDER"
Example(s)	1. **73211009 |Diabetes mellitus (disorder)|** For a source concept with more than 10 descendants: In the project explorer panel select the concept **73211009 |Diabetes mellitus (disorder)|** with a double click. The concept is populated in the central mapping panel. Click on the 'Concepts' tab and there are clearly more than 10 descendants:

Highlight 'Diabetes mellitus' at the top level and then return to the 'Rules' tab.

Following analysis of the concept the conclusion is that there is no discrepancy between the FSN and the super types and attributes, and no discordance between the meaning of the concept and the attached synonymous descriptions.

The mapping process continues in order to identify the default target <u>only</u>, for this high level concept.

The lead term for this search will be 'diabetes' and the next task is to locate the lead term in the index and identify if the concept is represented with or without modifiers (non-essential or essential).

Diabetes, diabetic (mellitus) (controlled) (familial) (severe) E14.-
– acetonemia – *code to* E10-E14 with fourth character .1 E14.1
– acidosis – *code to* E10-E14 with fourth character .1 E14.1
– adult-onset (nonobese) (obese) E11.-
– arising in pregnancy O24.4
– – affecting fetus or newborn P70.0
– bone change – *code to* E10-E14 with fourth character .6 E14.6 M90.8
– brittle E10.-
– bronze, bronzed E83.1
– cataract – *code to* E10-E14 with fourth character .3 E14.3 H28.0
– chemical R73.0
– coma (hyperglycemic) (hyperosmolar) – *code to* E10-E14 with fourth character .0 E14.0
– complicating pregnancy, childbirth or puerperium (maternal) O24.-
– – affecting fetus or newborn P70.1

The index entry for diabetes has a non-essential modifier of 'mellitus'. Note that the default ICD-10 target code is given at three-character level **'E14.-'**. Review and consider the ICD-10 Tabular list notes, inclusions and exclusions at **E14.-**.

In this case none of the notes change the selection of a target code from E14.-. As the concept has no clinical meaning beyond the fact that this is diabetes mellitus, the correct fourth-character to select is 'without complication'.

Highlight 'Group 1' in the mapping panel and then click the [R+] icon to add a 'TRUE' rule to group 1.

Drag and drop E14.9 from the ICD-10 Tree View in to the Target Class field. Note that the mapping panel view has changed to show the default mapping.

Final view of this mapped concept is as follows:
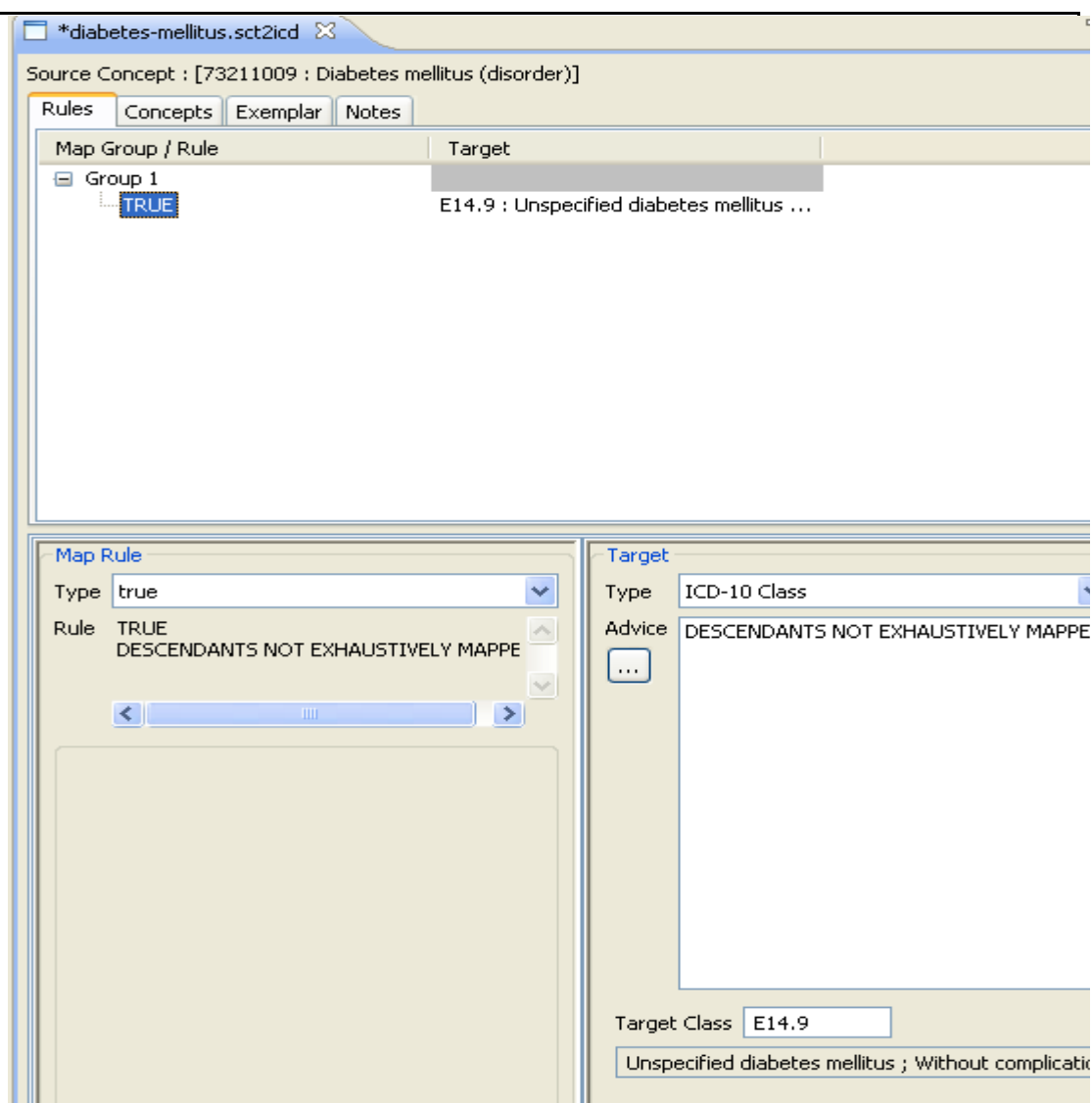
2. 25730006 |Stricture of rectum (disorder)|

After analysis of the concept, identification of lead term/terms, locating target codes for the concept and each of the descendants, the default target code is added (see last example). The target codes for the descendants can be added by switching to the 'Concepts' tab. Select the target code for each from the ICD-10 Tree View and drag and drop the code on to the axis and output section:

*Stricture-of-rectum-25730006.sct2icd

Source Concept : [25730006 : Stricture of rectum (disorder)]

| Rules | Concepts | Exemplar | Notes |

type filter text   1

Concept	Axis	Output	
⊟ Stricture of rectum			
— Anorectal stricture	S	K62.4 : Stenosis o...	
⊟ Congenital stricture of rectum	S	Q42.1 : Congenita...	
— Congenital stricture of rectum with fistula	S	Q42.0 : Congenita...	
— Stricture of rectum due to radiation	S	K91.8 : Other post...	

Final 'Rules' tab view of this mapped concept is as follows:

Stricture-of-rectum-25730006.sct2icd

Source Concept : [25730006 : Stricture of rectum (disorder)]

| Rules | Concepts | Exemplar | Notes |

Map Group / Rule	Target
⊟ Group 1	
IF A [68627009 : Anorectal stricture]	K62.4 : Stenosis of anus and rectum
IF A [429274001 : Stricture of rectum due to radiation]	K91.8 : Other postprocedural disorde...
IF A [204728005 : Congenital stricture of rectum with fistula]	Q42.0 : Congenital absence, atresia ...
IF A [39476006 : Congenital stricture of rectum]	Q42.1 : Congenital absence, atresia ...
ELSE	K62.4 : Stenosis of anus and rectum

Map Rule

Type | true

Rule | ELSE

Target

Type | ICD-10 Class

Advice | [...]

Note that the 'TRUE' rule has now changed to 'ELSE'. The 'True' or 'Else' rule is always the final default rule in a map group.

| **Reference** | See page 27-30 of *User Guidance: Stand-Alone Mapping Tool* at https://csfe.aceworkspace.net/sf/docman/do/downloadDocument/projects.mapping _service_team/docman.root.documentation.education_and_training/doc6264 |

Principle 010: FIFTH CHARACTER REQUIRED TO FURTHER SPECIFY THE SITE

Principle Number	010
Title	**FIFTH CHARACTER REQUIRED TO FURTHER SPECIFY THE SITE**
Date of Origination	23 January 2013
Date of Revision	10 February 2015
Principle	The usual scenario is where a SNOMED CT concept that is general and does not specify the site, maps to a target code in ICD-10 Chapter XIII (M) that is not site-specific and requires a 5th character. Therefore in this scenario it is correct to add the 5th character **.9 Site unspecified.** See Examples 1 and 2 below. In certain circumstances, for a site-specific SNOMED CT concept where the SNOMED CT site cannot be specifically matched to a 5th character site in ICD-10, the Mapping Specialist can complete the mapping to the 4th character only. To complete the code with a 5th character requires additional clinical information. In these cases, it is more useful to allow the user who has access to the clinical information to assign the 5th character rather than the Mapping Specialist assigning either the **.8 Other** or **.9 Site unspecified** 5th character. See Examples 3 and 4 below.
Example	**1. 418533005 On examination - joint contracture (disorder)** Map to **M24.59 Contracture of joint; Site unspecified** On examination - joint contracture (disorder), 418533005 Map Entries 1/1 *M24.59 Contracture of joint Site unspecified* MAP SOURCE CONCEPT IS PROPERLY CLASSIFIED TRUE This is the usual scenario, where a concept that is general and does not specify the site maps to a target code in ICD-10 Chapter XIII (M) that is not site-specific and requires a 5th character, and therefore it is correct to add the 5th character **.9 Site unspecified**. **2. 203444008 Postoophorectomy osteoporosis with pathological fracture (disorder)** Map to **M80.19 Postoophorectomy osteoporosis with pathological fracture; Site unspecified**

Postoophorectomy osteoporosis with pathological fracture (disorder), 203444008

Map Entries

1/1 *M80.19* Postoophorectomy osteoporosis with pathological fracture 🏷 MAP SOURCE CONCEPT IS PROPERLY CLASSIFIED
Site unspecified
TRUE

3. 609381007 Angulation deformity of lower limb (finding)

Map to **M21.9 Acquired deformity of limb, unspecified**, plus map advice FIFTH CHARACTER IS REQUIRED TO FURTHER SPECIFY THE SITE (also follows Principle 4 for adding MAPPED FOLLOWING WHO GUIDANCE for acquired versus congenital mapping).

Angulation deformity of lower limb (finding), 609381007

Map Entries

1/1 *M21.9* Acquired deformity of limb, unspecified 🏷 MAPPED FOLLOWING WHO GUIDANCE
TRUE 🏷 FIFTH CHARACTER REQUIRED TO FURTHER SPECIFY THE SITE
🏷 MAP SOURCE CONCEPT IS PROPERLY CLASSIFIED

It is correct to use the map advice FIFTH CHARACTER IS REQUIRED TO FURTHER SPECIFY THE SITE for concepts that use 'leg', 'arm', 'limb', and 'extremity' in their SNOMED CT description, and which map to a target code in ICD-10 Chapter XIII (M) that is not site-specific and requires a 5th character. This is instead of using the fifth character **.8 Other**.
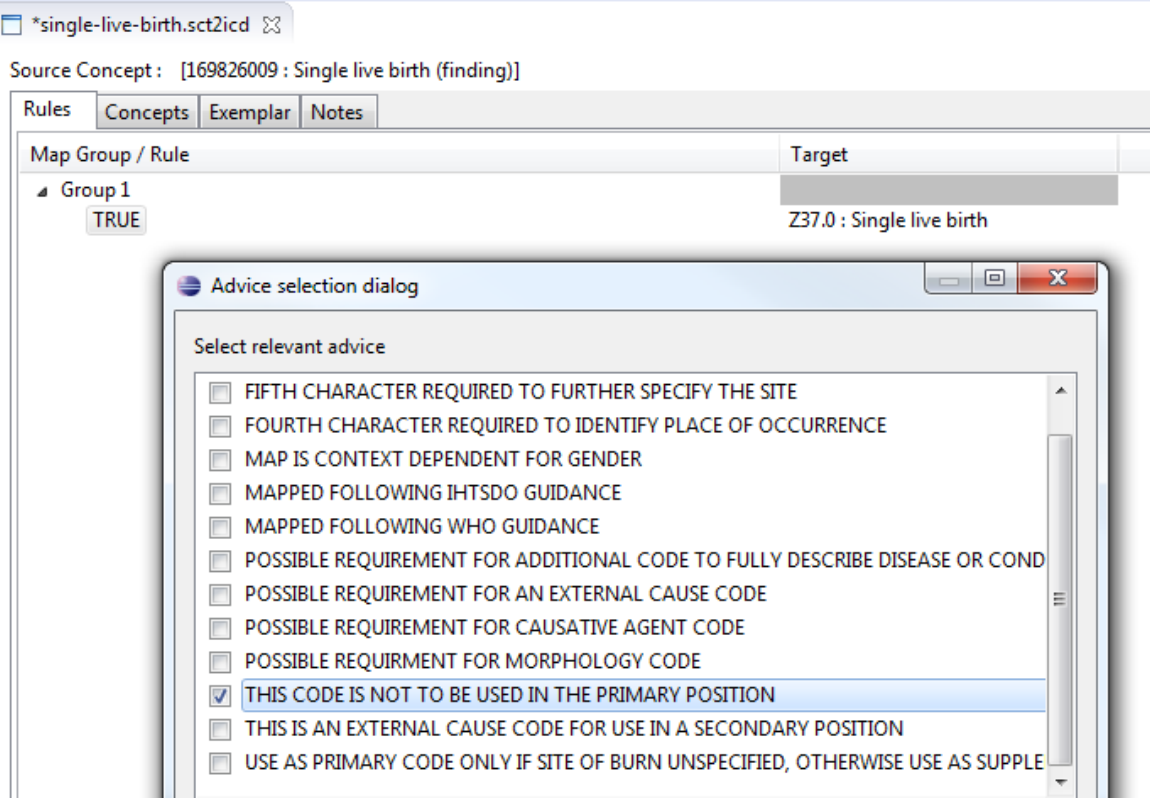
4. 279039007 Low back pain (finding)

Map to **M54.5 Low back pain** plus map advice FIFTH CHARACTER IS REQUIRED TO FURTHER SPECIFY THE SITE. This is because the fifth characters provided to specify the part of the spine involved in ICD-10 Chapter XIII, M40-M54 (except M50 and M51) Dorsopathies, do not include 'low back'. The mapper would have to choose from one of the fifth characters provided, and that choice constitutes a clinical judgment (sites are **M54.56 Lumbar region**, **M54.57 Lumbosacral region**, **M54.58 Sacral and sacrococcygeal region**, and **M54.59 Site unspecified)**.

Low back pain (finding), 279039007

Map Entries
1/1 *M54.5* Low back pain   🏷 FIFTH CHARACTER REQUIRED TO FURTHER SPECIFY THE
        TRUE   SITE
                                      🏷 MAP SOURCE CONCEPT IS PROPERLY CLASSIFIED

Additional information:
Principle 20 explains WHO guidance for mapping to fourth character only and not fifth character for site-specific target ICD-10 codes.

Reference	Mapping Service Team Meeting Minutes, 6th September 2012, 27th September 2012
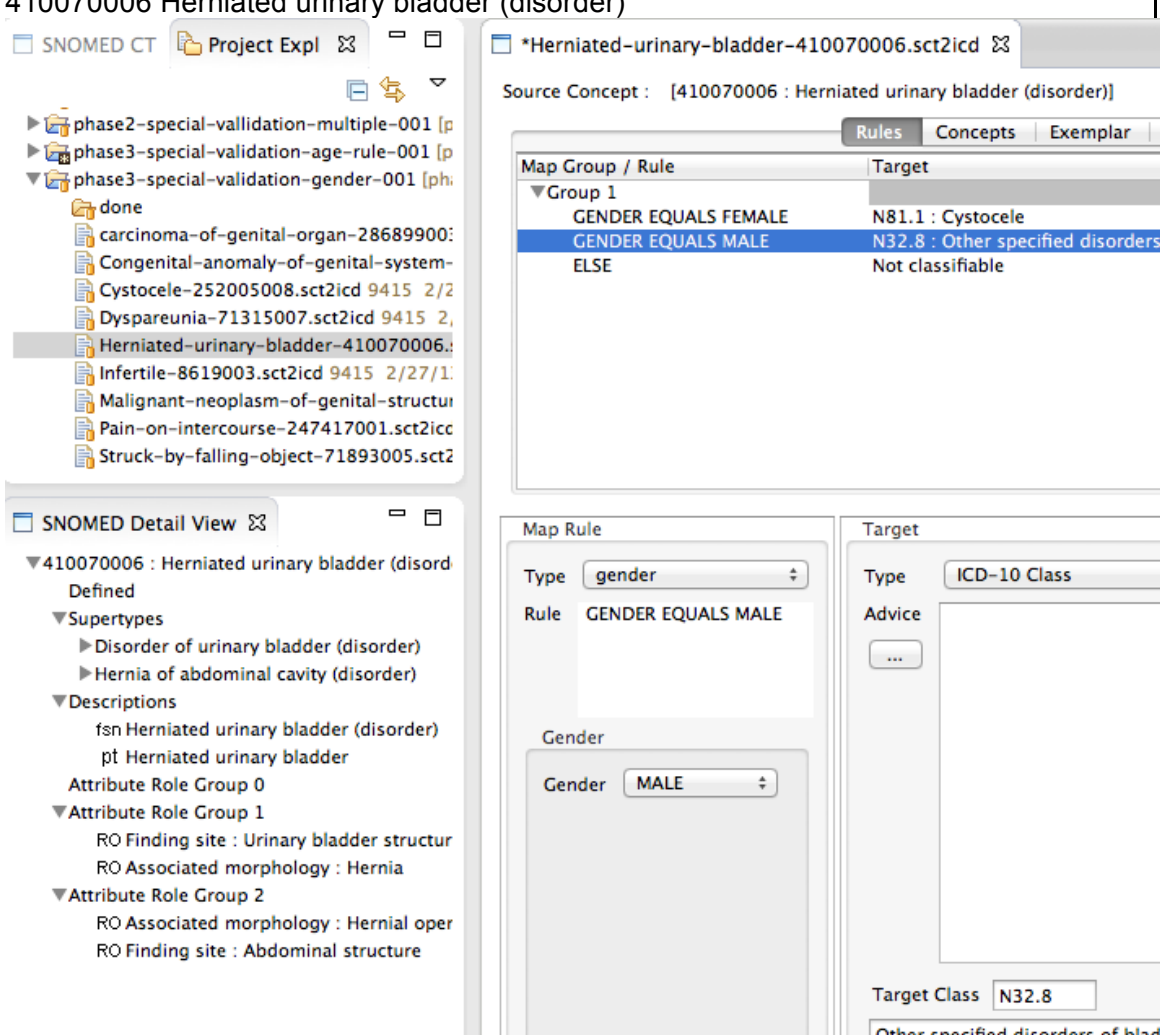
Principle 011: THIS CODE IS NOT TO BE USED IN THE PRIMARY POSITION

Principle Number	**011**
Title	**THIS CODE IS NOT TO BE USED IN THE PRIMARY POSITION**
Date of Origination	23 January 2013
Date of Revision	
Principle	The map advice of THIS CODE IS NOT TO BE USED IN THE PRIMARY POSITION is to be added when the SNOMED concept maps to an ICD-10 code that would only be used in a secondary position. This circumstance is different from the current advice THIS IS AN EXTERNAL CAUSE CODE FOR USE IN A SECONDARY POSITION.

Example	**169826009 |Single live birth (finding)|**
	ICD-10 code: Z37.0, Single live birth
Reference	ICD 10 2010 Volume 1 note at Z37.-.

Principle 012: MAP IS CONTEXT DEPENDENT FOR GENDER

Principle Number	**012**
Title	**MAP IS CONTEXT DEPENDENT FOR GENDER**
Date of Origination	23 January 2013
Date of Revision	
Principle	If the source concept does not assert gender yet only gender restricted target codes are found within ICD-10, the map will be considered context dependent.

The Mapping Specialist selects the gender in the Map Rule to add each gender separately. It is not necessary to add the map advice MAP IS CONTEXT DEPENDENT |

	FOR GENDER since this advice is added automatically during QA checks
Example	410070006 Herniated urinary bladder (disorder)
Reference	ICD-10 Alphabetical Index

Principle 013: POSSIBLE REQUIREMENT FOR ADDITIONAL CODE TO FULLY DESCRIBE DISEASE OR CONDITION
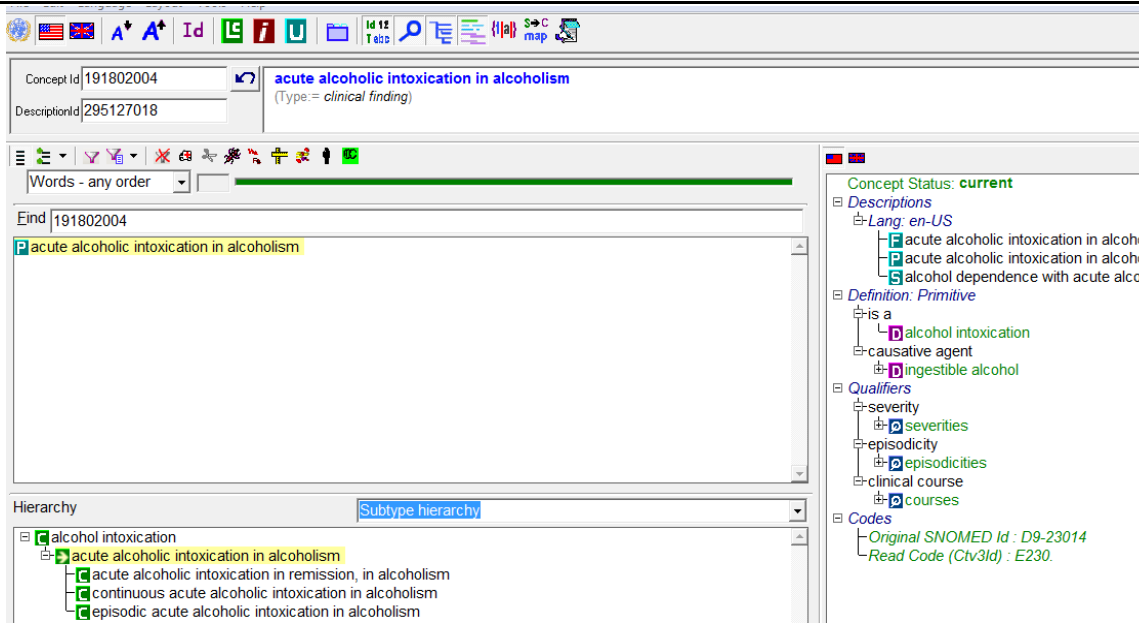
Principle Number	**013**
Title	**POSSIBLE REQUIREMENT FOR ADDITIONAL CODE TO FULLY DESCRIBE DISEASE OR CONDITION**
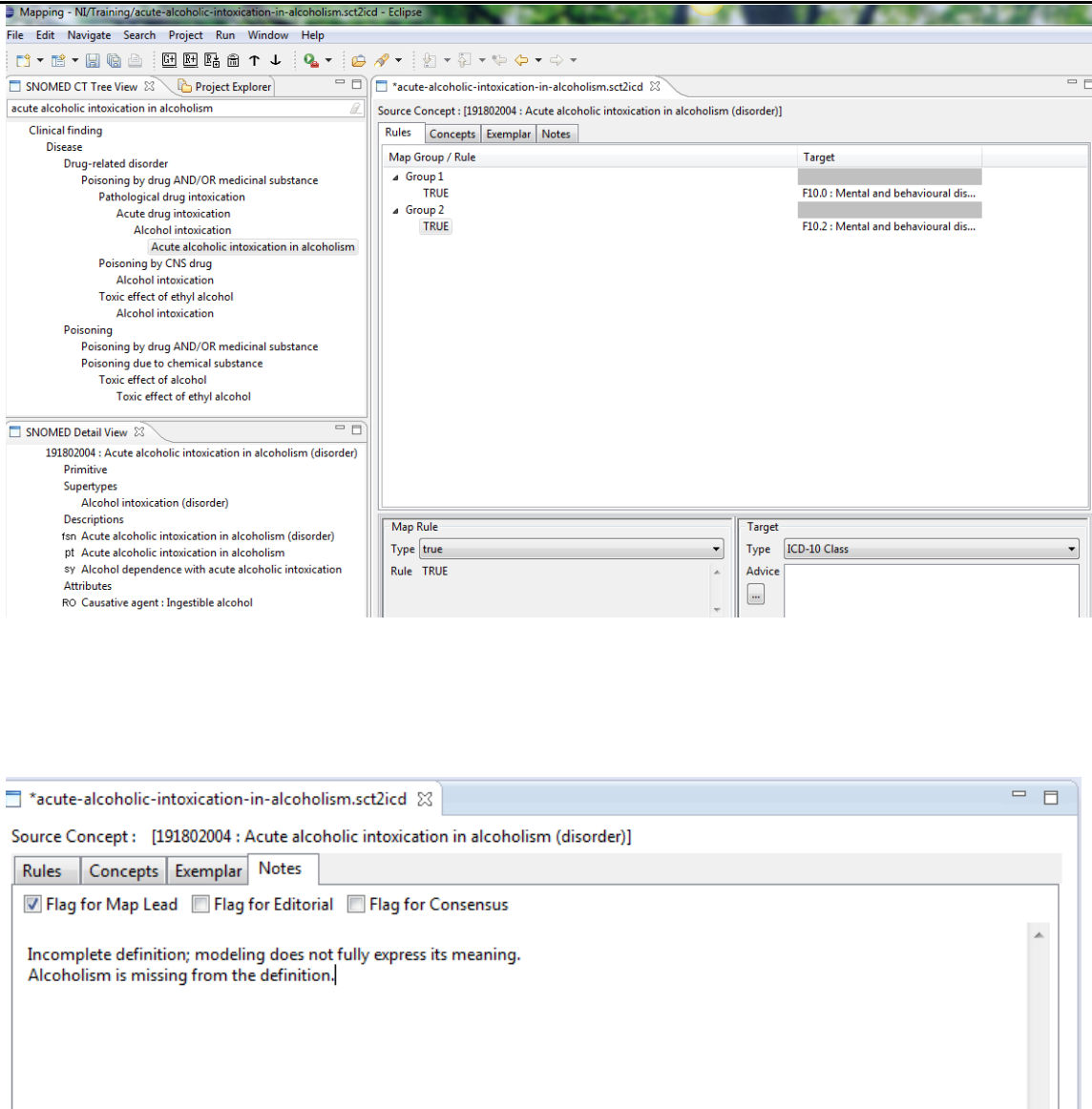
Date of Origination	23 January 2013
Date of Revision	23 July 2014, 05 November 2014
Principle	The map advice of POSSIBLE REQUIREMENT FOR ADDITIONAL CODE TO FULLY DESCRIBE DISEASE OR CONDITION is to be added when the SNOMED concept maps to an ICD-10 code that has the Tabular instruction to "Use additional code, if desired, to identify…" Note: There is separate advice for requirement to add an external cause code *(see Principle 23)* and requirement for causative agent *(see Principle 08).*

Example (s)	**19399000 |Acute exudative otitis media (disorder)|**
	    ICD-10 Index
	Otitis
	 -media
	- - acute or subacute
	- - - exudative H65.1
	
	    ICD-10 Tabular List
	H65 Nonsuppurative otitis media
	Includes: with myringitis
	Use additional membrane code (H72), if desired, to identify presence of perforated tympanic membrane.
	
	Map: Group 1: Target code H65.1 Other acute non-suppurative otitis media with the map advice POSSIBLE REQUIREMENT FOR ADDITIONAL CODE TO FULLY DESCRIBE THE DISEASE OR CONDITION.
	
	367561000119103 |Hereditary diffuse mesangiocapillary glomerulonephritis (disorder)|
	
	    ICD-10 Index
	 Glomerulonephritis — *see also* <u>Nephritis</u> N05.-
	Note: Where a term is indexed only at the three-character level, e.g. N01.-, reference should be made to the list of fourth-character subdivisions in Volume 1 at N00-N08.
	- diffuse
	- - mesangiocapillary code to N00-N07 with fourth character .5 N05.5
	
	    ICD-10 Tabular List
	
	Glomerular diseases (N00-N08)
	
	    Use additional code, if desired, to identify associated chronic kidney disease (<u>N18.-</u>) .

	Use additional code, if desired, to identify external cause (Chapter XX) or presence of renal failure, Acute (N17), Chronic (N18.-), or Unspecified (N19.)
Exceptions	**Map** 1/1 *N07.5* Hereditary nephropathy, not elsewhere classified Diffuse mesangiocapillary glomerulonephritis TRUE POSSIBLE REQUIREMENT FOR ADDITIONAL CODE TO FULLY DESCRIBE DISEASE OR CONDITION Note: No need for External Cause required advice as the concept is described as hereditary *(see Principle 23).* • **This principle does not apply to code ranges (I20-25) and (I60-69).** Do not use the advice POSSIBLE REQUIREMENT FOR ADDITIONAL CODE TO FULLY DESCRIBE THE DISEASE OR CONDITION to capture the presence of hypertension for either of these code ranges. **Ischemic heart diseases (I20-I25)** *Incl.:* with mention of hypertension (conditions in I10 and I15. -) Use additional code, if desired, to identify presence of hypertension. **Cerebrovascular diseases (I60-I69)** *Incl.:* with mention of hypertension (conditions in I10 and I15.-) Use additional code, if desired, to identify presence of hypertension. • **U00-U89 Codes for special purposes** At the beginning of Chapter 1 Certain infectious and parasitic diseases there is an instruction to use an additional code (U80-U89), if desired, to identify the antibiotic to which a bacterial agent is resistant. Adding this map advice to every map for a concept that has a target code A00-B99 but is not specified as resistant to antibiotics is not appropriate.

Principle 014: HOW TO MAP PARTIALLY DEFINED SNOMED CT CONCEPTS
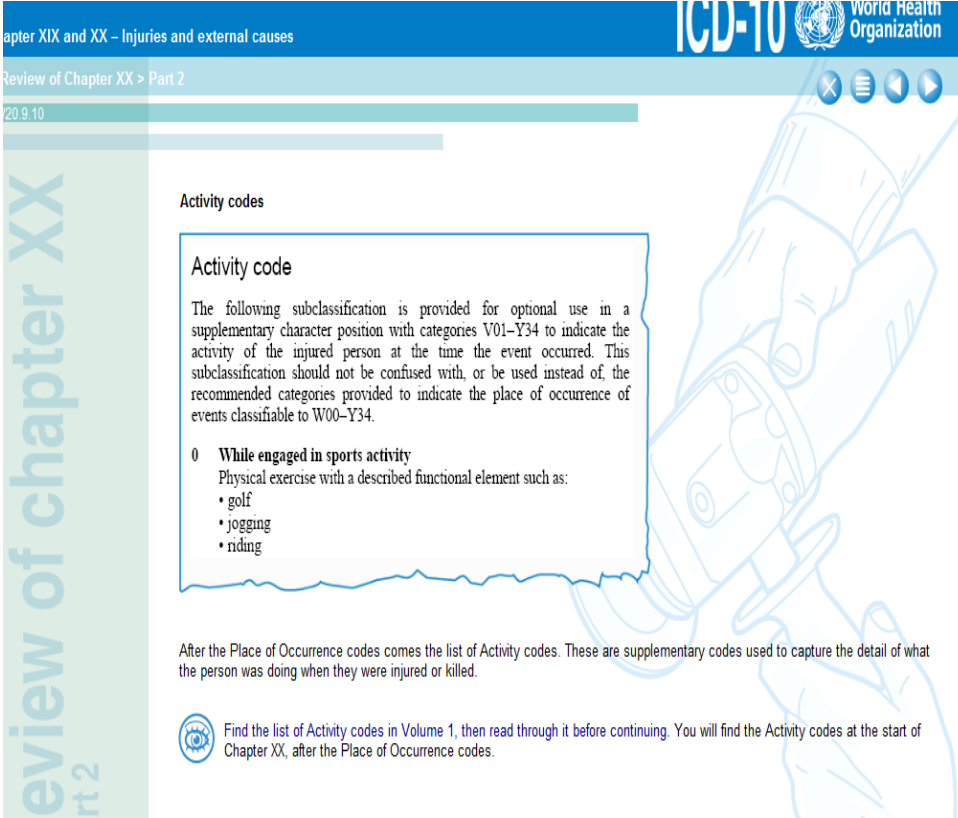
Principle Number	**014**
Title	**HOW TO MAP PARTIALLY DEFINED SNOMED CT CONCEPTS**

Date of Origination	23 January 2013
Date of Revision	2 July 2014
Principle	A SNOMED concept that is not fully defined by its SNOMED relationships, must be fully mapped to the definition in the Fully Specified Name and referred for re-defining to ensure the MAP is Understandable, Useful & Reproducible. •Tick the check box in the Notes section of the Mapping Tool for *Flag for Map Lead*. Following the partial map principle the SNOMED CT concept ID **191802004 |Acute Alcoholic Intoxication in Alcoholism (disorder)|**, in the example below, is not fully defined as alcoholism and is only defined as alcohol intoxication but the Mapping Specialist must fully code to the meaning expressed in the Fully Specified Name and flag for Map Lead using the standard phrase, *noting down which part of the definition is missing.* Therefore the map is two ICD-10 codes following WHO ICD-10 guidance for coding acute-on-chronic conditions (F10.0 and F10.2).
Example	 **191802004 |Acute alcoholic intoxication in alcoholism (disorder)|**

Reference	CliniClue Xplore:SctIntl-20120731

Principle 015: ACTIVITY CODE
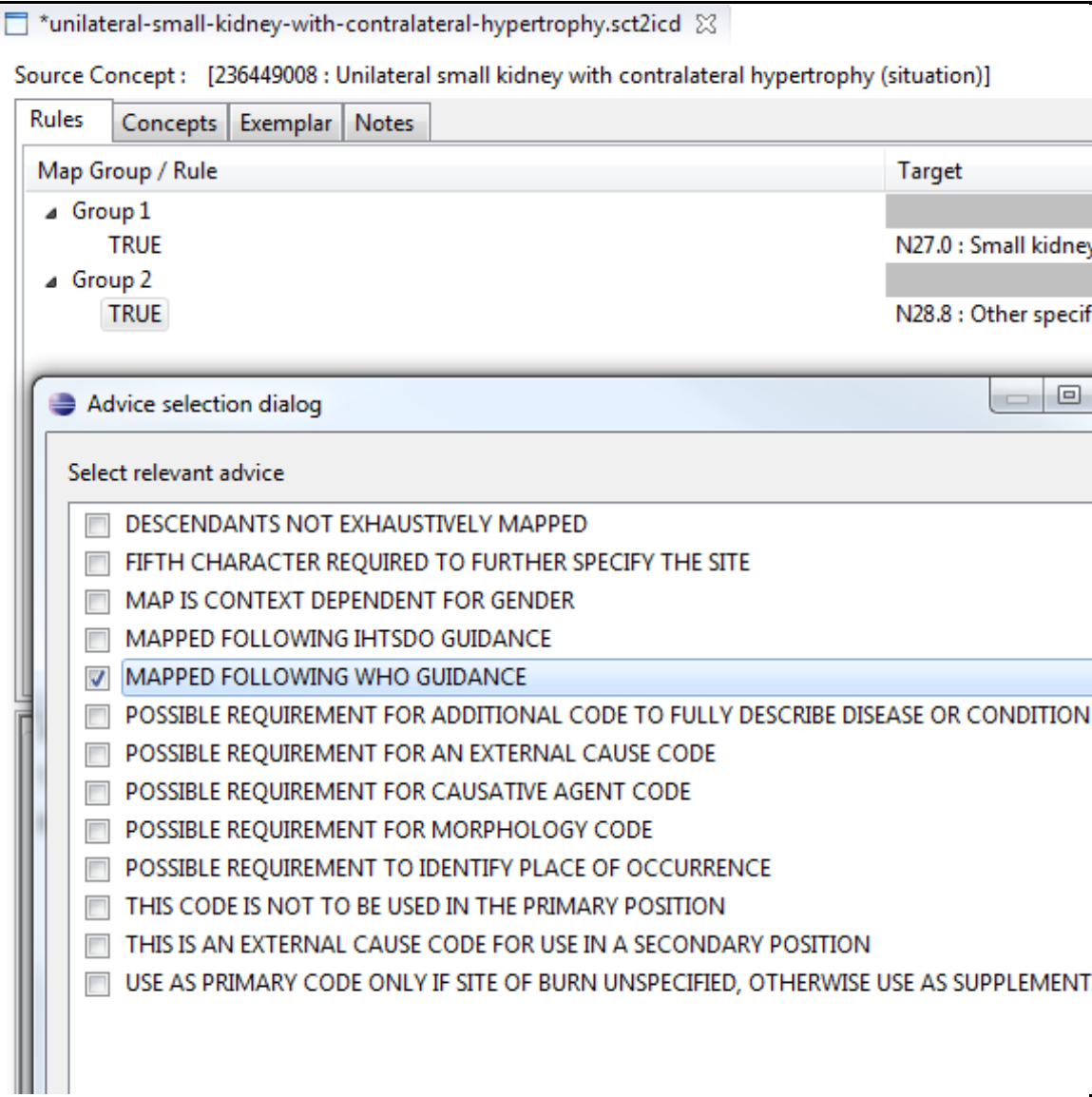
Principle Number	015
Title	ACTIVITY CODE
Date of Origination	23 January 2013
Date of	

Revision	
Principle	The Mapping Service Team will not map SNOMED CT concepts to the supplementary Activity code and will not be providing guidance related to or including the Activity code. Assignment of the Activity code is based on country –specific rules with each region either not adopting the code (for example, in the UK) or following local conventions.
Example	
Reference	ICD-10 Online Training (version year 2008)

Principle 016: MAPPING CONTEXT: ACQUIRED VERSUS CONGENITAL
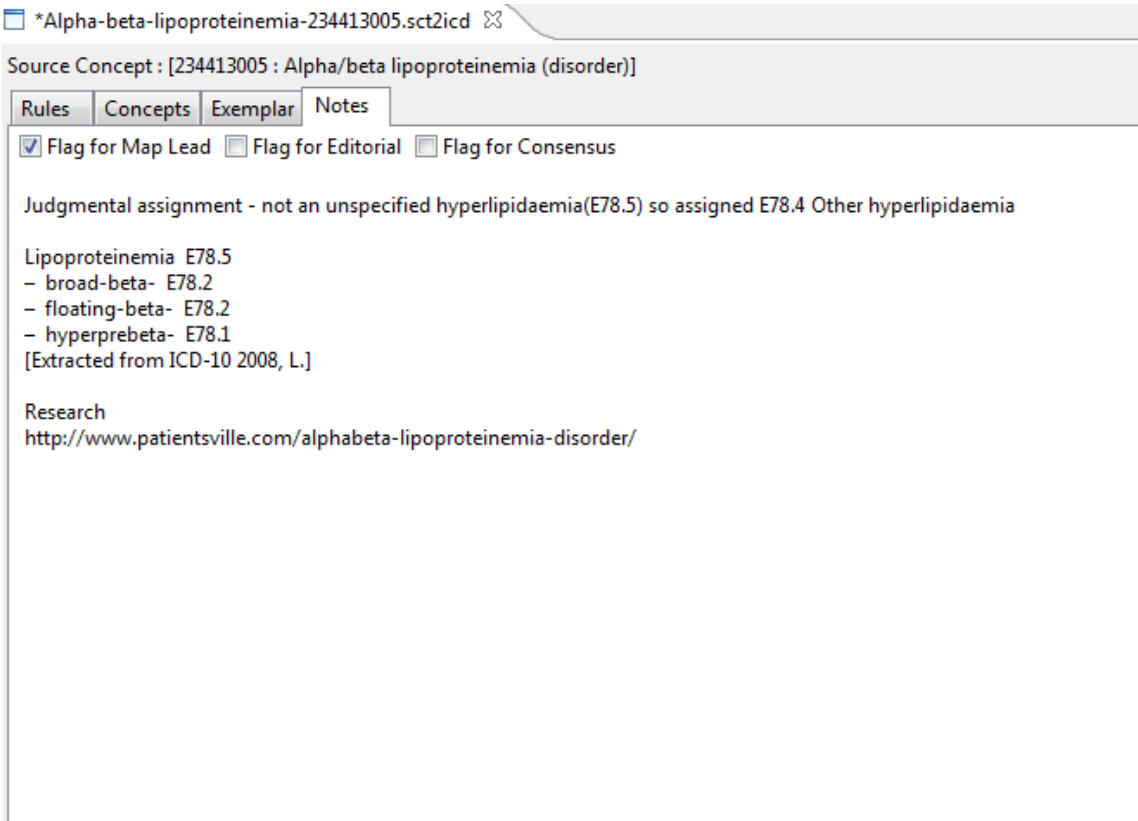
Principle Number	016
Title	**MAPPING CONTEXT: ACQUIRED VERSUS CONGENITAL**
Date of Origination	23 January 2013
Date of	8 July 2014

Revision	
Principle	A source concept that identifies origination as a congenital or acquired condition will be mapped to a target of congenital or acquired classification should one exist. If a source concept is general (i.e. does not specify congenital or acquired) the ICD-10 index will be searched for guidance of a default Map member, either "congenital" or "acquired". When a default is provided, this context will be employed to create one appropriate map adding map advice MAPPED FOLLOWING WHO GUIDANCE. When the source concept is general and no default is provided in the ICD-10 index, the Mapping Specialist will create map rules relevant for all appropriate targets of congenital and acquired or else "not classifiable" when context information is not available. This is a very rare scenario as ICD-10 almost always provides a default ICD-10 code in the alphabetical index.
Example(s)	**236449008 |Unilateral small kidney with contralateral hypertrophy (disorder)|** In SNOMED CT, this concept is defined as a unilateral small kidney with no further detail. Unilateral small kidney only has an ICD-10 code for the acquired condition; contralateral hypertrophy has a default code of the acquired condition in the ICD-10 index. Small(ness) - kidney (unknown cause) N27.9 -- unilateral N27.0 **Hypertrophy, hypertrophic** – kidney (compensatory) N28.8 – – congenital Q63.3
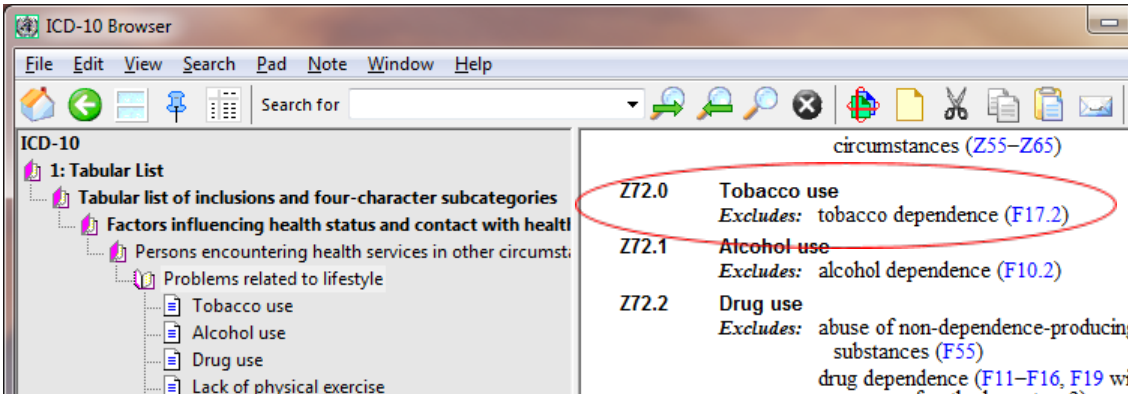
*unilateral-small-kidney-with-contralateral-hypertrophy.sct2icd ⊠

Source Concept : [236449008 : Unilateral small kidney with contralateral hypertrophy (situation)]

| Rules | Concepts | Exemplar | Notes |

Map Group / Rule	Target
⊿ Group 1	
TRUE	N27.0 : Small kidney,
⊿ Group 2	
TRUE	N28.8 : Other specifi

Advice selection dialog

Select relevant advice

- ☐ DESCENDANTS NOT EXHAUSTIVELY MAPPED
- ☐ FIFTH CHARACTER REQUIRED TO FURTHER SPECIFY THE SITE
- ☐ MAP IS CONTEXT DEPENDENT FOR GENDER
- ☐ MAPPED FOLLOWING IHTSDO GUIDANCE
- ☑ MAPPED FOLLOWING WHO GUIDANCE
- ☐ POSSIBLE REQUIREMENT FOR ADDITIONAL CODE TO FULLY DESCRIBE DISEASE OR CONDITION
- ☐ POSSIBLE REQUIREMENT FOR AN EXTERNAL CAUSE CODE
- ☐ POSSIBLE REQUIREMENT FOR CAUSATIVE AGENT CODE
- ☐ POSSIBLE REQUIREMENT FOR MORPHOLOGY CODE
- ☐ POSSIBLE REQUIREMENT TO IDENTIFY PLACE OF OCCURRENCE
- ☐ THIS CODE IS NOT TO BE USED IN THE PRIMARY POSITION
- ☐ THIS IS AN EXTERNAL CAUSE CODE FOR USE IN A SECONDARY POSITION
- ☐ USE AS PRIMARY CODE ONLY IF SITE OF BURN UNSPECIFIED, OTHERWISE USE AS SUPPLEMENTA

| Reference | Mapping SNOMED CT to ICD-10 Technical Specifications, 11.5 Mapping Context: Acquired versus Congenital
Principle 04 MAPPED FOLLOWING WHO GUIDANCE |

Principle 017: JUDGMENTAL ASSIGNMENT OF THE TARGET ICD-10 CODE

Principle Number	017
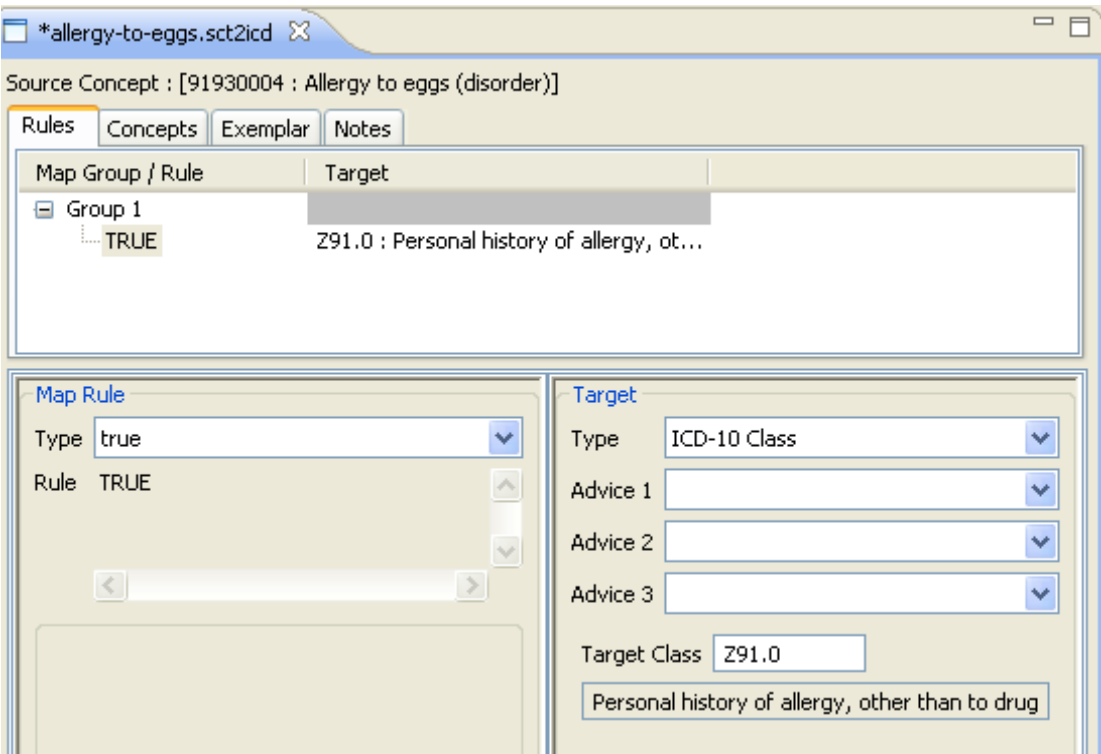
Title	**JUDGMENTAL ASSIGNMENT OF THE TARGET ICD-10 CODE**
Date of Origination	23 January 2013
Date of Revision	
Principle	If the clinical finding, event, or situation represented by the SNOMED CT concept cannot be located in the ICD-10 Index, Volume3, then a judgmental assignment of a code(s) must be made. The Mapping Specialist uses experience, logic, reason, precedent and research to form an opinion allowing a decision to be reached about which is the most appropriate ICD-10 code to assign as the target map.
Example	How to Map 'Judgmental' codes: 1 Check all guidance, analyze the index and use all other resources and if a code is not explicitly stated then a subjective judgment is required. 2 if there is a debate as to the correct code then flag up in the Notes section that a "judgmental assignment" has been made with **all the supporting evidence and references included as Notes**, and check the "Flag for Map Lead" tick box. ☐ *Alpha-beta-lipoproteinemia-234413005.sct2icd ⊠ Source Concept : [234413005 : Alpha/beta lipoproteinemia (disorder)] Rules | Concepts | Exemplar | Notes ☑ Flag for Map Lead ☐ Flag for Editorial ☐ Flag for Consensus Judgmental assignment - not an unspecified hyperlipidaemia(E78.5) so assigned E78.4 Other hyperlipidaemia Lipoproteinemia E78.5 – broad-beta- E78.2 – floating-beta- E78.2 – hyperprebeta- E78.1 [Extracted from ICD-10 2008, L.] Research http://www.patientsville.com/alphabeta-lipoproteinemia-disorder/

Principle 018: FOLLOW WHO GUIDANCE, NOT COUNTRY-SPECIFIC GUIDANCE

Principle Number	018
Title	**FOLLOW WHO GUIDANCE, NOT COUNTRY-SPECIFIC GUIDANCE**
Date of Origination	23 January 2013
Date of Revision	2 July 2014
Principle	Mapping is to be performed according to WHO guidelines, even if those guidelines differ from country-specific guidelines. WHO guidelines have the ultimate authority in the outcome of codes.
Example	In the United Kingdom, tobacco use of any amount is coded to *F17.1, Mental and behavioral disorders due to use of tobacco, harmful use*. However, the WHO index clearly leads to code Z72.0. For these types of scenarios, WHO indexing will be followed, not country-specific guidelines or norms. The map advice MAPPED FOLLOWING WHO GUIDANCE is not required.
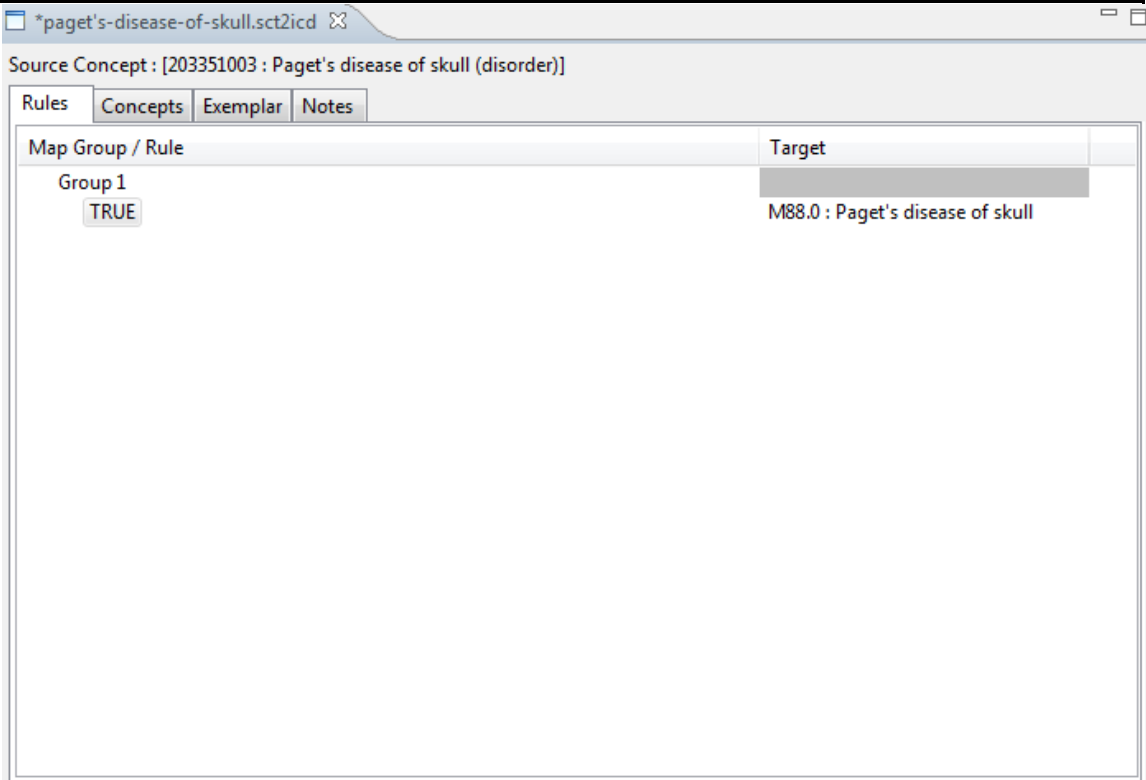
Principle 019: ALLERGIES AND SENSITIVITIES

Principle Number	019
Title	**ALLERGIES AND SENSITIVITIES**
Date of Origination	23 January 2013
Date of Revision	
Principle	This is considered a *propensity to* rather than an acute allergic reaction. Map to personal history of allergy.

Example(s)	91930004 |Allergy to eggs (disorder)|
Reference	Agreed at consensus management panel
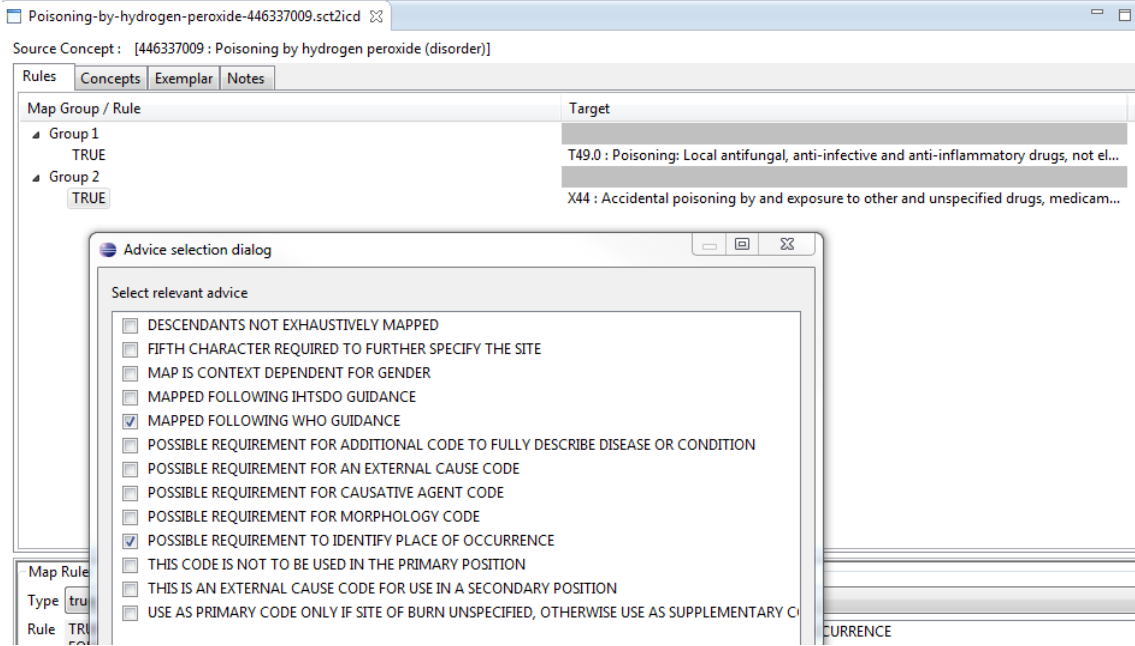
Principle 020: WHO GUIDANCE FOR MAPPING TO FOURTH CHARACTER ONLY AND **NOT FIFTH CHARACTER FOR SITE SPECIFIC TARGET ICD-10 CODES**

Principle Number	**020**
Title	**WHO GUIDANCE FOR MAPPING TO FOURTH CHARACTER ONLY AND NOT FIFTH CHARACTER FOR SITE SPECIFIC TARGET ICD-10 CODES**
Date of Origination	23 January 2013
Date of Revision	8 July 2014
Principle	In ICD-10 Chapter XIII ('M') 5th characters are provided to add specificity to the 'site' of a particular condition. The wording at the beginning of Chapter XIII states that they are to be used "With appropriate categories".

ICD-10 categories such as **M70.2 Olecranon bursitis** and **M88.0 Paget's disease of skull** do not require the addition of a 5th digit site code as they are site specific at the 4th character code, i.e. the site information is already captured in the 4 character code. |

	The map advice MAPPED FOLLOWING WHO GUIDANCE is unnecessary.
Example	Source Concept : [203351003 : Paget's disease of skull (disorder)] Rules | Concepts | Exemplar | Notes Map Group / Rule — Target Group 1 TRUE — M88.0 : Paget's disease of skull
Reference	WHO guidance see Appendix I for copy of email
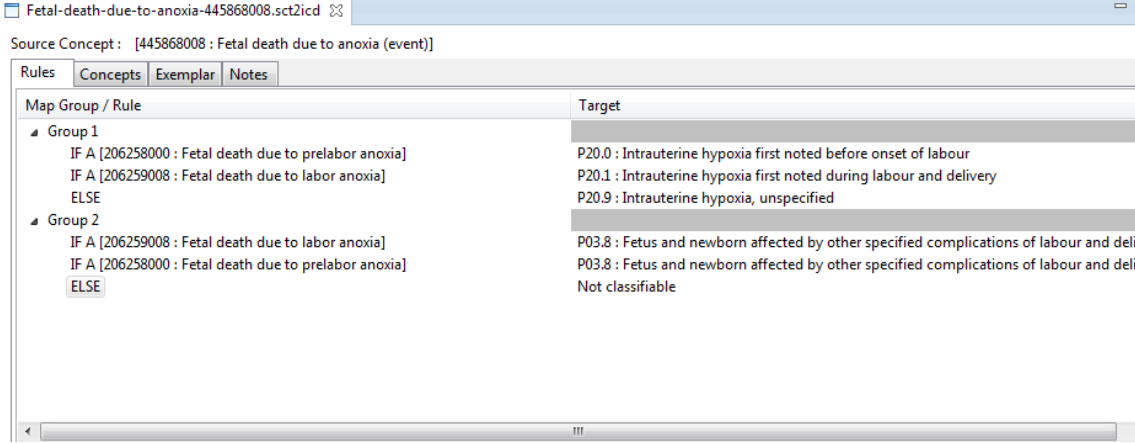
Principle 021: ADVICE REQUIRED FOR POISONING EXTERNAL CAUSE CODES

Principle Number	021
Title	**ADVICE REQUIRED FOR POISONING EXTERNAL CAUSE CODES**
Date of Origination	23 January 2013
Date of Revision	8 July 2014, 24 February 2016
Principle	WHO guidance says to assume that a poisoning is accidental when intent is not specified. Two Map advices are required on an external cause code in a second group for a poisoning assumed to be accidental: MAPPED FOLLOWING WHO GUIDANCE POSSIBLE REQUIREMENT TO IDENTIFY PLACE OF OCCURRENCE

	Intoxication of addictive drugs and alcohol is considered a type of poisoning in the SNOMED CT hierarchy. Although 25508008 |Pathological drug intoxication (disorder)| has a parent of poisoning in SNOMED CT, these concepts are mapped to the mental health chapter of ICD-10 and thus are excluded from the application of this principle.

Example	**446337009 |Poisoning by hydrogen peroxide (disorder)|**
	
	Poisoning-by-hydrogen-peroxide-446337009.sct2icd
	
	Source Concept : [446337009 : Poisoning by hydrogen peroxide (disorder)]
	
	Rules Concepts Exemplar Notes
	
	Map Group / Rule Target
	Group 1
	    TRUE T49.0 : Poisoning: Local antifungal, anti-infective and anti-inflammatory drugs, not el...
	Group 2
	    TRUE X44 : Accidental poisoning by and exposure to other and unspecified drugs, medicam...
	
	Advice selection dialog
	
	Select relevant advice
	☐ DESCENDANTS NOT EXHAUSTIVELY MAPPED
	☐ FIFTH CHARACTER REQUIRED TO FURTHER SPECIFY THE SITE
	☐ MAP IS CONTEXT DEPENDENT FOR GENDER
	☐ MAPPED FOLLOWING IHTSDO GUIDANCE
	☑ MAPPED FOLLOWING WHO GUIDANCE
	☐ POSSIBLE REQUIREMENT FOR ADDITIONAL CODE TO FULLY DESCRIBE DISEASE OR CONDITION
	☐ POSSIBLE REQUIREMENT FOR AN EXTERNAL CAUSE CODE
	☐ POSSIBLE REQUIREMENT FOR CAUSATIVE AGENT CODE
	☐ POSSIBLE REQUIREMENT FOR MORPHOLOGY CODE
	☑ POSSIBLE REQUIREMENT TO IDENTIFY PLACE OF OCCURRENCE
	☐ THIS CODE IS NOT TO BE USED IN THE PRIMARY POSITION
	☐ THIS IS AN EXTERNAL CAUSE CODE FOR USE IN A SECONDARY POSITION
	☐ USE AS PRIMARY CODE ONLY IF SITE OF BURN UNSPECIFIED, OTHERWISE USE AS SUPPLEMENTARY C...
	
	Map Rule
	Type tru
	Rule TRU

Reference	Mapping Service Team Meeting Minutes 20 November 2012 Principle 04 MAPPED FOLLOWING WHO GUIDANCE

Principle 022: PERINATAL CONDITIONS DUE TO MATERNAL FACTORS

Principle Number	**022**
Title	**PERINATAL CONDITIONS DUE TO MATERNAL FACTORS**
Date of Origination	23 January 2013
Date of Revision	27 March 2014
Principle	When mapping a concept that describes a fetus/newborn that has been affected by a maternal condition, two codes are required: one for the *effect* on the baby, and the second code from block P00–P04 to show the *cause*. This applies even when this
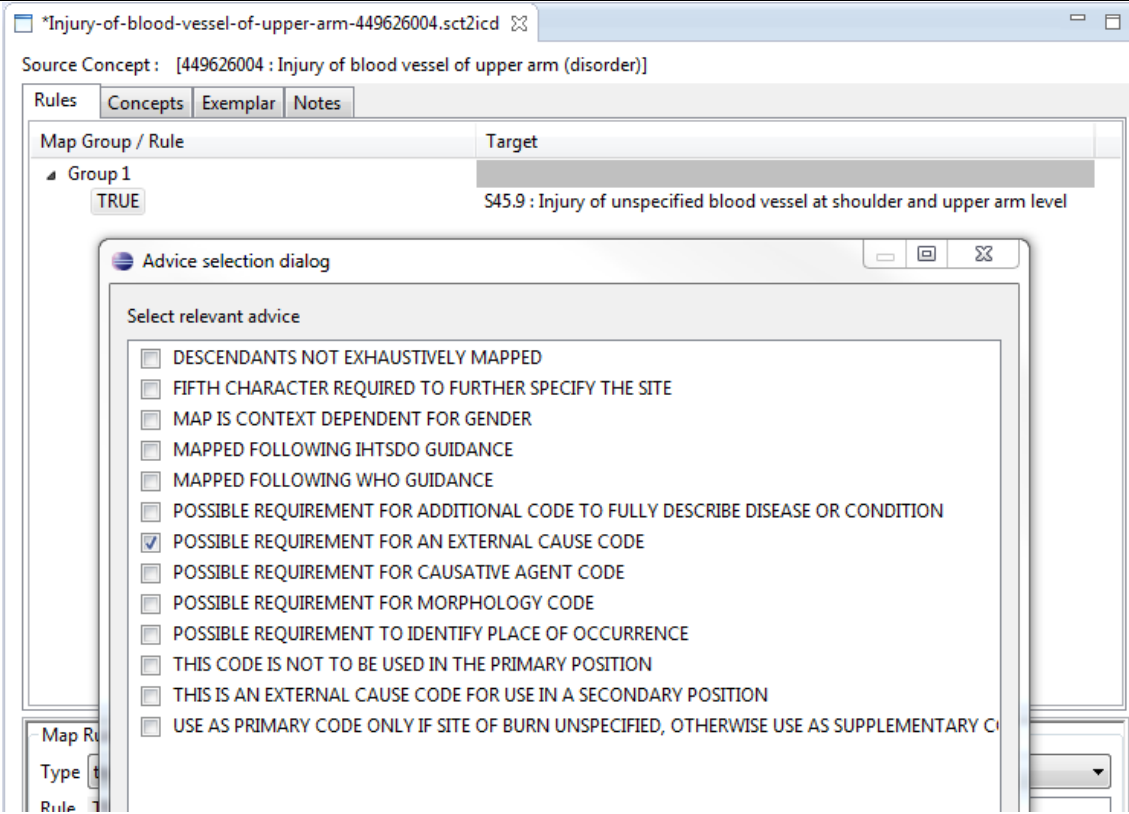
	condition results in the death of the fetus/ newborn. The ICD-10 description of block P00–P04 is **Fetus and newborn affected by maternal factors and by complications of pregnancy, labor and delivery**. The conditions in this block are the mother's conditions; these codes are used to show that the problem the mother incurred during the pregnancy, labor or delivery had an effect on the fetus or newborn. There are neither code notes in the ICD Index nor instructions from Volume 2 to address this situation. However, WHO has inserted this guidance within its online training (link below). When the effect on the baby is unknown, map to the appropriate P00-P04 code and add advice of POSSIBLE REQUIREMENT FOR ADDITIONAL CODE TO FULLY DESCRIBE DISEASE OR CONDITION.
Example	**445868008 |Fetal death due to anoxia (event)|** **Anoxia R09.0** - intrauterine — see **Hypoxia, intrauterine** **Hypoxia** — *see also* Anoxia - intrauterine P20.9 - - first noted - - - before onset of labor P20.0 - - - during labor and delivery P20.1
Example of unknown effect:	**206035009 |Fetal or neonatal effect of maternal complication of pregnancy (disorder)|**

Reference	WHO Online Training Link http://apps.who.int/classifications/apps/icd/icd10training/. See *Chapter XVI – Certain conditions originating in the perinatal period, Overview of chapter [16.2.40], and Review of the chapter [16.3.60]*. Appendix 2 at the end of this document has further information on various national fetal/newborn guidelines.

Principle 023: POSSIBLE REQUIREMENT FOR AN EXTERNAL CAUSE CODE

Principle Number	**023**
Title	**POSSIBLE REQUIREMENT FOR AN EXTERNAL CAUSE CODE**
Date of Origination	23 January 2013, 11 March 2014, 5 November 2014
Date of Revision	

Principle	An external cause code from Chapter XX is used in combination with a code from another chapter to add information, especially if the code instructs you to add such an additional code. The external cause code should always be sequenced AFTER the disease chapter code.
	
	An external cause code from **Chapter XX External causes of morbidity and mortality V01-Y98** is designed for the classification of:
	
	      • external events and circumstances which are the cause of injury (includes transport accidents)
	      • poisoning
	      • other adverse effects

	If a Mapping Specialist assigns an ICD-10 code which requires an external cause code to provide the reason why it happened, and the information is not available in the description for the concept to be mapped (for example, to classify the circumstances of an injury) then the Mapping Specialist must add the following map advice:
	
	POSSIBLE REQUIREMENT FOR AN EXTERNAL CAUSE CODE
	
	EXCEPTIONS: There are instances where an instruction is provided at a Block or Chapter Level in ICD-10 but good judgment would indicate that the advice is not relevant to every code in that block or chapter.
	
	Examples:
	• It is not necessary to assign the external cause map advice, even if directed to do so at ICD-10 block level, <u>if it is clearly not relevant</u> for example:
	
	   ➢ Do not use external cause advice to identify a drug for every Diabetes Mellitus (E10-E14) not specified as drug induced.
	   ➢ Do not add external cause advice if the concept is described as idiopathic
	   ➢ If the cause is coded do not use external cause advice. For example, do not use this advice if the concept is a kidney disorder **due to diabetes** that includes a target code in the block Renal failure (N17-N19) that has the advice at block level *Use additional external cause code (Chapter XX), if desired, to identify external agent at Block level*.

Example	**449626004 |Injury of blood vessel of upper arm (disorder)|**

Reference	WHO ICD-10 (2010) Online Training
	http://apps.who.int/classifications/apps/icd/icd10training/http://apps.who.int/classifications/apps/icd/icd10training/
	http://apps.who.int/classifications/apps/icd/icd10training/

http://apps.who.int/classifications/apps/icd/icd10training/
http://apps.who.int/classifications/apps/icd/icd10training/

Principle 024: MAPPING CONTEXT: AGE OF ONSET (RETIRED)
http://apps.who.int/classifications/apps/icd/icd10training/

Principle Number	024 - RETIRED
Title	MAPPING CONTEXT: AGE OF ONSET
Date of Origination	23 January 2013
Date of Revision	RETIRED 23 September 2015
Principle	No Map Rule restrictions for age will be applied in cases where there is a properly classified ICD-10 Map target.
	Examples:
	● 239796000 |Juvenile arthritis (disorder)| will not be flagged for age context. This concept maps to M08.99, Juvenile arthritis, unspecified.
	● 71111008 |Juvenile glaucoma (disorder)| will not be flagged for age context.

Example(s)	This concept maps to H40.9 Glaucoma, unspecified. 1. Map Rules for age will not be applied to main SNOMED CT concepts that are high-level (greater than 10 descendants) and have a default code in the ICD-10 alphabetical index. The exception would be for those conditions in ICD-10 that include a decisive age range to be considered even before applying a target ICD-10 code at default level, for example, by adding a current age rule for bronchitis (*see principle 0025*). **450376009 |Hemorrhage of intracranial meningeal space (disorder)|** has greater than 10 descendants and has a default target code in the ICD-10 index; therefore no age rule is required for perinatal age of onset which is listed as a modifier under the lead term in the ICD-10 alphabetical index.
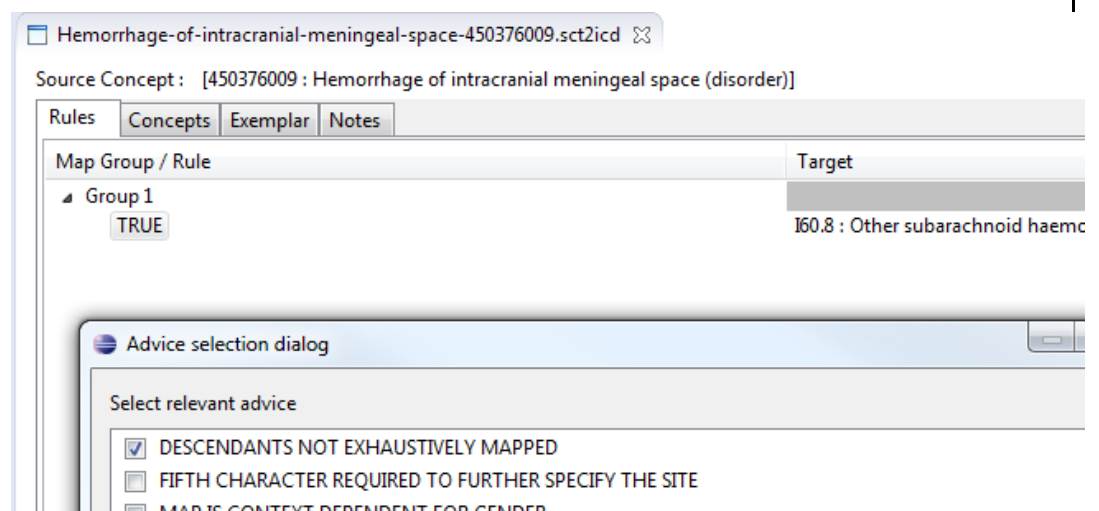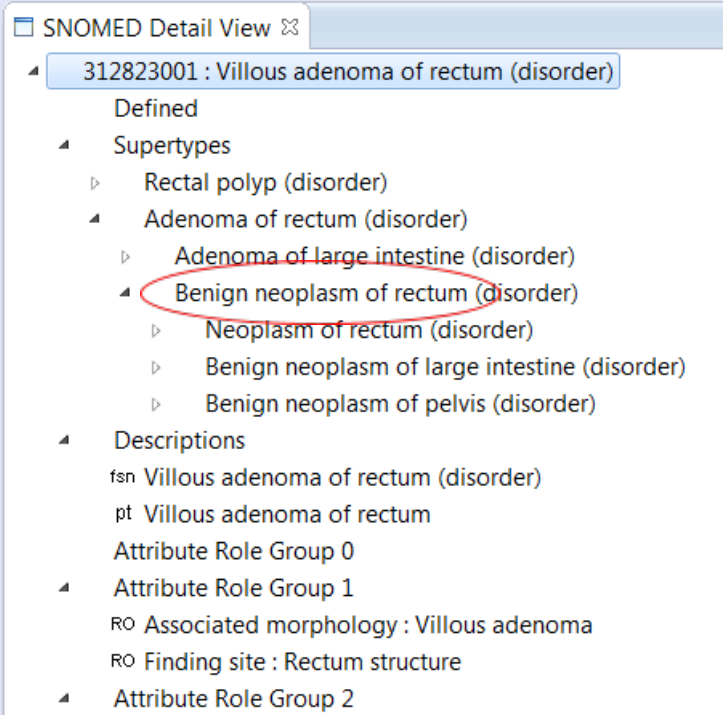
	2 For those main SNOMED CT concepts that are low-level (less than 10 descendants), a condition related to age of onset may be included in SNOMED CT as a descendant.

If an appropriate age-related condition *is* included as a descendant, a map rule showing that the mapping of the parent concept is dependent on age of onset is not required.

If an age-related condition is **not** listed as a descendant, then a map rule showing the mapping of the main concept is dependent on age of onset is required.

447045002 \|Abscess of paraumbilical region (disorder)\| has no descendant describing a perinatal age of onset.

3 The Map Rule for age context should be placed just above the ELSE rule.

4 Definitions for common phases of life will be employed when SNOMED CT or ICD-10 employ descriptive terms. See Appendix 3 for guidance on age ranges. |
| Reference | Mapping SNOMED CT to ICD-10 Technical Specifications Version 2.0, 11.4 Mapping Context: Patient Age at Onset |

Principle 025: CURRENT PATIENT AGE

Principle Number	025
Title	**CURRENT PATIENT AGE**
Date of Revision	20151209
Date of Origination	23 January 2013
Principle	The addition of a map rule of 'Current patient age' allows identification in SNOMED CT that mapping to the ICD-10 target code is based on the actual chronological age of the patient.
Example	**32398004 |Bronchitis (disorder)|** Bronchitis has an age range entry in the ICD-10 alphabetical index of "15 years and above" to be considered before applying a target ICD-10 code at default level. ICD-10 alphabetical index entry for Bronchitis: **Bronchitis** (diffuse) (fibrinous) (hypostatic) (infective) (membranous) (with tracheitis) (15 years of age and above) J40
Reference	MST Minutes 09/11/2012

Principle 026: MAPPED FOLLOWING IHTSDO GUIDANCE

Principle Number	026
Title	**MAPPED FOLLOWING IHTSDO GUIDANCE**
Date of Origination	5 March 2013
Date of Revision	
Principle	When mapping a SNOMED CT concept, if SNOMED CT represents a different meaning than ICD-10, the Mapping Specialist will assign a target code based on the information given within SNOMED CT along with map advice MAPPED FOLLOWING IHTSDO GUIDANCE.

Example	**312823001 |Villous adenoma of rectum (disorder)|**
	SNOMED Detail View ⊠
	▲ 312823001 : Villous adenoma of rectum (disorder)
	Defined
	▲ Supertypes
	▷ Rectal polyp (disorder)
	▲ Adenoma of rectum (disorder)
	▷ Adenoma of large intestine (disorder)
	▲ Benign neoplasm of rectum (disorder)
	▷ Neoplasm of rectum (disorder)
	▷ Benign neoplasm of large intestine (disorder)
	▷ Benign neoplasm of pelvis (disorder)
	▲ Descriptions
	fsn Villous adenoma of rectum (disorder)
	pt Villous adenoma of rectum
	Attribute Role Group 0
	▲ Attribute Role Group 1
	RO Associated morphology : Villous adenoma
	RO Finding site : Rectum structure
	▲ Attribute Role Group 2
	ICD-10 Index:
	Adenoma
	- villous — *see* Neoplasm, uncertain behavior M8261/1
	In this example, SNOMED CT defines villous adenoma as a benign neoplasm; ICD-10 classifies it as a neoplasm of uncertain behavior. Map to a benign neoplasm with advice MAPPED FOLLOWING IHTSDO GUIDANCE.
Reference	
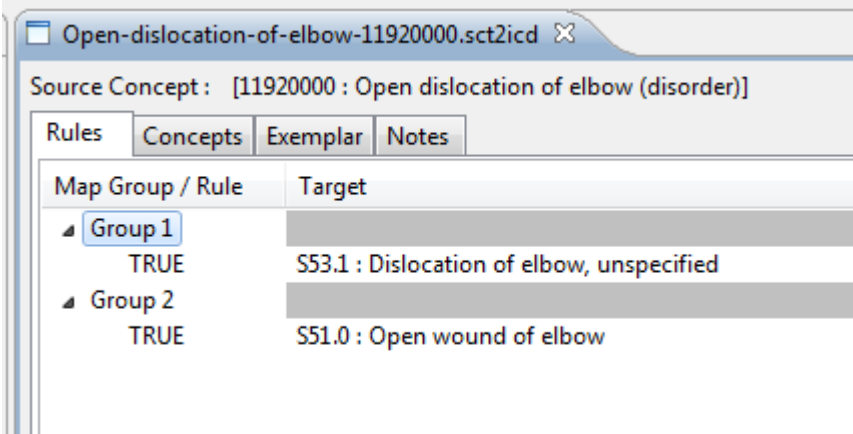
Principle 027: SEQUENCING OF POISONING CODES
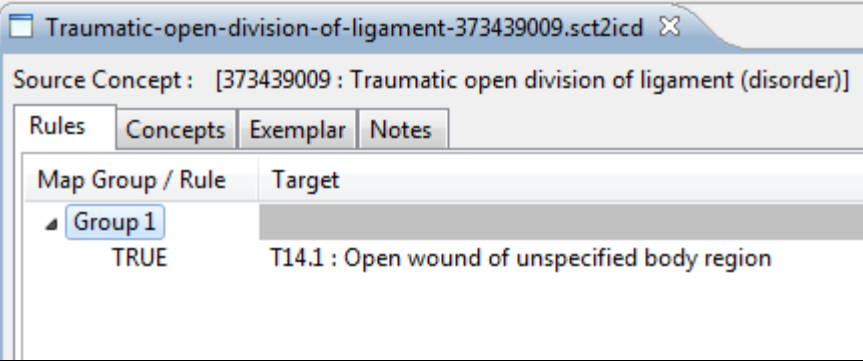
Principle Number	**027**
Title	**SEQUENCING OF POISONING CODES**
Date of Origination	11 July 2013
Date of Revision	
Principle	WHO does not give direct guidance on sequencing of poisoning codes, manifestations, and external causes. Each country has its own method. Because external cause codes are optional, their position will be last. So, the Mapping Service Team will map

	the poisoning code first, any manifestation [if known], and lastly the external cause code.
Example	**59686008 |Metabolic acidosis due to ethylene glycol (disorder)|** Concept: [426692001 : Ethylene glycol poisoning (disorder)] Concepts | Exemplar | Notes | Group / Rule	Target
roup 1	
IF A [59686008 : Metabolic acidosis due to ethylene glycol]	T52.8 : Toxic effect: Other organic solvents
roup 2	
IF A [59686008 : Metabolic acidosis due to ethylene glycol]	E87.2 : Acidosis
roup 3	
IF A [59686008 : Metabolic acidosis due to ethylene glycol]	X46 : Accidental poisoning by and exposure	
Reference	

Principle 028: OPEN WOUNDS ACCOMPANYING OTHER INJURIES

Principle Number	**028**
Title	**OPEN WOUNDS ACCOMPANYING OTHER INJURIES**
Date of Origination	2 August 2013
Date of Revision	
Principle	WHO handles open wounds that may accompany injuries in various ways. The index trail may lead to one code only, or the Mapping Specialist may need to use the index to find two separate codes to appropriately describe a concept.

Example #1	**11920000 |Open dislocation of elbow (disorder)|**
Open dislocations	Because WHO does not classify dislocations as open or closed (like fractures), the direct index to dislocation of a joint does not describe an open injury. Below is the index trail in ICD-10.
	Dislocation (articular) T14.3 **-** elbow S53.1
	Because the open injury is not described, it must be mapped separately as shown in the index trail below.
	Wound, open (animal bite) (cut) (laceration) (puncture wound) (shot wound) (with penetrating foreign body) T14.1 - elbow S51.0
	The final map for *Open dislocation of elbow* should have two codes, as shown below, along with advice of POSSIBLE REQUIREMENT FOR AN EXTERNAL CAUSE CODE applied to each code.
Example #2	**373439009 |Traumatic open division of ligament (disorder)|**
Open division of ligaments	WHO classifies division of ligament(s) with open wound as only open wound(s) as shown in the index trail below.
	Division - ligament — see also Sprain (current) (partial or complete) T14.3 - - with open wound — see Wound, open
	Because division of ligament with open wound is classified as only an open wound, there will be only one mapped code, as shown below, along with advice of POSSIBLE REQUIREMENT FOR AN EXTERNAL CAUSE CODE.

Reference	

Principle 029: REPORTED HEAD INJURIES WITH LOSS OF CONSCIOUSNESS

Principle Number	**029**
Title	**REPORTED HEAD INJURIES WITH LOSS OF CONSCIOUSNESS**
Date of Origination	6 August 2013
Date of Revision	
Principle	When mapping a SNOMED CT concept that describes an injury or condition that results in loss of consciousness, only the accident or diagnosis code is required. A target code for the loss of consciousness is not required as the only existing code in ICD-10 describes unconsciousness (coma).

Example	**18485009 |Intracranial hemorrhage following injury without open intracranial wound AND with loss of consciousness (disorder)|**
Reference	Mapping Service Team Meeting discrepancy review 6 August 2013

Principle 030: MULTIPLE FRACTURES

Principle Number	030
Title	**MULTIPLE FRACTURES**
Date of Origination	5 September 2013

Date of Revision	
Principle	When more than one site of fracture is mentioned within a three-character category in Chapter S, code to the specific "multiple fractures" code at fourth character level within that category (usually fourth character .7 in categories S00–S99). See example #1. For multiple injuries of the same fourth character subcategory code, map to the site-specific code. See example #2. When more than one body region is involved or for bilateral fractures of the same site, coding should be made to the relevant category of *Injuries involving multiple body regions* (T00–T06) as per explicit WHO Volume 2 instructions.
Example #1	**Fracture of frontal bone of skull and lower jaw (mandible)** Since both *frontal bone of skull* (S02.0) and *lower jaw* (S02.6) *fractures* are located at different 4th category levels within *S02: Fracture of skull and facial bones*, the correct map is *S02.7: Multiple fractures involving skull and facial bones*.
Example #2	**Multiple fractures of the neck of femur** Fracture (abduction) (avulsion) (comminuted) (compression) (dislocation) T14.2 - femur, femoral S72.9 - - multiple S72.7 - - neck S72.0 Since "multiple" and "neck" are indexed at the same level of indentation, and

	multiple fractures of the neck of femur can be classified into the same fourth character subcategory, map to the site-specific, *S72.0 Fracture of neck of femur.*
Reference	ICD-10 Online Training (version 2010)

Principle 031: MAPPING OF "AND/OR" CONCEPTS

Principle Number	**031**
Title	**MAPPING OF "AND/OR" CONCEPTS**
Date of Origination	5 September 2013
Date of Revision	24 April 2014
Principle	When SNOMED CT uses the phrase "and/or" within a concept's details (excluding supertypes), the target code for both possibilities will be researched. In the uncommon instance where the target codes for both possibilities are the same, the map will be completed with that specific code [example #1]. In the instance where the target codes for both possibilities conflict, the concept is not mappable [example #2]. Even if the two possible target codes are within the same ICD-10 category, the map is not mappable (i.e. the unspecified category code cannot be used) [example #2 continued].

| Example #1 | **63943002 \|Superficial injury of eyelid AND/OR periocular area (disorder)\|**

Injury — see also specified injury type T14.9
- superficial (for contusions, see first Contusion)
- - eyelid S00.2
- - periocular area S00.2

Because the target code for either eyelid or periocular area is the same, S00.2, the map will be complete with this code. |
|---|---|
| Example #2 | **209436000 \|Sprain of wrist and/or hand (disorder)\|**

Sprain, strain (joint) (ligament) T14.3
- hand S63.7
- wrist (cuneiform) (scaphoid) (semilunar) S63.5

Because the two possible target codes are different, this concept is unmappable. |
| Example #2 continued: | Because we must know which part of the arm was sprained, this concept cannot be classified. The concept could not be classified as *Sprain, Unspecified*, because the concept defines a site. |
| Reference | MST Meeting Minutes 20130730 |

Principle 032: MAPPING OF ANIMAL BITES

Principle Number	032
Title	**MAPPING OF ANIMAL BITES**
Date of Origination	10 December 2013
Date of Revision	8 July 2014
Principle	Bite injuries may or may not break the skin. SNOMED CT has many concepts described as bite wounds that are not defined as open wounds. WHO makes the assumption within ICD that all bites of animals and humans are open wounds. Because WHO makes this assumption, MAPPED FOLLOWING WHO GUIDANCE advice is necessary when mapping these concepts.

Example #1	**2837733005 |Dog bite of shin (disorder)|**

	Bite(s)
	       - animal — see also Wound, open T14.1
	
	       Wound, open (animal bite) (cut) (laceration) (puncture wound) (shot wound)
	       (with penetrating foreign body) T14.1
	       - shin S81.8
	
	The correct map is S81.8, Open wound of other parts of lower leg, with MAPPED FOLLOWING WHO GUIDANCE advice, and a second target code of W54, External cause code of Bitten or struck by dog, with POSSIBLE REQUIREMENT FOR PLACE OF OCCURRENCE advice.

Example #2	**283796005 |Animal bite of nose (disorder)|**

	Bite(s)
	       - animal — see also Wound, open T14.1
	
	       Wound, open (animal bite) (cut) (laceration) (puncture wound) (shot wound)
	       (with penetrating foreign body) T14.1
	       - nose, nasal (septum) (sinus) S01.2
	
	The correct map is S01.2, Open wound of nose, with MAPPED FOLLOWING WHO GUIDANCE advice, and a second target code of W64, Exposure to other and unspecified animate mechanical forces (when the type of animal is unknown). Add POSSIBLE REQUIREMENT FOR PLACE OF OCCURRENCE advice.

Reference	MST Meeting Minutes 20131204 Principle 04 MAPPED FOLLOWING WHO GUIDANCE

Principle 033: SYNDROMES AND RARE DISEASES
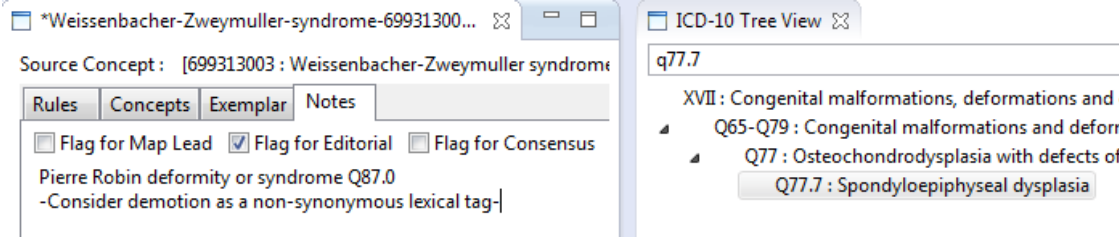
Principle Number	**033**
Title	**SYNDROMES AND RARE DISEASES**
Date of Origination	11 December 2013
Date of Revision	13 January 2014

Principle	Disorders with multiple, various manifestations grouped together as syndromes often do not have an entry within the ICD-10 alphabetical index. In some cases patients may exhibit some but not all of a particular syndrome's typical features, the map will not list every ICD-10 code but instead a generalized ICD-10 code must be found to comprise that syndrome. When a syndrome is neither indexable nor explicitly included within a code in the Tabular list, www.orpha.net should be used as the primary resource for classification. However, the Mapping Specialist must still use their expertise to evaluate whether the ICD-10 code supplied by Orphanet reliably and accurately represents the syndrome.

Example	**699669001 |Renpenning syndrome (disorder)|**
	
	SNOMED Detail View ⊠ ▭ [
	
	  699669001 : Renpenning syndrome (disorder)
	    Primitive
	  ▲ Supertypes
	    ▷ X-linked hereditary disease (disorder)
	    ▷ Mental retardation (disorder)
	  ▲ Descriptions
	    fsn Renpenning syndrome (disorder)
	    pt Renpenning syndrome
	    sy Porteous syndrome
	    sy Sutherland-Haan syndrome
	    sy X-linked intellectual deficit due to PQBP1 mutation
	    sy Hamel cerebropalatocardiac syndrome
	    sy Golabi-Ito-Hall syndrome
	
	Because Renpenning syndrome cannot be found in the ICD-10 Alphabetic Index, the code found at www.orphanet.com will be used as the map, in this case, Q87.5.
	
	:: Renpenning syndrome
	
	<table><tr><td>Orpha number</td><td>:</td><td>ORPHA3242</td><td>ICD-10</td><td>:</td><td>Q87.5</td></tr><tr><td>Synonym(s)</td><td>:</td><td>X-linked intellectual deficit due to PQBP1 mutations
	X-linked intellectual deficit, Renpenning type</td><td>OMIM
	UMLS
	MeSH</td><td>:
	:
	:</td><td>309500
	-
	-</td></tr><tr><td>Prevalence</td><td>:</td><td><1 / 1 000 000</td><td>MedDRA
	SNOMED CT</td><td>:
	:</td><td>-
	-</td></tr><tr><td>Inheritance</td><td>:</td><td>X-linked recessive</td><td></td><td></td><td></td></tr><tr><td>Age of onset</td><td>:</td><td>Neonatal/infancy</td><td></td><td></td><td></td></tr></table>
	▲ XVII : Congenital malformations, deformations and chromosomal abnormalities
	  ▲ Q80-Q89 : Other congenital malformations
	    ▲ Q87 : Other specified congenital malformation syndromes affecting multiple systems
	      Q87.5 : Other congenital malformation syndromes with other skeletal changes
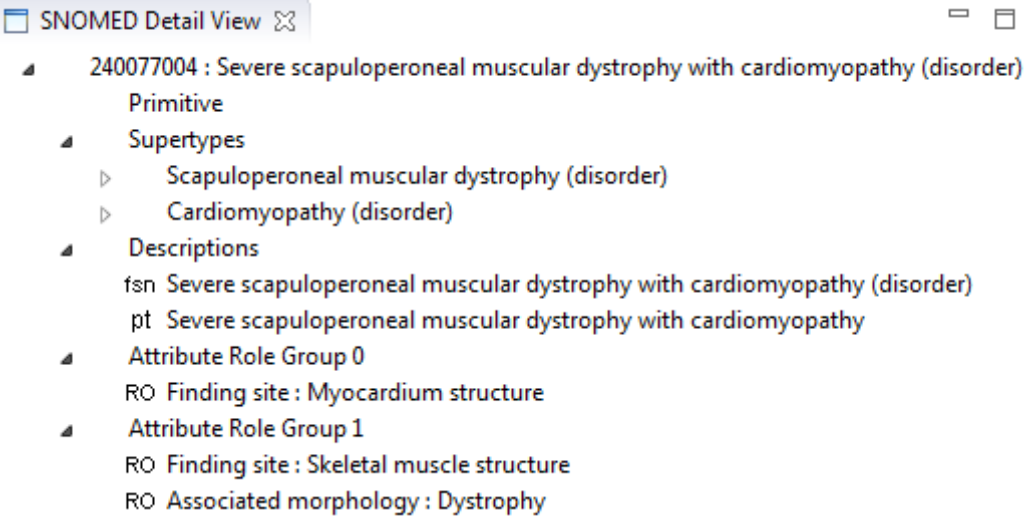
Principle 034: AMBIGUITY IN SYNONYMS

Principle Number	034
Title	**AMBIGUITY IN SYNONYMS**
Date of Origination	13 December 2013
Date of Revision	
Principle	One of the definitions of ambiguity is discordance between a SNOMED CT definition and its synonyms. Discordance is assessed relative to standard medical references. Although confusing to a Mapping Specialist, the SNOMED CT definition itself is not truly ambiguous and the map for this concept will be completed. However, the SNOMED CT term that is the source of the confusion will be flagged for Map Lead by the Mapping Specialist. After team discussion, the Map Lead will flag for Editorial Review with the expectation that the confusing term will be marked for demotion as a non-synonymous lexical tag.

Example	**699313003 |Weissenbacher-Zweymuller syndrome (disorder)|**
	
	In the SNOMED CT detail view below, Pierre Robin syndrome is a synonym.
	
	☐ SNOMED Detail View ⌗
	
	  ◢ 699313003 : Weissenbacher-Zweymuller syndrome (disorder)
	        Primitive
	   ◢ Supertypes
	      ▷ Congenital anomaly of skeletal bone (disorder)
	      ▷ Disorder of auditory system (disorder)
	      ▷ Congenital anomaly of face (disorder)
	   ◢ Descriptions
	      fsn Weissenbacher-Zweymuller syndrome (disorder)
	      pt Weissenbacher-Zweymuller syndrome
	      sy Heterozygous OSMED (otospondylomegaepiphyseal dysplasia)
	      sy Heterozygous otospondylomegaepiphyseal dysplasia
	      sy Pierre Robin syndrome with fetal chondrodysplasia
	
	WHO provides an index for Pierre Robin Syndrome:
	
	    Pierre Robin deformity or syndrome Q87.0
	
	Because medical research [MedScape, Orphanet] shows Pierre Robin to be discordant to Weissenbacher-Zweymuller Syndrome, the map will be completed

	with the code of Q77.7 and flagged for editorial.
Reference	MST Meeting Minutes 20131211 Technical Implementation Guide sections 10 and 11

Principle 035: DAGGER AND ASTERISK SEPARATE USAGE

Principle Number	**035**
Title	**DAGGER AND ASTERISK SEPARATE USAGE**
Date of Origination	15 April 2014
Date of Revision	2 July 2014
Principle	The dagger and asterisk classification is a dual coding system used to indicate the etiology and manifestation of a medical condition. The etiology and manifestation of conditions often arising together are delineated via explicit code pairs. However, codes that have either a dagger or an asterisk can be used outside of an explicit pair.
Example	**240077004 |Severe scapuloperoneal muscular dystrophy with cardiomyopathy (disorder)|**

I43.8 is an asterisk code that does not explicitly list G71.0 as a dagger code in its inclusion notes. However, that does not prevent its usage with the G71.0 code. Both codes are used here to most closely express the meaning of the SNOMED CT concept.

Care should be taken with the use of these codes as the paired Dagger and Asterisk coding representing an Etiology and Manifestation relationship must hold true in that the underlying disease has a manifestation in a particular organ or site described in the SNOMED CT concept.

Reference	

Principle 036: USE OF ICD-11 IN REGARDS TO ICD-10 MAP

Principle Number	**036**
Title	**USE OF ICD-11 IN REGARDS TO ICD-10 MAP**
Date of	5 May 2014

Origination	
Date of Revision	2 July 2014
Principle	The ICD-11 Beta Draft version is open and available to the public online at http://apps.who.int/classifications/icd11/browse/f/en. However, the caveats specify the draft is: ● not final, ● updated on a daily basis ● not approved by WHO ● not to be used for coding except for agreed field trials Because of this statement, the ICD-11 Beta Draft is agreed to be used by the MST as a reference like any other (literature reviews, Orphanet, etc.). It is another resource to offer direction for a particular concept. Because our map is to ICD-10 the ICD-10 Alphabetical Index will be followed along with the Tabular list and classification guidance in the first instance.
Example	**331111000119108 |Total retinal detachment (disorder)|** **Detachment** - retina (without retinal break) H33.2 - - with retinal break H33.0

Even though ICD-11 has *Total retinal detachment* with a reference to H33.0 in ICD-10 and parents of Retinal detachment with retinal break, the current map is from SNOMED CT to ICD-10. The SNOMED CT details do not delineate as with or without a retinal break. So amongst this and other literature, the map will follow the index to Retinal detachment NOS, H33.2.

Reference	MST Meeting 20140424

Principle 037: MULTIPLE INJURIES WITHIN THE SAME ICD-10 CATEGORY OR BLOCK

Principle Number	037
Title	MULTIPLE INJURIES WITHIN THE SAME ICD-10 CATEGORY OR BLOCK
Date of Origination	5 May 2014
Date of Revision	2 July 2014

Principle	Map to one of the following:
	- Use one code for the *same type of multiple injuries* to the *same body region* instead of coding separate four character codes in a category for the different component injuries (usually fourth character .7 in categories S00–S99) *Different types of multiple injuries* to the *same body region* (usually fourth character .7 in the last category of each block, i.e. S09, S19, S29, etc.) followed by the component injuries coded separately *Same type of multiple injuries* to *different body regions* (T00–T05) followed by the component injuries coded separately.
Example	**208014003 |Open spinal fracture with complete cervical cord lesion C1-4 (disorder)|** Open spinal fracture of other specified cervical vertebra = S12.21 Complete cervical cord lesion = S14.1 Since both of these codes fall within the S10-S19: Injuries to the neck chapter, the map will begin with a multiple injuries code and be followed by the individual neck injuries. ICD-10 Tree View s19.7 XIX : Injury, poisoning and certain other consequences of external causes S10-S19 : Injuries to the neck S19 : Other and unspecified injuries of neck S19.7 : Multiple injuries of neck ICD-10 Detail View **S19.7 : Multiple injuries of neck** **Inclusion** • Injuries classifiable to more than one of the categories S10-S18 Also notice the inclusion note for S19.7 that further confirms its use.

Final map is to S19.7, S12.21, and S14.1. Add external cause advice to each code.

Reference	MST Meeting 20140424

Principle 038: POSTOPERATIVE CONDITIONS

Principle Number	038
Title	**POSTOPERATIVE CONDITIONS**
Date of Origination	5 May 2014
Date of Revision	2 July 2014; 4 November 2014; 24 November 2014; 2 December 2014
Principle	There are three different ways WHO classifies postoperative conditions; see ICD-10 Volume 2 page 130: 1. Most body-system chapters contain categories usually at the end of the chapter for conditions that occur either as a consequence of specific procedures and techniques or as a result of the removal of an organ, e.g. postmastectomy lymphedema syndrome, post-irradiation hypothyroidism. 2. Some conditions that may arise in the postprocedural period are not considered unique entities and are coded in the usual way, along with the addition of Y83–Y84 to identify the relationship to a procedure. 3. Assign T80-T88 complication codes from Chapter XIX for certain complications related to surgical and other procedures, e.g. surgical wound infections, mechanical complications of implanted devices, etc.

	The difference in coding versus mapping methodology may explain some of the variations in WHO guidance and the IHTSDO Map. SNOMED CT is the source scheme, and so this must be taken into account when determining a map.

The ICD-10 index is a guide to the Mapping Specialist when assigning these codes as map targets.

When assigning T80-T88 complication codes: If an external cause code does not add additional information than what is given in the Chapter XIX code, then only add external cause advice. Conversely, if an external cause code adds additional information than what is given in the Chapter XIX code, then add the external cause code in addition to the Chapter XIX code. *

> *Advice from WHO ICD-10 Online Training, Review of Chapter XIX Part 2, concerning the use of medical devices associated with adverse incidents in diagnostic and therapeutic use (Y70-Y82), says in addition to the malfunctioning complication "T code", also apply the corresponding external cause code for breakdown or malfunctioning of medical device (during procedure)(after implantation)(ongoing use) included in the Y70-Y82 category. **The IHTSDO Mapping Service Team does not follow this guidance but leaves advice for the end user to complete the map as appropriate.** See fourth example below.

According to WHO, some conditions that may arise in the postprocedural period are not considered unique entities and are coded in the usual way, along with the addition of Y83–Y84 to identify the relationship to a procedure. See Volume 2, page 131, for WHO's illustration using "Postoperative psychosis after plastic surgery". **However, if the modeling does not identify a complication, then the IHTSDO map will not assume a relationship between the condition and the procedure.** The condition will be coded along with a *post-procedural status* or *history of procedure* code. See second example below. |
| **WHO Advice for Certain Postoperative Conditions** | This section describes the situations when a Mapping Specialist should use the map advice MAPPED FOLLOWING WHO GUIDANCE with concepts describing certain postoperative conditions. Modeling of a SNOMED CT concept is very important since no assumptions can be made. Also notable, findings are never modeled as complications by the IHTSDO Terminologists.

To provide a consistent map:
· If a postoperative condition is modeled as a complication, then map as a complication. The advice MAPPED FOLLOWING WHO GUIDANCE is not assigned.
· If a postoperative condition is not modeled as a complication, continue to map as WHO suggests but add advice MAPPED FOLLOWING WHO GUIDANCE. |

Complication default external cause code	For example, in the instances where the WHO ICD-10 target code states a complication, assign the target code and add advice MAPPED FOLLOWING WHO GUIDANCE. Postoperative can also be described as postprocedural, post-intervention, following surgery, post-surgical, after surgery, etc. When a complication is defined in the concept without further details, and the complication external cause is required, then the default WHO provides, Y84.9, must be used with MAPPED FOLLOWING WHO GUIDANCE advice to explain the assumption of a non-surgical procedure. Example: **707478007 Pulmonary trunk stenosis as complication of procedure (disorder)** **Stenosis** - pulmonary (artery) - - acquired I28.8 **Complication** (delayed) (of or following) (medical or surgical procedure) Y84.9 Map to I28.8 *Stenosis of pulmonary trunk*, and Y84.9 *Unspecified medical procedure as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure*, with MAPPED FOLLOWING WHO GUIDANCE advice.
First Example	**27059002 |Postsurgical hypothyroidism (disorder)|** **Hypothyroidism** (acquired) E03.9 - postsurgical E89.0 Map to code E89.0 only. Neither put advice nor an external cause code. No code notes accompany this code. SNOMED CT models this concept as a postoperative complication. This is example #22 from ICD-10 Volume 2.
Second Example	**309750008 |Extravasation following blood transfusion (disorder)|** **Extravasation** - blood R58 **History** - medical treatment Z92.9 - - specified type NEC Z92.8

	Map to R58, *Hemorrhage NOS/NEC*, and Z92.8, *Personal history of other medical treatment.* This concept is not modeled in SNOMED CT as a complication, so using Y84.8, *Blood transfusion procedure as the cause of abnormal reaction of the patient, or of later complication*, is incorrect.
Third Example	**58581001 |Postoperative shock (disorder)|** **Shock** R57.9 - postoperative T81.1 Map to T81.1 with advice for POSSIBLE REQUIREMENT FOR AN EXTERNAL CAUSE CODE. This code also includes instructions to use additional code to identify septic shock, so advice of POSSIBLE REQUIREMENT FOR ADDITIONAL CODE TO FULLY DESCRIBE DISEASE OR CONDITION should also be added. Finally, since ICD-10 assumes this to be a complication (T81.1), add advice of MAPPED FOLLOWING WHO GUIDANCE. SNOMED CT does not model this concept as a complication.

Fourth Example	**78717006 |Mechanical complication due to coronary bypass graft (disorder)|**
	
	Complications
	- coronary artery graft (bypass)
	- - mechanical T82.2
	
	Incident, adverse
	- device
	- - cardiovascular Y71.-
	
	The following is an excerpt from WHO Online Training:
	Gwynneth, who is 70, had a coronary bypass six months ago but one of the grafts has developed a leak.
	
	    The correct code is T82.2. T82 contains codes for Complications of cardiac and vascular prosthetic devices, implants and grafts. The fourth character records the specific type of complication, so Gwynneth's diagnosis is coded to T82.2 Mechanical complication of coronary artery bypass and valve grafts.
	
	What would be the external cause code for this?
	
	    The correct code is Y71.2. The fourth character, listed at the start of sub-block

	Y70−Y82, indicates the type of device or implant that malfunctioned. In this case Y83.2 is not correct as the external cause needs to show that it is a malfunction of the graft. Contrary to the suggestions of WHO, the Mapping Specialist will map to T82.2 with advice of POSSIBLE REQUIREMENT FOR AN EXTERNAL CAUSE CODE.

Advice Example #1	**703194006 |Postprocedural regurgitation of tricuspid valve (disorder)|**
	
	SNOMED Detail View ⊠
	
	703194006 : Postprocedural regurgitation of tricuspid valve (disorder)
	    Defined
	    ◢ Supertypes
	      ▷ Tricuspid valve regurgitation (disorder)
	    ◢ Descriptions
	      fsn Postprocedural regurgitation of tricuspid valve (disorder)
	      pt Postprocedural regurgitation of tricuspid valve
	      sy Postprocedural tricuspid regurgitation
	    ◢ Attributes
	      RO After : Procedure
	      RO Finding site : Tricuspid valve structure
	
	The modeling does not describe this concept as a complication, only that the regurgitation occurred after a procedure. The map is I36.1 *Regurgitation of tricuspid valve*, and Z98.8 *Other specified postsurgical states.*

Advice Example #2	**703177009 |Prosthetic mitral valve calcific stenosis (disorder)|**
	
	    Complications
	    - cardiac
	    - - device, implant or graft
	    - - - valve prosthesis
	    - - - - specified NEC T82.8
	
	The map is T82.8 *Stenosis due to cardiac and vascular prosthetic devices, implants and grafts* with advice of POSSIBLE REQUIREMENT FOR AN EXTERNAL CAUSE CODE. This concept describes stenosis of a prosthetic valve; the regular chapter codes cannot be used because the patient no longer has a regular valve. This concept is modeled as a complication.

Advice Example #3	**130091000119103 |Postprocedural fever (finding)|**
	
	    Fever R50.9
	    - postoperative (due to infection) T81.4
	
	The map is T81.4, *Infection following a procedure*, with advice of MAPPED FOLLOWING WHO GUIDANCE, POSSIBLE REQUIREMENT FOR CAUSATIVE AGENT, AND POSSIBLE REQUIREMENT FOR AN EXTERNAL CAUSE CODE. Findings are never modeled as complications by the IHTSDO Terminologists. The supertype for this concept is Fever. The index trail leads to the T81 category of *Complications of procedures, not elsewhere classified*. Because the WHO ICD-10 indexes to a complication, the WHO GUIDANCE advice is necessary.

Advice Example #4	**247379007 | Pain in amputated limb (finding)|**
	
	    Amputation
	    - stump (surgical)
	    - - abnormal, painful, or with complication (late) T87.6
	
	This concept is a finding, so it is not defined as a complication. The index is clear to a map of T87.6 *Other and unspecified complications of amputation stump.* Because this WHO assumes this is a complication, and the modeling of SNOMED CT does not define a complication, advice of MAPPED FOLLOWING WHO GUIDANCE would apply.

Advice Example #5	**78331000119108 |Excess foreskin after circumcision (finding)|**
	
	    Excess, excessive, excessively
	    - foreskin N47
	
	    Status (post)
	    - postoperative NEC Z98.8
	
	Because this is a finding, it is not modeled as a complication. The concept is indexable. Map to N47 and Z98.8. The code Y83.6 is not used to show that the excess foreskin was an abnormal reaction to the partial removal of skin from a genital organ, because the concept because it specifies the

	circumcision as the CAUSE of the condition.
Reference	ICD-10 Volume 2 page 130 - 131; MST Meeting 20140427 and 20140721; WHO Online Training, Review of Chapter XIX Part 2

Principle 039: USE OF CATEGORY O08 FOR PREGNANCY WITH ABORTIVE OUTCOME WITH AN ASSOCIATED COMPLICATION

Principle Number	**039**
Title	**USE OF CATEGORY O08 FOR PREGNANCY WITH ABORTIVE OUTCOME WITH AN ASSOCIATED COMPLICATION**
Date of Origination	9 January 2015
Date of Revision	9 March 2015
Principle	(1) When the concept maps to codes in categories O00 **Ectopic pregnancy, O01 Hydatidiform mole**, or **O02 Other abnormal products of conception** and if there is any associated complication <u>then two codes are used</u> – the first from either O00, O01 or O02 and the second from category O08. – **Complications following abortion and ectopic and molar pregnancy** for the complication. (2) When the concept maps to codes in categories O03 Spontaneous abortion, O04 Medical abortion, O05 Other abortion, and O06 Unspecified abortion there are 4th characters provided for these categories (O03–O06) to specify whether the abortion was incomplete or complete or unspecified and whether there were any complications. Category **O07 Failed attempted abortion** has its own 4th characters. (3) For **O03–O07** if the 4th character is a .3 or .8 then an additional code from **O08.3-O08.7** is required if the concept specifies the complication and adding the **O08.3-O08.7** gives fuller details of the complication. Do not add O08.3-O08.7 if the code does not give fuller details of the complication. NOTE: This principal does not apply if the complication is classified to O08.8. See example #3 Cardiac arrest due to miscarriage.

Example #1	**10752771000119100 Renal failure after ectopic pregnancy (disorder)** Maps to: O00.1 Tubal pregnancy O08.4 Renal failure following abortion and ectopic and molar pregnancy
Example #2	**15809008 Miscarriage with perforation of uterus (disorder)** Maps to: O03.8 Spontaneous abortion, complete or unspecified, with other and unspecified complications O08.6 Damage to pelvic organs and tissues following abortion and ectopic and molar pregnancy
Example #3	1076018100011909 |Cardiac arrest due to miscarriage (disorder)| Miscarriage O03.-

	Complication of abortion, current episode (O03-O06) - complete or unspecified	**Complication of abortion, current episode (O03-O06) - incomplete**	**Complication of pregnancy with abortive outcome, subsequent episode (O08)**
Note: The following fourth-character list is provided to be used with categories O03-O06 and O08. A distinction is made between an episode of care at which a disease or injury and resulting complications or manifestations are treated together - "current episode" - and an episode of care for complications or manifestations of diseases or injuries treated previously - "subsequent episode".			
Abortion			
- complicated (by)			
- - cardiac arrest	.8	.3	.8

Arrest, arrested
- cardiac I46.9

I46.9 Exclusion
  • Complicating: abortion or ectopic or molar pregnancy (O08.8 O00-O07)

	Map only to O03.8 *Spontaneous abortion, complete or unspecified, with other and unspecified complications* as the complication of cardiac arrest is classified to O08.8 so the principal does not apply.
Reference	WHO ICD-10 (2010) Online Training http://apps.who.int/classifications/apps/icd/icd10training/http://apps.who.int/classifications/apps/icd/icd10training/ MST Discrepancy meeting 20150304

Principle 040: LESIONS AS UNSPECIFIED IF NOT DIRECTLY INDEXABLE

Principle Number	40
Title	**LESIONS AS UNSPECIFIED IF NOT DIRECTLY INDEXABLE**
Date of Origination	9 March 2015
Date of Revision	

Principle	When searching for Lesion in the Alphabetical index of ICD-10, the index sometimes leads to .8 as illustrated in the following:
	
	      Lesion (nontraumatic)
	      - chorda tympani G51.8
	      - spleen D73.8
	
	      Lesion, *chorda tympani* to G51.8 *Other disorders of facial nerve* instead of G51.9 *Disorder of facial nerve unspecified*, or
	
	      Lesion, *spleen* to D73.8 *Other diseases of spleen* instead of D73.9 *Disease of spleen unspecified*.
	
	However, the majority of entries for Lesion in the alphabetic index is to .9 unspecified. To clear the confusion for those body sites that are not directly indexed under the term Lesion, it is agreed that those body sites will have a default of .9 unspecified. So unless the index directs the Mapping Specialist to map to .8, the Mapping Specialist will classify lesions as .9 unspecified.

Example	92461000119101|Lesion of endometrium (disorder)|
	There is no direct index for **Lesion**, endometrium. Because the endometrium is part of the uterus, the map is directed toward category N85. Because there is no direct index, this mapping principle directs the map to N85.9 *Noninflammatory disorder of uterus, unspecified*.
	There is an index trail for Lesion, uterus to N85.9, thus further confirming the correct map for this example. Endometrium IS A child of uterus.
Reference	MST Discrepancy Meeting 20150309

Principle 041: HISTORY OF A SYMPTOM

Principle Number	41
Title	**HISTORY OF A SYMPTOM**
Date of Origination	31 March 2015
Date of Revision	
Principle	For concepts that describe either a *family history of a symptom* or a *personal history of a symptom*, the concept is considered not classifiable.
	Symptom codes classified at chapter XVIII (range R00-R99) are not addressed in the Z80 – Z99 code range, whereas other chapter codes are referenced after the various history codes to denote their inclusion within that code (e.g. Z80.6 *Family history of leukemia* has a code note for Conditions classifiable to C91 – C95). As Chapter XVIII is titled Symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified, the map specialist must ensure that the symptom within the concept is classified to chapter XVIII and not to another chapter, a history of which may be classifiable.
	Also, a *family history of a symptom* does not warrant a Mapping Specialist to assume the condition was long-term (i.e. persistent or recurrent).
Example #1	**138081000119104 |Family history of hematuria (situation)|**
	Hematuria (essential) R31 - persistent — *see also* Hematuria, idiopathic N02.- - recurrent — *see also* Hematuria, idiopathic N02.-

	The hematuria cannot be assumed as persistent and/or recurrent. Since its base code is a symptom chapter code R31, and so the condition is not referenced anywhere as an inclusion within the Z80 – Z99 range, this concept is not classifiable.

Example #2	**674191000119109 | History of syncope (situation)|**
	
	        Syncope R55
	
	Since R55 is a code within the symptom chapter, this concept is not classifiable. Even though the parent concept is History of cardiovascular disease which has the following indexing:
	
	        History (personal) (of)
	        - disease or disorder (of) Z87.8
	        - - circulatory system Z86.7
	
	The code range at Z86.7 is for Conditions classifiable to I00 – I99, thus preventing History of syncope to be mapped here.

Reference	20150325 Discrepancy meeting

Principle 042: HISTORY OF SURGERY

Principle Number	**42**
Title	**HISTORY OF SURGERY**
Date of Origination	20150617
Date of Revision	
Principle with examples	SNOMED CT concepts within the situation hierarchy sometimes describe a postoperative status, a history of surgery, a postsurgical state, etc. These situations can be indexed by main terms such as *Status (post), History, Absence, Transplant*, and *Fusion*. Because the definitions are unclear, and there is no text definition available from WHO, the IHTSDO adopts a definition for these terms that guides the Mapping Specialist in developing a map involving these types of concepts: ***Postsurgical state*** will be defined as an altered surgical change from the patient's

normal state.

History of surgery will be defined as surgery to correct the patient back to a normal state.

Following these definitions, a SNOMED CT concept that refers to a past history of surgery in a patient will be assigned a map via the following steps.

1. If the concept can be indexed to a code in categories Z89-Z97 (except for **Z92.4 Personal history of major surgery, not elsewhere classified**) then it should be assigned a map to that code.

   Example: 428644008 | History of partial nephrectomy (situation)|

   This is a postsurgical state with an Index reference under Status (post) directing one to a code in the range of Z89-Z97.

   Status (post)
   - nephrectomy (bilateral) (unilateral) Z90.5

2. If the concept **cannot** be indexed to a code in Z89-Z97 (except for Z92.4) but it **does** refer to the patient being left post-surgery in a state which is different from normal (e.g. arthrodesis, anastomosis, etc.), then it should be assigned a map to a code in category **Z98 Other postsurgical states**.

   Example: 608851004 | History of vitrectomy (situation)|

   This is a postsurgical state without an Index reference under History, Status, or Absence to a code in the range of Z89-Z97.

   Status (post)
   - postoperative NEC Z98.8
   - postsurgical NEC Z98.8

3. If the concept cannot be described in either of the first two steps above, but does refer to the patient having experienced some form of surgery, then it should be assigned a map to the code **Z92.4 Personal history of major surgery, not elsewhere classified**.

   Example: 70301000119104 | History of repair of ectropion of eyelid (situation)|

   This is a history of surgery without an Index reference under History, Status, or Absence to a code in the range of Z89-Z97.

   History
   - surgery NEC (major) Z92.4

It is acknowledged that there may be some instances that may not befit the principle

	and these will be dealt with upon discrepancy.
Reference	MST meetings 20150311, 20150429, 20150617

Principle 043: THIS CODE MAY BE USED IN THE PRIMARY POSITION WHEN THE MANIFESTATION IS THE PRIMARY FOCUS OF CARE (Asterisk position advice)

Principle Number	**43**
Title	**THIS CODE MAY BE USED IN THE PRIMARY POSITION WHEN THE MANIFESTATION IS THE PRIMARY FOCUS OF CARE (Asterisk position advice)**
Date of Origination	20150701
Date of Revision	
Principle	Map advice THIS CODE MAY BE USED IN THE PRIMARY POSITION WHEN THE MANIFESTATION IS THE PRIMARY FOCUS OF CARE has been created for the 20150731 release. This advice is added to all asterisk codes. This advice applies regardless of whether the map is to a single code or part of a dagger and asterisk combination. Only apply this map advice when the dagger and asterisk codes are the primary and secondary targets in the map.
Examples	**126535008 |Diabetic motor polyneuropathy (disorder)|** **Diabetic** - neuropathy E14.4† G63.2* - - polyneuropathy E14.4† G63.2* Map to: E14.4 *Unspecified diabetes mellitus With neurological complications* G63.2 *Diabetic polyneuropathy* with the following advice: • THIS CODE MAY BE USED IN THE PRIMARY POSITION WHEN THE MANIFESTATION IS THE PRIMARY FOCUS OF CARE. **195474004 |Esophageal varices associated with another disorder (disorder)|** **Varix** - esophagus (ulcerated) I85.9 - - in (due to) - - - alcoholic liver disease K70.-† I98.2*

	- - - cirrhosis of liver K74.-† I98.2* - - - schistosomiasis B65.-† I98.2* - - - toxic liver disease K71.-† I98.2* Map to: I98.2 *Esophageal varices without bleeding in diseases classified elsewhere* with the following advice: • THIS CODE MAY BE USED IN THE PRIMARY POSITION WHEN THE MANIFESTATION IS THE PRIMARY FOCUS OF CARE, and • THIS MAP REQUIRES A DAGGER CODE AS WELL AS AN ASTERISK CODE.
Reference	ICD-10 Volume 2 page 21: "While the dagger and asterisk system provides alternative classifications for the presentation of statistics, it is a principle of the ICD that the dagger code is the primary code and must always be used. For coding, the asterisk code must never be used alone. However for morbidity coding, the dagger and asterisk sequence may be reversed when the manifestations of a disease is the primary focus of care." http://apps.who.int/classifications/icd10/browse/Content/statichtml/ICD10Volume2_en_2010.pdf MST meetings 20150408, 20150617

Principle 044: THIS MAP REQUIRES A DAGGER CODE AS WELL AS AN ASTERISK CODE

Principle Number	**44**
Title	**THIS MAP REQUIRES A DAGGER CODE AS WELL AS AN ASTERISK CODE**
Date of Origination	20150701
Date of Revision	
Principle	The International Classification of Diseases requires that medical record coding include both dagger (etiology) and asterisk (manifestation) codes together as a pair to describe certain conditions. In the alternative process of mapping from SNOMED CT, concepts may be void of the information required to capture both the dagger and asterisk code, but with sufficient amount of information to enable the mapping of a lone asterisk code. An advice has been created to address the issue of a single asterisk code map. THIS MAP REQUIRES A DAGGER CODE AS WELL AS AN ASTERISK CODE is applied to a map comprised of a single asterisk code. The advice tells the end user that another code is required without implying sequence order.
Examples	**202652006 |Inflammatory spondylopathy associated with another disorder (disorder)|** Map to: M49.89 *Spondylopathy in other diseases classified elsewhere Site unspecified,*

with the following advice:
- THIS CODE MAY BE USED IN THE PRIMARY POSITION WHEN THE MANIFESTATION IS THE PRIMARY FOCUS OF CARE, and
- THIS MAP REQUIRES A DAGGER CODE AS WELL AS AN ASTERISK CODE.

195474004 |Esophageal varices associated with another disorder (disorder)|

Varix
- esophagus (ulcerated) I85.9
- - in (due to)
- - - alcoholic liver disease K70.-† I98.2*
- - - cirrhosis of liver K74.-† I98.2*
- - - schistosomiasis B65.-† I98.2*
- - - toxic liver disease K71.-† I98.2*

Map to:
I98.2 *Esophageal varices without bleeding in diseases classified elsewhere* with the following advice:
- THIS CODE MAY BE USED IN THE PRIMARY POSITION WHEN THE MANIFESTATION IS THE PRIMARY FOCUS OF CARE, and
- THIS MAP REQUIRES A DAGGER CODE AS WELL AS AN ASTERISK CODE.

234347009 |Anemia of chronic disorder (disorder)|

Map to:
D63.8 *Anemia in other chronic diseases classified elsewhere* with the following advice:
- THIS CODE MAY BE USED IN THE PRIMARY POSITION WHEN THE MANIFESTATION IS THE PRIMARY FOCUS OF CARE, and
- THIS MAP REQUIRES A DAGGER CODE AS WELL AS AN ASTERISK CODE.

Reference	ICD-10 Volume 2 page 21: "While the dagger and asterisk system provides alternative classifications for the presentation of statistics, it is a principle of the ICD that the dagger code is the primary code and must always be used. For coding, the asterisk code must never be used alone. However for morbidity coding, the dagger and asterisk sequence may be reversed when the manifestations of a disease is the primary focus of care." http://apps.who.int/classifications/icd10/browse/Content/statichtml/ICD10Volume2_en_2010.pdf MST meetings 20150617, 20150701

Principle 045: SEQUENCING

Principle Number	45
Title	SEQUENCING (RETIRED)
Date of Origination	20150803
Date of Revision	20151209
Principle	Sequencing is important because it can indicate priority, drive statistics and affect reimbursement. Sometimes WHO directs sequencing order through various notes within ICD; other times, there is no direction. Therefore a principle is needed to ensure consistency in the absence of instruction.

When WHO indicates sequence via rules within the classification, follow those rules. These can be found through notes such as "Use additional code" or "Code also" or "Code first" etc.

Concerning dagger and asterisk combinations, always sequence the dagger code first with the asterisk code second. Only the end user knows the patient's primary focus of care. If the primary focus of care is the asterisk, then the end user is made aware of the ability to change the sequencing via the advice explained by principle 43 - THIS CODE MAY BE USED IN THE PRIMARY POSITION WHEN THE MANIFESTATION IS THE PRIMARY FOCUS OF CARE. Follow this sequence even in the situation of a single parent that describes only the asterisk code.

Etiology and manifestation is to be mapped as group 1 and group 2 respectively unless the classification directs otherwise. Map the cause first and the effect second even in the absence of a formal dagger and asterisk, such as with diabetic ulcers. These types of relationships may also be illustrated by phrases like "due to".

Lastly, if there are no sequencing rules that apply and the map includes two codes, map the first-listed condition as group 1 and the second-listed condition as group 2.

This guidance on sequencing applies regardless of whether the SNOMED CT concept is primitive or fully defined. |
| Examples | **191265009 |Anemia in neoplastic disease (disorder)|**

Map to:
D48.9 *Neoplastic disease*
D63.0 *Anemia in neoplastic disease,* with advice THIS CODE MAY BE USED IN THE PRIMARY POSITION WHEN THE MANIFESTATION IS THE PRIMARY FOCUS OF CARE

This concept maps to a dagger and asterisk combination. It has a single parent of anemia. Since the classification implies to follow a certain order, sequence in |

that order.

4855003 |Diabetic retinopathy (disorder)|

Map to:
E14.3 *Unspecified diabetes mellitus with ophthalmic complications*
H36.0 *Diabetic retinopathy,* with advice THIS CODE MAY BE USED IN THE PRIMARY POSITION WHEN THE MANIFESTATION IS THE PRIMARY FOCUS OF CARE

This concept maps to a dagger and asterisk combination. It has two parents. Since the classification implies a certain order with dagger and asterisk sequencing rules, sequence in that order.

10656231000119100 |Skin ulcer of toe due to diabetes mellitus type 1 (disorder)|

Map to:
E10.5 *Insulin-dependent diabetes mellitus With peripheral circulatory complications*, and
L97 *Ulcer of lower limb, not elsewhere classified*

This concept does not have dagger and asterisk formality, but it is an etiology and manifestation relationship. *Ulcer* is included in the fourth digit .5 inclusion terms list in the tabular where asterisk codes are usually listed. The etiology of diabetes is sequenced first followed by the manifestation of the ulcer second.

712487000 |End stage renal disease due to benign hypertension (disorder)|

N18 Chronic kidney disease

Use additional code, if desired, to identify underlying disease.

Use additional code, if desired, to identify presence of hypertension.

Map to:
N18.5 *Chronic kidney disease, stage 5*
I12.0 *Hypertensive renal disease with renal failure*

	Because the *Chronic kidney disease* category N18 has a *Use additional code* note, follow the ICD sequencing instructions. **197210001 |Anal and rectal polyp (disorder)|** Map to: K62.0 *Anal polyp* K62.1 *Rectal polyp* There are no sequencing code notes to follow for this concept. There are two equal parents: one for anal polyp and one for rectal polyp. So, map the anal polyp first since it is listed as the first condition, and no other sequencing rules apply.
Reference	See also principles: 11 *This code is not to be used in the primary position*, 13 *Possible requirement for additional code to fully describe disease or condition*, 27 *Sequencing of poisoning codes*, 43 *This code may be used in the primary position when the manifestation is the primary focus of care*. MST Discrepancy meetings 20150401, 20150609 20151202: There were too many exceptions to the original principle, as illustrated by examples posted in Confluence and marked in the tool, so the decision was made to retire the principle and for Map Leads to mark sequencing issues as non-errors.

Principle 046: PROCEDURE NOT CARRIED OUT

Principle Number	**46**
Title	**PROCEDURE NOT CARRIED OUT**
Date of Origination	14 October 2015
Date of Revision	13 November 2015
Principle	The SNOMED CT finding and situation hierarchies include procedures with context described as *declined, not wanted, not done, not carried out, consent not given, refused, canceled*, and *discontinued*. ICD-10 has a category Z53 for *Persons encountering health services for specific*

	procedures, not carried out. The ICF-10 code category Z28 *Immunization not carried out* describes reasons vaccines are not given. Use category Z53 for *declined, not wanted, not done, refused, not carried out*, and *canceled* procedures [other than vaccinations]. Drug therapy is considered a procedure, so map to Z53 in these circumstances. The exception is for administrative or non-clinical procedures that are *declined, not wanted, not done, refused, canceled*, and *discontinued*; consider these not classifiable. If a procedure [clinical or otherwise] is *discontinued*, it is not classifiable. Immunizations not carried out can be mapped to code category Z28. In the absence of a standard definition, the team has decided on the following: • A *declined/not wanted/not done/not carried out/refused/canceled* procedure is considered to have never started. • A procedure *not carried out* is considered to have never started. • A discontinued procedure is considered to have started but then stopped.
Examples	**713248005 |Procedure discontinued by doctor (situation)|** This concept is not classifiable. If a procedure is *discontinued*, it is not classifiable. **417114007 |Refused referral to minor ailments clinic (situation)|** This concept is not classifiable. Administrative or non-clinical procedures that are *declined, not wanted, not done, refused, canceled*, and *discontinued*; consider these not classifiable. **165139002 |Endoscopy not carried out (situation)|** Map to Z53.9 *Procedure not carried out, unspecified reason*. The concept and code are mappable. **401084003 |Angiotensin II receptor antagonist declined (situation)|** Map to Z53.2 *Procedure not carried out because of patient's decision for other and unspecified reasons*. Drug therapy is a clinical therapy and can be mapped when refused.
Reference	MST_Minutes_Meeting_20141014.docx MST_Minutes_Discrepancy Mtg_20141112.docx Joint Discrepancy Meeting_20150923

Principle Number	047
Title	Finding of range of joint movement (finding) and its children
Date of Origination	16 January 2016
Date of Revision	
Principle	In order to maintain consistency, the following guidance must be followed when assigning a target map to the concepts describing findings for the range of movement of various joints in the body. These concepts are listed as descendants of the SNOMED CT parent *298180004 Finding of range of joint movement (finding)*: • *Increased or decreased range of joint movement* is **Not Classifiable** • *Normal range of joint movement* is **Not Classifiable** • *Hypermobility of joint* maps to **R29.8 Other and unspecified symptoms and signs involving the nervous and musculoskeletal systems**, unless there is a specific index trail in the ICD-10 Alphabetical Index directing the mapper to use another code • *No movement of joint* maps to **R29.8 Other and unspecified symptoms and signs involving the nervous and musculoskeletal systems.**
Examples	**(a.) Examples of concepts that are Not Classifiable** • 304308007 Increased range of finger movement (finding) • 304326005 Decreased range of ankle movement (finding) • 304319005 Normal range of knee movement (finding) **(b.) Mapping hypermobility of joint concepts** • 298202003 Interphalangeal joint of toe hypermobility (finding) maps to R29.8 Other and unspecified symptoms and signs involving the nervous and musculoskeletal systems. • 2809009 Hypermobility of the coccyx (disorder) **ICD-10 index:** Hypermobility, hypermobility - coccyx M53.2 Maps to M53.28 Spinal instabilities, Sacral and sacrococcygeal region **(c.) No movement of joint** • 304302008 No elbow movement (finding) maps to R29.8

Reference	Joint IHTSDO/UKTC team meeting 6 January 2016

7 Principles Agreed at Consensus Management 2012

Acantholytic epidermal nevus

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
5	400067002	Acantholytic epidermal nevus (disorder)	GT	D22.9	Seems to be the best fit as this is a nevus- noun should be the search term rather than the adjective		

Acute or Chronic gastric or duodenal ulcer with hemorrhage and or perforation

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
10	12847006	Acute duodenal ulcer with haemorrhage (disorder)	GT		Second group needed for obstruction? Yes / second group code Obstruction, obstructed – duodenum K31.5 – stomach NEC K31.8		
11	61347001	Acute duodenal ulcer with perforation (disorder)	GT		Second group needed for obstruction? Yes / second group code Obstruction, obstructed – duodenum K31.5 – stomach NEC K31.8		
12	19850005	Acute gastric ulcer with perforation (disorder)	GT		Second group needed for obstruction? Yes / second group code Obstruction, obstructed – duodenum K31.5 – stomach NEC K31.8		

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
13	89469000	Chronic duodenal ulcer with hemorrhage (disorder)	GT		Second group needed for obstruction? Yes second group code Obstruction, obstructed – duodenum K31.5 – stomach NEC K31.8		
14	49916007	Chronic duodenal ulcer with perforation (disorder)	GT		Second group needed for obstruction? Yes / second group code Obstruction, obstructed – duodenum K31.5 – stomach NEC K31.8		
15	9232000	Chronic peptic ulcer with haemorrhage (disorder)	GT		Second group needed for obstruction? Yes / second group code Obstruction, obstructed – duodenum K31.5 – stomach NEC K31.8		

Acute periodontitis

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
6	235010005	Acute necrotizing ulcerative periodontitis (disorder)	GT	K05.2	Best fit for now according to index trail and tabular display		Recommend to ICD-10 if acute necrotizing periodontitis be excluded at K05.2 and be treated same as K05.1 and be coded A69.1 +

Allergy or sensitivity to food or drink

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
19	91930004	Allergy to eggs (disorder)	HB	Z91.0	Propensity to allergy is better		
20	91935009	Allergy to peanuts (disorder)	HB	Z91.0	Propensity to allergy is better		
21	91937001	Allergy to seafood (disorder)	HB	Z91.0	Propensity to allergy is better		
22	15911003	Cow's milk protein sensitivity (disorder)	HB	Z91.0	Propensity to allergy is better		
23	25868003	Soy protein sensitivity (disorder)	HB	Z91.0	Propensity to allergy is better		

Bacterial conjunctivitis

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
25	128350005	Bacterial conjunctivitis (disorder)	HB	B99 - H13.1	following index conjunctivitis, infectious		

Cellular atypia due to antineoplastic agent

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
30	446468007	Cellular atypia due to antineoplastic agent (disorder)	HB	R89.6 Y43.3			

Drug induced purpura

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
7	109957002	Drug induced purpura (disorder)	GT	D69.2	Coded to nonthrombocytopenic (which includes Purpura NOS)		Should add one exclusion rule for 19307009 drug-induced immune thrombocytopenia mapping to D69.5. Feedback to SNOMED CT to make 19307009 a descendant of 109957002

Dry eye

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
3	1249004	Dry eye (finding)	GT	H04.1	more a disorder if used in problem list		Recommend to WHO ICD-10 to add based on dry mouth having a separate entry

Ectopic ACTH secretion

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
18	237829004	Ectopic ACTH secretion (finding)	HB	E34.2	better fit index entry	E24.3 is more specific and from a problem list point of view it could be a better fit	Request SNOMED CT editorial review to consider merging the syndrome with the secretion concept request revision of ICD index to send ACTH secretion to E24.3 instead

							of E34.2

Environmental allergy

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
1	426232007	Environmental allergy (disorder)	GT	Z91.0	Excluded Z58.0 that does not state allergy-not acute allergic reaction so T78.4 is not a good choice		

Epistaxis

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
24	232357009	Post-surgical epistaxis (disorder)	HB	R04.0	post-surgery + Y83.9 as group 2		

Lithium monitoring

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
2	275917000	Lithium monitoring (finding)	GT	NC	Z01.7 and Z04.8 were not seen has a good fit because it's a procedure as an encounter reason		

Macular pigment deposit

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
9	247146001	Macular pigment deposit (disorder)	GT	H35.8	not enough evidence that this is a degeneration of macula and SCT has not enough content in its relationships to know the etiology of this condition		

Mucosa associated lymphoid tissue MALT lymphoma of stomach

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
17	444597005	Extranodal marginal lymphoma of mucosa associated lymphoid tissue of stomach (disorder) Mucosa associated lymphoid tissue MALT lymphoma of stomach (disorder)	HB	C88.7	New version of ICD - 10 classifies this at C88.7		

Periodic limb movement disorder

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
16	418763003	Periodic limb movement disorder (disorder)	HB	majority G25.8	Index trail in ICD-10 brings to G25	One panelist thinks that this is ambiguous and should be not classifiable	add/clarify ICD-10 index, as ICD-10-CM index leads to sleep disorder which is different

Peripheral nerve entrapment syndrome

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
26	45781009	Peripheral nerve entrapment syndrome (disorder)	HB	G58.9	following neuropathy entrapment in index	T14.1	Revise SCT concept to re-examine hierarchical relationship to peripheral nerve injury, which is modelled differently from similar concepts such as carpal tunnel syndrome

Pigment dispersion syndrome

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
8	392133001	Pigment dispersion syndrome (disorder)	GT	H21.2	Supported from literature as degeneration, .2 being more specific is preferred		Request Index entry in ICD-10

Scalp tenderness

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
29	75851004	Scalp tenderness (finding)	HB	R20.8			

Stress

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
4	73595000	Stress (finding)	GT	R45.7	Symptom related to health issue would better be described with this code rather than a Z code		Recommend to WHO ICD-10 a revision of the index for the lead term stress that does not include R45.7 in its modifiers

Subcutaneous nodule

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
28	51696001	Lipogranulomatosis subcutanea of Rothmann and Makai (disorder}	HB	M35.6	Two published articles said that this condition is a variant of Weber-Christian disease http://rheumatology.oxfordjournals.org/content/44/12/1588.1.full and http://www.ncbi.nlm.nih.gov/pubmed/16681577		Revision of SCT to add hierarchical relationship to Weber-Christian disease, and to ICD to index ligogranulomatosis subcutaneous to the index

Superficial injury of wrist

CASE							
CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
27	91060006	Nonvenomous insect bite of wrist with infection (disorder)	HB	second group L08.9	B99 is too vague.		

8 Principles Agreed at Consensus Management 2013

Cellular atypia due to antineoplastic agent

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION
30	446468007	Cellular atypia due to antineoplastic agent (disorder)	KG	R89.6 Y43.3	One suggestion was T78.8 Other adverse effects, not elsewhere classified. With an external cause code Y43.3 Other antineoplastic drugs Another suggestion was R89.6 Abnormal findings in specimens from other organs, systems and tissues and external cause code Y43.3 Other antineoplastic drugs Consensus reached - R89.6 Abnormal findings in specimens from other organs, systems and tissues Y43.3 Other antineoplastic drugs		

Pediatric autoimmune neuropsychiatric disorder associated with streptococcal infection (PANDAS)

CASE	CONCEPTID	CONCEPT NAME	MAP LEAD	CONSENSUS DECISION	RATIONALE	DISSENTING OPINION	SPECIAL ACTION

31	446682003	Pediatric autoimmune neuropsychiatric disorder associated with streptococcal infection (disorder)	KG	D89.8	Research indicated D89.8 was a better fit than alternative index trail to M35.9 Systemic involvement of connective tissue, unspecified - PANDAS is not a connective tissue disease Can occur sometime after infection so additional B95.5 code not appropriate		

9 Appendices

Appendix 1 – see Principle 20

[Email from World Health Organization:]

Dear Kathy

Thank you for bringing this to our attention. Our understanding is that these characters to add specificity are optional and their use is to provide extra information as to the 'site' of the particular condition.

The wording at the beginning of Chapter XIII states that they are to be used "With appropriate categories". M70 is not an appropriate category as it is site specific at the 4th character code. M88.0 can also be said to not be appropriate as it too is site specific at the 4th character code.

In other words in these 2 examples that have been raised, the site information is already captured in the 4 character code thus making the addition of the optional character unnecessary.

Looking at the books, it seems that the note "[See site code at the beginning of this chapter]" has been routinely added to many of the categories in Chapter XIII, without further review as to the appropriateness of the application of these site codes. Our recommendation is therefore that the coders use common sense in some of these situations and be aware that addition of site codes does not provide additional information and so will be unnecessary.

We will pass on this issue to the ICD-10 Update and Revision Committee for their consideration.

You have also asked how these characters are collected. In most countries that we are aware of, they are added as a fifth character to the codes in the relevant sections of the chapter. Some countries use a separate data item for site but this is not common.

We welcome queries like this and hope that you, and others, are finding the training tool useful.

Sue Walker
On behalf of the ICD-10 Training Tool Support Group

Appendix 2- See Principle 22

WHO and country specific guidance on the use of 'P' codes from ICD-10 CHAPTER XVI CERTAIN CONDITIONS ORIGINATING IN THE PERINATAL PERIOD (P00-P96) WHO guidelines (ICD-10 2010)[1]

- **Perinatal period**
  The definition recommended by the World Health Organization in ICD-10 Volume 2 is the period from 22 weeks' gestation to 7 completed days after birth.
- **Neonatal period**
  In ICD-10 this is Birth to 28 completed days.
- Chapter XVI is concerned with diseases and orders that originate in the perinatal period, even though death or morbidity occurs later.
- This is one of the special chapters in ICD-10 that takes precedence over system chapters
- The codes within this chapter are the ones that will be used on neonatal records. Most of the conditions that are classified to this chapter are transient and will disappear after a short period of time. However, some conditions will persist throughout a person's life. It may be necessary, on occasions, to assign a code from this chapter to an adult.
- Some perinatal conditions are not coded to this chapter: Q00-Q99, E00-E90, S00-T98, C00-D48, A33 Tetanus neonatorum
- The first block P00–P04 is for Fetus and newborn affected by maternal factors and by complications of pregnancy, labor and delivery. P00-P04: Many of the conditions in this block are actually the mother's conditions. They are here in this chapter to show that a problem the mother may have had prior to pregnancy or a problem the mother incurred during the pregnancy, labor or delivery had an effect on the baby in some way. Only use these codes if there is evidence that the baby was affected by the mentioned complication. When you code cases where the baby has been affected by the condition affecting the mother you will need two codes – one for the effect on the baby and the other code – from block P00–P04 to show the cause.
- Note: In single condition coding only assign a code from P00–P04
- The code you would assign for a death certificate for a stillbirth with no specified cause is P95.

Canadian guidelines

- This guidance is from the Canadian Coding Standards for Version 2012 ICD-10-CA intended for use with the 2012 version of the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Canada (ICD-10-CA)

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[1] *http://apps.who.int/classifications/apps/icd/icd10training/*
[1]

- When values for "asphyxia" Gynecologists of Canada (SOGC)[2], are documented on the chart, assign a code from:
  P20. – Fetal Asphyxia or P21.9 **Newborn asphyxia, unspecified**

Example 1.

Male infant delivered vaginally with an absent heartbeat. Apgar score at one minute and at five minutes was 0. The fetal heart tracing had been reassuring throughout the entire course of labor. Extensive resuscitation ensued for 40 minutes and the baby was eventually revived. Blood gases performed on cord blood revealed a pH of 5.0 and a base excess of –21. Throughout the day, the neurological status of the child was not reassuring and he began having seizures. The kidney function was also non-reassuring. A Foley catheter was placed and there was only 1 cc of urine output over the entire course of the day. Final diagnosis is documented as hypoxic ischemic encephalopathy (HIE), anuria.

P20.1 Intrapartum fetal asphyxia first noted during labour and delivery
P91.6 Hypoxic ischaemic encephalopathy of newborn
P96.0 Congenital renal failure
Z38.000 Singleton, delivered vaginally, product of both spontaneous (NOS) ovulation and conception
Rationale: Fetal asphyxia is substantiated by cord blood pH values and absent heart beat was first noted at delivery; therefore, P20.1 is assigned. Any associated neonatal signs are coded separately. HIE is manifested by convulsions; therefore, the convulsions are not coded separately.

Example 2.

Baby born vaginally at 30 weeks gestation. Arterial cord blood pH at birth is 7.5. The infant fails to sustain respirations and the physician documents asphyxia. Arterial blood gases taken 30 minutes after birth show a pH of 6.9.

P21.9 Newborn asphyxia, unspecified
P07.3 Other preterm infants
Z38.000 Singleton, delivered vaginally, product of both spontaneous (NOS) ovulation and conception

Rationale: Routine cord blood pH was normal proving an asphyxia episode did not occur during labor and delivery; however, the infant failed to sustain good respirations prompting

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[2]

[2]*Note: The Society of Obstetricians and Gynecologists of Canada (SOGC) values are:*

[2]*Fetal asphyxia (P20.–):*

[2]*• Umbilical cord arterial pH ≤7.0; and/or*

[2]*• Umbilical cord arterial base deficit ≥12 mmol/L.*

[2]*Newborn asphyxia (P21.9):*

[2]*• Capillary or arterial (not umbilical cord) pH ≤7.0; and/or*

[2]*• Capillary or arterial (not umbilical cord) base deficit ≥12 mmol/L*

[2]

another blood gas analysis. The arterial blood gases met the values of newborn asphyxia as established by the SOGC; therefore, P21.9 is assigned. P21.9 will be rarely assigned.

UK guidelines
National Clinical Coding Standards ICD-10 4th Edition (2010), NHS Classifications Service.
- The perinatal period extends from before birth through the 27th day, 23rd hour and 59th minute of life i.e. the period before the start of the 28th day.
- As long as a condition originates in this period, a code from P05-P96 can be used.
- Most conditions classified in this chapter are transitory (passing) disorders that do not have lasting effects. However, certain conditions that originate in the perinatal period and persist beyond this time are also classified to Chapter XVI.
- Conditions arising in the perinatal period must, as far as possible, be coded to Chapter XVI even when morbidity or death occurs later. This takes precedence over chapters containing codes for diseases by their anatomical site. This excludes:
- Q00-Q39, E00-E99, S00-T98, C00-D48, A33, R00-R99
- However if the code for the disease by anatomical site provides additional information which is not contained in the code from Chapter XVI, then it is acceptable to use an additional code to express this information and provide further detail.
- P00-P04
    - Identifies the underlying maternal cause for the external cause for the baby's condition
    - Can only be used if there is a morbid condition in the baby
    - Must always be secondary to the morbid condition itself
    - Must never appear as the primary diagnosis except when the baby is stillborn. In these instances these codes will appear as the solo diagnosis on the baby's record.

US guidelines
ICD-9-CM Official Guidelines for Coding and Reporting[3]
Effective October 1, 2011
Chapter 15: Newborn (Perinatal) Guidelines (760-779)
For coding and reporting purposes the perinatal period is defined as before birth through the 28th day following birth.
General Perinatal Rules
- Chapter 15 code may be used throughout the life of the patient if the condition is still present.
- Generally, codes from Chapter 15 should be sequenced as the principal/first-listed diagnosis on the newborn record, with the exception of the appropriate V30 code for the birth episode, followed by codes from any other chapter that provide additional detail. The "use additional code" note at the beginning of the chapter supports this guideline. If the index does not provide a specific code for a perinatal condition, assign code 779.89, Other specified conditions originating in the perinatal period, followed by the code from another chapter that specifies the condition. Codes for signs and symptoms may be assigned when a definitive diagnosis has not been established.

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[3] *http://www.cdc.gov/nchs/icd/icd9cm_addenda_guidelines.htm*

- If a newborn has a condition that may be either due to the birth process or community acquired and the documentation does not indicate which it is, the default is due to the birth process and the code from Chapter 15 should be used. If the condition is community-acquired, a code from Chapter 15 should not be assigned.
- Codes from categories 760-763, Maternal causes of perinatal morbidity and mortality, are assigned only when the maternal condition has actually affected the fetus or newborn. The fact that the mother has an associated medical condition or experiences some complication of pregnancy, labor or delivery does not justify the routine assignment of codes from these categories to the newborn record.

Australian guidelines[4]
- In July 2010, the National Case mix and Classification Centre (NCCC) University of Wollongong acquired responsibility for managing and updating ICD-10-AM, Australian Classification of Health Interventions (ACHI) and in Australia under contract from the DoHA. Australian Coding Standards (ACS) are not available online.

Ireland use ICD-10-AM and has their own standards[5]

For example: **Neonatal viral illness**
The following codes are assigned for documentation of 'neonatal viral illness':
  P39.8 *Other specified infections specified to the perinatal period*
  B34.9 *Viral infection, unspecified*

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[4] *http://nccc.uow.edu.au/index.html*
4

[5] *http://www.esri.ie/health_information/hipe/clinical_coding/irish_coding_standards/*
5

Appendix 3- See Principle 24

JAG approved age ranges:

"Neonatal/Newborn": birth to and including 28 days of life
- o   Age greater than 0 hours and less than or equal to 28 days

"Perinatal": 22 weeks of gestation to and including 7 days of life
- o   Age greater than 0 hours and less than or equal to 7 days

"Childhood": birth until 19th birthday
- o   Age less than 19 years

"Adult": 19th birthday until death
- o   Age 19 and over

"Infant (infancy)": birth until 2nd birthday
- o   Age less than 2

"Juvenile": 2nd birthday until 19th birthday
- o   Age equal to 2 years and less than 19 years

"Adolescence": 12th birthday until 19th birthday
- o   Age equal to 12 years and less than 19 years

"Pre-senile": birth until 65th birthday
- o   Age greater than 0 hours and less than 65

"Senile": 65th birthday and greater
- o   Age 65 and over

Appendix 4 – see Principle 38

Excerpt from Canadian Coding Standards submitted by Ginette Therriault:

Here is an excerpt from our Canadian Coding Standards. The way we instruct coding of post-intervention condition meets the scenario that you are proposing for mapping this concept to ICD-10. It may not apply to all concepts though depending of what is found in the index for specific conditions as well as cases included in our two intervention groups. Some exceptions to the generic rule should probably be considered.

Post-Intervention Condition Code Assignment

The code assignment for a post-intervention condition consists of:

A primary code which, when following the alphabetical index, classifies the condition or symptom to one of the following:
- a code from T80–T88 *Complications of surgical and medical care, not elsewhere classified* (T-code)
- a post-procedural disorder code found in most body system chapters (PP-code)
- the regular code (the usual code in the classification)
  An additional code to provide specificity, mandatory when available.
  An external cause code to identify the nature of the post-intervention condition, mandatory.

Classify a condition or symptom as a post-intervention condition when:
- **a condition or symptom that is not attributable to another cause arises during an uninterrupted continuous episode of care within 30 days following an intervention (including transfers from one facility to another); or**
- **a cause/effect relationship is documented, regardless of timeline.**

Assign a minimum of two codes:
either a T-code, PP-code or regular code upon following the alphabetical index; and
one external cause code from either:
– (Y60–Y69) *Misadventures to patients during surgical and medical care*, or
– (Y70–Y82) *Medical devices associated with adverse incidents in diagnostic and therapeutic use*, or
– (Y83–Y84) *Surgical and other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure*.

Searching the Alphabetical Index for the Primary Code for a Post-Intervention Condition

The steps for locating the primary code for a post-intervention condition have been revised to help clarify the intent of each step and to better address all of the variables that are encountered.

Step 1: Locate lead term.
a. Misadventure—Condition or circumstance meets the criteria for a misadventure.

Search the lead term "Misadventure" and the applicable subterm and assign the code per the classification. See also the coding standard entitled *Misadventures During Surgical and Medical Care*. **END**

b. Select Interventions Group A—Condition is related to (associated with) one of the following interventions:

Artificial fertilization (N98)

Immunization (includes vaccination) (T88.0, T88.1)

Infusion, transfusion, therapeutic injection (includes dialysis, extracorporeal circulation and perfusion) (T80)

Search the lead term "Complication, complications (from) (of)" and a subterm denoting the specific intervention and assign the code per the classification. **END**

c. All others:

Search the specific condition or symptom. **GO TO STEP 2**

Step 2: Look for a subterm denoting "post-procedural".

a. No post-procedural subterm:

When there is no post-procedural subterm. **GO TO STEP 3**

b. Single subterm:

When a single subterm denoting post-procedural exists, assign the code per the classification. **END**

c. Two or more subterms:

When there are two or more "post-procedural" subterms

one leading to a code specific to one of the select interventions listed in Group B at

Step 3a; and

one leading to a code from category T81 *Complications of procedures, not elsewhere classified*

assign the code specific to the select intervention in Group B when the condition is attributed (due to) or clearly related to/associated with the outcome of the intervention**,** otherwise, assign the code from category T81 *Complications of procedures, not elsewhere classified*. **END**

Step 3: Assign Regular Code or a Code for Select Intervention.

a. Select Interventions Group B—Condition is attributed (due to) or clearly related to/associated with the outcome of one of the following select interventions**:**

Amputation (T87.3–, T87.4–, T87.5–, T87.6–)

– the condition is directly related to the amputation stump itself

Device, implant or graft (T82-T85)

– the condition is directly related to the in situ device, implant or graft itself

Lumbar puncture (G97.1)

– the condition is directly related to the effects of cerebrospinal fluid loss

Mastoidectomy (H95.0, H95.1)

– the condition is directly related to the postmastoidectomy cavity

Reattached extremity/body part (T87.0–, T87.1–, T87.2–)

– the condition is directly related to the reattached limb itself

Stoma (J95.0–, K91.4–, K91.6–, N99.5–)

– the condition is directly related to the established (healed) stoma

Search the lead term "Complication, complications (from) (of)" and a specific subterm for the select intervention and assign the code per the classification. **END**

b. All others:

Assign the regular code per the classification. **END**