# **SNOMED CT January 2020 International Edition -SNOMED International Release notes**

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## 1. Introduction

#### 1.1. Background

SNOMED CT terminology provides a common language that enables a consistent way of indexing, storing, retrieving, and aggregating clinical data across specialties and sites of care.

SNOMED International maintains the SNOMED CT technical design, the content architecture, the SNOMED CT content (includes the concepts table, the descriptions table, the relationships table, a history table, and ICD mappings), and related technical documentation.

## 1.2. Purpose

This document provides a summarized description of the content changes included in the January 2020 release of SNOMED Clinical Terms<sup>®</sup> (SC T) International Release.

It also includes technical notes detailing the known issues which have been identified and agreed to be released. These are content or technical issues where the root cause is understood, and the fix has been discussed and agreed, but has yet to be implemented.

The SNOMED International Release Notes are available alongside the January 2020 International Edition release.

#### 1.3. Scope

This document is written for the purpose described above and is not intended to provide details of the technical specifications for SNOMED CT or encompass every change made during the release.

#### 1.4. Audience

The audience includes National Release Centers, WHO-FIC release centers, vendors of electronic health records, terminology developers and managers who wish to have an understanding of changes that have been incorporated into the January 2020 International Edition release.

## 2. Content Development Activity

## 2.1. Summary

Continuous quality improvement and enhancement of existing content is an ongoing process by SNOMED International for every release. The January 2020 International Release has seen a continuation of the work driven by contributions from: Kaiser Permanente Convergent Medical Terminology (CMT), Global Medical Device Nomenclature Agency (GMDNA), Orphanet and other domain specific collaborations as well as requests received via the Content Request System (CRS).

Additionally quality improvement activities are in progress for new and enhanced content through project driven initiatives which are also summarized below. Also included as work items for every release are various updates to SNOMED CT derived maps such as ICD-10 and ICD-O and details are also included in these release notes. Information about editorial decisions may be found in the SNOMED CT Editorial Guide, mapping guidance for ICD-10 can be found at this link https://confluence.ihtsdotools.org/display/DOCICD10

#### New content added for 2019 novel coronavirus

A set of new concepts have been added for the January 2020 release:

- 840539006|Disease caused by 2019 novel coronavirus (disorder)|
- 840534001|2019 novel coronavirus vaccination (procedure)|
- 840544004|Suspected disease caused by 2019 novel coronavirus (situation)|
- 840536004|Antigen of 2019 novel coronavirus (substance)|
- 840535000|Antibody to 2019 novel coronavirus (substance)|
- 840533007|2019 novel coronavirus (organism)|
- 840546002|Exposure to 2019 novel coronavirus (event)|

These concepts all have an additional synonym of 'Wuhan coronavirus' to aid searchability.

#### Update: WAS\_A

Inactivation reason of LIMITED/WAS\_A is not allowed for any new content inactivations after the July 2018 release. The WAS\_A association refset has not been updated thereafter.

At the Editorial Advisory Group meeting in April 2019, agreement was reached to discontinue the maintenance of WAS\_A relationships when inactivating concepts that have a historical association to an inactive concept. When changes are made to a historical relationship for a concept that was previously inactivated using WAS\_A, effort will be made to assign a new historical relationship that facilitates traceability of the concept (e.g. DUPLICATE or AMBIGUOUS) as opposed to NON-CONFORMANCE TO EDITORIAL POLICY.

Existing WAS\_A relationships will be inactivated in a future release once a plan for batch reassignment of historical relationships has been developed. Until then, SNOMED International will not continue to use or maintain WAS\_A relationships.

# 2.2. Content Quality Improvement

SCT Statistics	
Domain	#New concepts

SNOMED CT Concept (SNOMED RT+CTV3)	3044
Body structure (body structure)	467
Clinical finding (finding)	1446
Event (event)	16
Environment or geographical location (environment / location)	1
Observable entity (observable entity)	136
Organism (organism)	185
Pharmaceutical / biologic product (product)	276
Physical object (physical object)	39
Procedure (procedure)	105
Qualifier value (qualifier value)86	88
Record artifact (record artifact)	11
Social context (social concept)	1
Situation with explicit context (situation)	31
Specimen (specimen)	3
Substance (substance)	223
Staging and scales (staging scale)	4
SNOMED CT Model Component (metadata)	12

SCT Improvement Statistics		
Existing Concepts	#Changes	
Inactivated concepts	1329	
Reactivated concepts	16	
Relationship changes	33985	
Primitive changed to sufficiently defined	1518	
Sufficiently defined changed to primitive	64	
Description changes	5462	
Inactivated descriptions (synonyms only)	1608	
New descriptions (synonyms only) for existing concepts	2695	
Reactivated descriptions (synonyms only)	47	

# 2.2.1. Body structure

New body structure concepts: 467

The new anatomy concept model implements the enhanced Description Logic features, e.g. reflexive and transitive properties, additional axioms for consistent logical modeling. The inferred IS\_A relationships from the OWL anatomy ontology have been reviewed and the changes have been implemented in production. Potential impact to other hierarchies for example clinical finding, procedure, observable entity, situation with explicit context, were also reviewed as part of the project. Revision of hierarchical relationships for all body systems has been completed. The changes in the 2020 January release include:

Changes to hierarchical relationships in body structures:

Nervous system: 1,303
Respiratory system: 402
Hematological system: 157
Immune system: 132
Lymphoreticular system: 144
Integumentary system: 513
Special senses organ system: 413

• Endocrine system: 88

Review of potential impact and most issues addressed in other hierarchies for example disorder, procedure, by body system:

Nervous system: 5,714
Respiratory system: 2,264
Hematological system: 844
Immune system: 772
Lymphoreticular system: 696
Integumentary system: 5,970
Special senses organ system: 5,080
Endocrine system: 1,123

#### 2.2.1.1. Quality Improvement in the Body Structure Hierarchy

#### Nervous system:

Hierarchical relationships and concepts that are descendants of 25087005 [Structure of nervous system (body structure)] have been reviewed and improved. The appraisal included rationalization of the peripheral nerves and cranial nerves to ensure that a branch of a specified nerve is not subordinate to the nerve from which it originates, but has an IS\_A relationship to the regional nerve structure that covers the entire anatomical boundaries of every branch of that nerve. Any relationships that did not fulfil this rule have been corrected.

It has been identified that the use of the term 'cerebrum' is ambiguous within clinical terminology historically: sometimes referring to the brain as a whole, and on other occasions referring to the more limited meaning of the cerebral hemispheres. In order to clarify the semantics of 'cerebrum', the concept 83678007 [Structure of cerebrum (body structure)] location and definition has been elucidated using the following statement: 'The cerebrum is the regional structure of the brain, which is the adult equivalent of the forebrain or prosencephalon. It is constituted by the structural derivatives of the telencephalon and diencephalon including the cerebral hemispheres, epithalamus, thalamus, hypothalamus, lateral ventricles and third ventricle. This definition is harmonious with the Federation of Association of Anatomist Second Edition (2019) Part V Terminologia Anatomica'.

#### Revision of concepts for abdomen and pelvis regions:

The relationships of the walls, cavities and contents of the abdomen and pelvis have undergone intensive review and re-work for more information please see https://docs.google.com/document/d/1gxkcEYf89eJl0RJG8-S2w4zOdpF8R2sn5SHx7InWxZI/edit?usp=sharing

The notion of 'abdomen' in clinical practice can vary between different specialties and circumstances; for example, 'abdomen' in natural language can be used to refer to, but not limited to, the following concepts:

- Abdominopelvic cavity
- O Abdominopelvic cavity excluding the true pelvic cavity (Abdomen proper cavity)
- Abdominopelvic cavity and/or content (Intra-abdominopelvic structure)
- Intra-abdominopelvic structure excluding intra-pelvic structure of true pelvis
- o Intra-abdominopelvic structure and/or anterior abdominal wall
- Intra-abdominopelvic structure and/or anterior abdominal wall, excluding intra-pelvic structure of true pelvis (Abdomen proper)
- Abdominal segment of trunk
- Abdominal cross-sectional segment of trunk

SNOMED International considers the most commonly used clinical variant referred to as 'abdomen' to be 818983003 |Structure of abdominopelvic cavity and/or content of abdominopelvic cavity and/or anterior abdominal wall (body structure)|, which in SNOMED CT is now the only concept using 'Abdomen' as a synonym. New concepts have been added to satisfy the requirements of imaging including:

- $^{\circ}~$  Structure of abdominal cross-sectional segment of trunk (body structure)
- O Structure of pelvic cross-sectional segment of trunk (body structure)
- Structure of abdominopelvic cross-sectional segment of trunk (body structure)
- Structure of thoracic cross-sectional segment of trunk (body structure)

The different anatomical entities in this area have all been allocated a definition in order to bring clarity to this domain. A considerable number of definitions of disorders and procedures have been reviewed and rationalized according to these clearer principles. Further work on modeling updates for disorders and procedures, such as CT and MRI related to the abdomen has been planned for the next release.

#### **Review of Respiratory System**

The hierarchical relationships for subtypes of 20139000 Structure of respiratory system (body structure) have been reviewed and improved, specifically:

- 55214000 Bronchiole structure (body structure) was removed as a child of 955009 Bronchial structure (body structure) as this
  was causing inappropriate classification of many concepts, the parents are now 72674008 Bronchopulmonary segment
  structure (body structure) and 119198002 Tracheobronchial tree part (body structure).
- Several 'pharyngeal space concepts' were deemed to be ambiguous and also there was some redundancy. These were
  modeled as pharyngeal structures however in reality they are not internal pharyngeal structures, although they are sometimes
  loosely described as such. Concepts using this terminology have been inactivated and relevant concepts are now organized
  under a new concept 789210002 Structure of peripharyngeal space (body structure).

#### 2.2.1.2. New areas of content for Anatomy

New concepts added for Hair follicle of specific body regions. New concepts added for spinal nerve proper at different levels.

#### 2.2.1.3. Reference set updates

Updated and validated release file for the lateralizable body structure reference set. Updated and validated release files for the SEP refsets.

## 2.2.2. Clinical finding

New concepts added for clinical finding hierarchy: 1446

#### Update for Known Content Issue July 2019 Release

Approximately 149 text definitions were missing either a US or GB spelling variation - this has been rectified in the January 2020 release with implementation of new validation to identify any future issues.

A small set of disorder concepts were identified with descendants that had a semantic tag of clinical finding along with a further small set of concepts that had a semantic tag of disorder but were not descendants of 64572001|Disease (disorder)|. These issues have been rectified in the January 2020 release with implementation of new validation to identify any future issues.

## 2.2.2.1. New content additions include

- Wound = 40 concepts
- Abrasion = 8 concepts
- Abscess = 13 concepts
- Benign neoplasm = 38 concepts
- Burn = 44 concepts
- Chemical burn = 36 concepts
- Closed fracture = 15 concepts
- Edema = 14 concepts
- Epidermal burn = 20 concepts
- Female genital mutilation type = 7 concepts
- Fracture = 10 concepts
- Full thickness burn = 14 concepts
- Hematoma = 13 concepts
- Infected wound = 23 concepts
- Injury = 33 concepts
- Laceration = 21 concepts
- Open fracture = 35 concepts
- Open wound = 108 concepts
- Partial thickness burn = 33
- Repetitive motion disorder = 19 concepts
- Subungual hematoma = 16 concepts
- Superficial foreign body = 14 concepts

#### 2.2.2.2. Quality Initiative

The Quality Initiative (QI) project is the implementation of the Quality Strategy. After a successful pilot project for the July 2018 release the next stage has been implemented for subsequent releases including January 2020.

Quality improvement tasks were deployed to improve internal structural consistency and ensure compliance with editorial policy related to the stated modeling of content. Additionally, correction or addition of defining relationships was carried out to accurately reflect current clinical knowledge and ensure the semantic reliability of descriptions associated with a concept.

Total count of changes for the QI project:

- Stated: A total of 9608 concepts had changes made to the Stated relationships in the model.
- Inferred: A total of 16726 concepts affected by inferred changes.

#### 2.2.2.3. Quality Improvement in the Clinical Finding Hierarchy

#### Inactivation of 33359002 |Degeneration (morphologic abnormality)|

In order to distinguish the degenerative process from the structure, 33359002 |Degeneration (morphologic abnormality)| has been inactivated as a DUPLICATE, SAME AS 107669003 |Degenerative abnormality (morphologic abnormality)|. All morphologies in the disorder hierarchy have been replaced accordingly.

#### Inactivation of 23583003 |Inflammation (morphologic abnormality)

In order to distinguish inflammatory process from structure, 23583003 |Inflammation (morphologic abnormality)| has been Inactivated as DUPLICATE, SAME AS 409774005 |Inflammatory morphology (morphologic abnormality)|. All concepts in the Inflammatory disorder hierarchy have been remodeled accordingly.

#### Revision of 129156001|Traumatic dislocation of joint (disorder)|

Traumatic dislocation concepts are being remodeled according to the new representation using DUE TO "Traumatic event". This work has been partially completed for the Jan 2020 release, resulting in the remaining subhierarchies moving from under "Traumatic dislocation of joint" to "Dislocation of joint". These remaining subhierarchies will be remodeled for the July 2020 release.

#### Revision of 298180004 |Finding of range of joint movement (finding)

The concepts under the subhierarchy 298180004 |Finding of range of joint movement (finding)|have been remodeled to represent the finding site of <<785818007 |Structure of joint region (body structure)| instead of <<39352004 |Joint structure (body structure)|. Range of movement of a joint region can be impacted by both bone and soft tissues, therefore the use of 39352004 |Joint structure (body structure)| was too restrictive and caused issues in other areas of the terminology.

#### **Revision of Fracture Concepts**

Added new morphologic abnormality concepts in the following areas:

- Neer classification of fracture of proximal humerus part fracture types (8 new concepts).
- Seinsheimer classification of subtrochanteric femur fracture types I through V (5 new concepts).

This work led to changing relationships and definition status to "fully defined" for 6 fracture disorder concepts. Four qualifier value "Neer" fracture concepts were inactivated and referred to the new morphologic abnormality concepts.

QI Project focus for January 2020 release (work has begun or been completed)		
128482007 Acute inflammatory disease (disorder)	5294002 Developmental disorder (disorder)	
85828009 Autoimmune disease (disorder)	298180004 Finding of range of joint movement (finding)	
87628006 Bacterial infectious disease (disorder)	128139000 Inflammatory disorder (disorder)	
20376005 Benign neoplastic disease (disorder)	400006008 Hamartoma (disorder)	
131148009 Bleeding (finding)	400178008 Lymphangioma (disorder)	
276654001 Congenital malformation (disorder)	399981008 Neoplasm and/or hamartoma (disorder)	
417893002 Deformity (finding)	118616009 Neoplastic disease of uncertain behavior (disorder)	
362975008 Degenerative disorder (disorder)	233776003 Tracheobronchial disorder (disorder)	

#### 2.2.2.4. Content Tracker Project Updates

Work continues on the following Content Project:

 IHTSDO- 393 Diabetes Complications: Diabetic complications have now been updated and modeled according to the updated Editorial Guidance and use of "DUE TO". Diabetic complications can be found in the hierarchy 74627003 |Complication due to diabetes mellitus (disorder)| which is a subtype of 116223007 |Complication (disorder)|. These concepts no longer reside as a subtype of 73211009 |Diabetes mellitus (disorder)|. The ECL query which will give a list of all diabetic complications modeled with a "DUE TO" is as follows:

\*: 42752001 |Due to (attribute)| = <<73211009 |Diabetes mellitus (disorder)|

Work will begin with domain experts during the release cycle for July 2020 to update the clinical content in this area.

#### 2.2.2.5. Other Areas of Quality Improvement in the Clinical Finding Hierarchy

#### Remodel concepts - 254666005 [Keratosis (disorder)] 782957005 [Ichthyosis (disorder)] 396228006 [Hyperkeratosis (disorder)]

These concepts were all defined with "hyperkeratosis" and "skin". There was duplication across the concepts with synonyms and modeling. After consultation with clinical experts the following was agreed in summary:

Hyperkeratosis and Keratosis are the same.

Ichthyosis has an underlying morphology of "keratosis" but with a different distribution pattern.

#### Changes for 'On Examination' and 'Complaining of' concepts

The 'on examination' and 'complaining of' content is being returned to the UK as part of planned work for the July 2020 release. Where no suitable replacement concept exists new content without the 'examination' or 'complaining of' component of the meaning is being created.

For example: Eye does not move left (finding) has been added in preparation for the inactivation of 'On examination - eye does not move left (finding)'.

For the January 2020 release 180 new concepts were added.

#### Inactivation - "Finding of form of X (finding)"

Inactivation of 30 concepts using the format "Finding of form of ..."

#### Remodel 70153002 |Hemorrhoids (disorder)|

Improvements made in the modeling of subtypes of 70153002 |Hemorrhoids (disorder)|.

#### **Changes to Case Sensitivity**

Over 31,000 descriptions have been reviewed and approximately 5,402 descriptions across 2806 concepts have had their case significance settings corrected as appropriate. The changes are across all SNOMED CT hierarchies but in particular disorder concepts (1774), procedure (978) and qualifier values (736). The Editorial Guidance on case significance related to descriptions containing numeric values and special characters has been updated for the January 2020 release.

Notice: Planned changes for the 'Co-occurrent and due to' pattern:

During the implementation of the new Description Logic features, a conflict was uncovered between the modeling of 'Co-occurrent and due to' and General Concept Inclusions (GCIs). This has resulted in the need to reconsider the modeling of "Co-occurrent and due to' and update the Editorial Guide for this area.

There are a number of concepts that are based upon the existing guidance for 'Co-occurrent and due to'. The plan is to update the Editorial Guide and all concepts that are currently modeled as 'Co-occurrent and due to' over future releases.

## 2.2.3. Convergent Medical Terminologies (CMT)

New CMT concepts: 775

The majority of these newly authored concepts are in scope for mapping to ICD-10 and from the following domains:

- CMT Injuries 106
- CMT Mixed Domains 584
- CMT Musculoskeletal 22

- CMT Ophthalmology 20
- CMT Orthopedics 43

## 2.2.4. Procedure

New concepts for procedure hierarchy: 105

#### 2.2.4.1. Areas of Quality Improvement for the Procedure Hierarchy

#### Implantation and Insertion procedures

Work commenced on content tracker IHTSDO-175. There are ongoing structural changes for the Procedure concepts related to the content tracker: It was agreed that not all Insertion and Implantation procedures are surgical. As a result, further work in the hierarchy under 129284003 |Surgical action (qualifier value)| has been undertaken for the January 2020 release and this includes:

- $^{\circ}~$  Reactivation of 129338005 |Surgical implantation action (qualifier value)|
- Addition of a new concept 788288006 |Surgical reimplantation action (qualifier value)|
- o Remodel of 'Reimplantation procedures' replaced METHOD = 129337000 |Reimplantation action (qualifier value)| with new 788288006 |Surgical reimplantation - action (qualifier value)|

Work on this project will continue for future releases after January 2020.

#### **Evaluation Procedures**

- o Inactivated four duplicate concepts.
- o Inactivated six ambiguous concepts.
- o Inactivated one erroneous concept.
- Created one new concept to replace an ambiguous concept.
- $^{\circ}\,\,$  Inactivated descriptions of sixteen concepts.
- Removed incorrect parent for two concepts.
- Added descriptions to fourteen concepts.

## Changes to Existing Concepts in the Procedure Hierarchy

The following concepts and/or areas in the procedure hierarchy were remodeled:

- Osteopathic manipulation techniques
- Emergency coronary artery bypass graft
   Tylectomy
- Neck excision
- o Procedure on brain ventricular shunt
- Change of diaper
- Removal of leeches
- o Dermabrasion of facial scars
- O Triennial health exam
- Detoxification therapy (regime/therapy)
- Hormone therapy replacement
   Transplantation of dura
- Cervical biopsy
- Excisional biopsy of cerebral meninges, percutaneous, needle
- o Suture of plexus
- Oral fluorescence imaging
- Administration of heavy metal antagonist

## 2.2.5. Collaboration/Harmonization Projects

#### 2.2.5.1. Orphanet

Working in collaboration with Orphanet (http://www.orpha.net/consor/cgi-bin/index.php), creation of new concepts for the original set of prioritized rare diseases has been completed.

The mapping and validation process has begun for an alpha release after the January 2020 International release of SNOMED CT.

All of the concepts added for the Orphanet project have been mapped to ICD-10.

#### 2.2.5.2. Global Medical Device Nomenclature Agency (GMDNA)

21 new device concepts were added to the physical object hierarchy for GMDN.

4 device concepts were inactivated.

For the GMDN mapping equivalence tables:

- o 21 New concepts have been added to inscope and mapped.
- 161 concepts have been modified and removed from the mapping tool as out of scope.
- 92 concepts ave been deemed obsolete and removed from the mapping tool and flagged as out of scope.
- 334 concepts were identified as no longer in scope for the map and have been removed. These concepts were identified as
  part of the Quality Improvement of the mapping equivalence tables and the monthly submissions from GMDN.

#### 2.2.5.3. ICD-O-3.2 Update

For the January 2020 release, and based on the recent release of ICD-O-3.2 the priority has being adding new content for updated morphologies; this refers to additions to the 400177003 [Neoplasm and/or hamartoma (morphologic abnormality)] sub-hierarchy. Approximately 63 changes in the sub-hierarchy are related to the ICD-O-3.2 update analysis, including the direct addition of 25 new morphology concepts that were identified from analysis of the ICD-O-3.2 preview as missing from SNOMED CT.

Impacted concepts in the disorder hierarchy have been revised to align with any new ICD-O-3.2 morphology changes, and in many cases the addition of a relationship to the new morphology concept has resulted in the neoplasm disorder concept being defined fully. This work has included the creation of a small number of new neoplasm disorder concepts to match the new morphologies.

Descriptions with [obs] have been inactivated as outdated because they are artefacts of descriptions from the ICD-O-3 print version for their history tracking. There are two concepts and one synonym with [obs] that remain and will be addressed for the July 2020 release.

#### 2.2.6. Event

New concepts added: 16

## 2.2.7. Qualifier Value

New concepts added: 88

## 2.2.8. Situation with explicit context

New concepts added: 31

This includes 17 new concepts for 'History of X'.

# 2.2.9. Observable Entity

New concepts added: 136

This includes 8 new concepts for insulin dose observables.

## **2.2.10.** Organism

New organism concepts added: 185

- $^{\circ}\,$  Added new descriptions for 10 organism concepts.
- Inactivated 9 organism concepts as duplicates.
- Changed descriptions of two organism concepts.

## 2.2.11. Pharmaceutical / biologic product

#### Drug model project

For further details on the planned changes in this area, please refer to the Drug Model Working Group Directory section.

Please note, you may have to register for Confluence user account in order to access this project and the relevant links below

## 2.2.11.1. Changes for Pharmaceutical / biologic product

#### Inactivation of 'Over the Counter'

Concepts referring to "over the counter" status have been inactivated.

Concepts referring to regulatory status or characterization (e.g. over the counter) are out of scope for the International Release since the meaning may vary by jurisdiction and is not consistent internationally.

#### **Vaccine Poisoning**

Concepts referring to vaccine poisoning have been inactivated from the January 2020 International release and moved to the NHS extension per their request.

The notion of vaccine poisoning has persisted in ICD 10 under T50 but it is not included in ICD-11; the poisoning aspect seemingly referred to the adjuvants and carriers that are included in the vaccines as opposed to the biological component itself.

Changes for the January 2020 International Release		
Concrete domain	Information about upcoming changes to implement concrete domains in lieu of concepts representing numeric values will be available on the Modeling Advisory Group Confluence space located at:  https://confluence.ihtsdotools.org/display/mag/Modeling+Advisory+Group	
Medicinal product hierarchy	<ul> <li>Editorial guidelines updated and distributed.</li> <li>Supporting documentation (e.g. Drug position statement, project roadmap) reviewed and updated as needed.</li> <li>Content updates including:         <ul> <li>Updated concepts for products with pegylated substances as active ingredient or basis of strength substance accordingly based on revised editorial guidelines for modeling pegylated substances.</li> <li>Updated concepts with non-conforming "million unit" expression of strength to be consistent with existing editorial guidelines.</li> <li>Reviewed modeling and made updates as needed for concepts using insulin groupers as an active ingredient or basis of strength substance.</li> </ul> </li> <li>Implemented QA reports to identify content that does not comply with editorial guidelines; issues resolved or documented as exceptions in the editorial guidelines.         <ul> <li>Updates included normalization of strength expression, FSN and PT terming to correspond with Substance hierarchy, evaluation of relationship between BoSS and PAI, Medicinal product and Medicinal product form concepts modeled with substances that have modifications.</li> </ul> </li> <li>Modeled product role for anti-infective agents and antiparkinson agents.</li> </ul>	
National extension model	<ul> <li>Updated supporting documentation (e.g. SNOMED CT Medicinal Product Model Specification) as needed.</li> <li>Corrected MRCM rules for 774158006  Has product name (attribute)  and 774159003  Has supplier (attribute) ; they should be allowed for descendants of 373873005  Pharmaceutical / biologic product (product) .</li> </ul>	
Pharmaceutical dose form	<ul> <li>Editorial guidelines updated and distributed.</li> <li>Content updates including:         <ul> <li>Added/modified Pharmaceutical dose form concepts as needed or per CRS request</li> <li>Added text definitions for supporting hierarchies.</li> </ul> </li> </ul>	

# 2.2.12. Veterinary Extension

7 concepts were moved to the Veterinary Extension.

#### 2.2.13. Social Context

New concepts added: 1

## 2.2.14. Specimen

New concepts added: 3

## 2.2.15. Substances

New concepts added: 223

As a Vaccine project work item and based on requests submitted mutually by Argentina and Canada, 151 new antigen concepts have been added to the Substance hierarchy to be used in the modeling of vaccine products in a future release.

#### Release plans, Substance hierarchy

For further details on the planned changes in this area, please refer to the Substances project.

Please note, you may have to register for Confluence user account in order to access this project and the relevant links above.

## 2.3. Internal Quality Improvement

# 2.3.1. Replacement of the Stated Relationship files with the new OWL Axiom refset files

A set of documentation has been developed to support the Logic Profile Enhancements.

- SNOMED DL Profile Enhancements
- o SNOMED CT Logic Profile Specification
- SNOMED CT OWL Guide (OWL Refsets specification)
- Snomed OWL Toolkit https://github.com/IHTSDO/snomed-owl-toolkit
- Classifying SNOMED CT using the Snomed OWL Toolkit https://youtu.be/-91egY9mJqA
- Creating an OWL file containing SNOMED CT https://youtu.be/sfFbMMioA\_4

For any questions, please contact SNOMED International at support@snomed.org with "OWL Axiom refset files implementation question" in the subject line.

## 2.3.2. Machine Readable Concept Model (MRCM)Changes

3 updates to the existing MRCM in the MRCM refsets and authoring platform were made for the January 2020 release:

- Expand the range of 246501002 |Technique (attribute)| to include << 273249006 |Assessment scales (assessment scale)|.
- Expand the domain of 774159003 |Has supplier| to 373873005 |Pharmaceutical / biologic product (product)|
- Expand the domain of 774158006 [Has product name] to 373873005 [Pharmaceutical / biologic product (product)].

Further details can be found here MRCM changes in the January 2020 release (Please note, you may have to register for Confluence user account in order to access this project and the relevant links above).

## 2.3.3. Improvement for the Representation of Role Groups

It is important to clearly indicate if an attribute is grouped or not because role grouping has impact to semantics and classification results. The majority of the Modeling Advisory Group members recommended explicit representation for role groups. Two key changes have been implemented since the July 2019 release.

Firstly, role groups are explicitly stated and represented by the concept 609096000|Role group (attribute)| as an object property in the OWL axiom refset.

Secondly, for the inferred relationship file, role group 0 is only applied to attributes that are not logically grouped. The attribute is not a value of 609096000|Role group (attribute)| in an OWL axiom. Or the attribute has grouped = 0 in the MRCM. This addresses the potential confusion whether an attribute is grouped or not in role group 0.

The improvements provide consistent representation for role groups in the OWL axioms, inferred relationship file and diagramming of the concept model.

## 2.3.4. Concrete Domains and Numeric Representation

The Modeling Advisory Group is working on concrete domains and how they will be represented in the inferred RF2 relationship file format. The following is a note on the interim solution relating to concrete domain for the medicinal product model:

Numerics are represented by concepts in the Medicinal product concept model in SNOMED CT, which is an interim solution before the implementation of concrete domains to support data types, such as decimal, integer, string and date/time. We are in progress for the development of the specification for the inferred relationship file and consult with the community of practice. When they are ready, strength in medicinal product model can be transformed to concrete domains. The transformation will be completed by technical changes without impact to classification results.

The further information about current progress on Concrete Domains can be found at:

https://confluence.ihtsdotools.org/display/mag/Modeling+Advisory+Group (Please note, you may have to register for Confluence user account in order to access this link).

# 2.4. SNOMED CT derived products

## 2.4.1. ICD-10 map

The SNOMED CT to the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (© World Health organisation 1994) 2016 Version map (SNOMED CT to ICD-10 Map) is included in the SNOMED CT International release as a Baseline. The SNOMED CT to ICD-10 Map was created to support the epidemiological, statistical and administrative reporting needs of SNOMED International member countries and WHO Collaborating Centres.

The SNOMED CT to ICD-10 Map is released in Release Format 2 (RF2) only. It is located in the file der2\_iisssccRefset\_ExtendedMapFull\_INT\_20200131.txt, which is in the Map folder under Refset, in each of the three RF2 Release Type folders.

The SNOMED CT to ICD-10 Map is released as Refset 447562003 |ICD-10 complex map reference set (foundation metadata concept)|.

#### 2.4.1.1. Content development activity summary

The map is a directed set of relationships from SNOMED CT source concepts to ICD-10 target classification codes. The SNOMED CT source domains for the MAP are limited to subtypes of 404684003 |clinical finding|, 272379006 |event| and 243796009 |situation with explicit context|. The target classification codes are ICD-10 2016 release.

#### 2.4.1.2. Mapped content for January 2020

The map provided for the January 2020 release has been updated, and now represents a complete map from SNOMED CT International release to ICD-10 2016 version.

- 1501 new concepts added
- Quality improvement continues and Map QA project 51 resulted in revision of 27 concepts to represent sclerosis of bypass grafts.
- Map QA project 55, Fractures without external cause advice, was completed resulting in revision of 70 concepts.
- Map QA project 60, 328 concepts have been reviewed for inconsistent map advice. The focus was the SNOMED to ICD-10 Chapter X1V Diseases of the genitourinary system (N00-N99).

We would welcome feedback on any issues that users of the map may detect when using the map. Issues should be submitted via mapp ing@snomed.org

#### 2.4.1.3. Technical Guide Exemplars

The Technical Guide Exemplars document has now been moved from the International Edition release package to a Confluence page. This page can be found as part of the ICD-10 Mapping Technical Guide (see Appendix B), which is hosted here: http://snomed.org/icd10map

## 2.4.2. ICD-O Map

The maps to ICD-O-3.1 are being updated only for error correction purposes for the January 2020 release. The maps to ICD-O-3.2 are out of scope for the January 2020 release and are planned for a future release when the ICD-O-3.2 classification has been published by WHO (IARC).

As part of the initial QA process 34 ICD-O-3.1 morphology maps to grouper concepts with "- category" in the FSN were removed and assigned a 'no target' map in preparation for the ICD-O-3.2 update.

For the January 2020 release a total of 69 morphology concepts in the 400177003 Neoplasm and/or hamartoma (morphologic abnormality) subhierarchy were mapped. 31 were mapped to ICD-O-3.1 morphology codes and 38 assigned a 'no target' map (consisting mainly of new morphology concepts) awaiting the ICD-O-3.2 update and availability of new codes in the mapping tool. For example new concept 788565009: Indolent T-cell lymphoproliferative disorder of gastrointestinal tract (morphologic abnormality) has no target map until ICD-O-3.2 is available but the new morphology has been used to fully define the disorder concept 783565007 Indolent T-cell lymphoproliferative disorder of gastrointestinal tract (disorder).

SNOMED CT to OWL conversion and classification The repository containing the toolkit enabling simple SNOMED CT to OWL conversion and classification can be found here, including documentation on its use: <a href="https://github.com/lHTSDO/snomed-owl-toolkit">https://github.com/lHTSDO/snomed-owl-toolkit</a>

Please contact SNOMED International at support@snomed.org if you would like to provide any feedback on ways to extend and improve the new toolkit.

## Technical notes

#### 3.1. Known Issues

Known Issues are content or technical issues where the root cause is understood, and the resolution has been discussed and agreed but has yet to be implemented. This can be due to a number of reasons, from lack of capacity within the current editing cycle, to the risk of impact to the stability of SNOMED CT if the fix were to be deployed at that stage in the Product lifecycle.

For the SNOMED CT January 2020 International edition, the following Known Issues were identified, and agreed to be resolved in future editing cycles:

Key Summary Description

No issues found

#### 3.2. Resolved Issues

Resolved issues are Known Issues which were not fixed as part of the previous release lifecycle, but which have now been resolved in the latest release. They can also be issues found during the Alpha and Beta testing of the current release, which were resolved before the final deployment of the associated Member release. Finally they can be issues which were reported or found during the testing phase, but which have been closed without any action taken.

The Resolved Issues for the Snomed CT January 2020 International edition can be found here:

Key Summary Description Resolved

ISRS- 176	RVF Assertion failure: 19423070-7118-45bd- 98ba-6d0dc18bc619	"assertionUuid": "19423070-7118-45bd-98ba-6d0dc18bc619", "assertionText": "For each active FSN there is a synonym that has the same text.", "failureCount": 142, "firstNInstances": [	2021-Mar-02
		<ul> <li>{ "conceptId": "12455009", "detail": "12455009  Calcium measurement in 24 hour excretion in feces (procedure) " }</li> <li>{ "conceptId": "17519006", "detail": "17519006  Drug lotion (qualifier value) " }</li> <li>{ "conceptId": "24891006", "detail": "24891006  Sodium diatrizoate (product) " }</li> <li>{ "conceptId": "39892006", "detail": "39892006  Mucoepidermoid tumor (morphologic abnormality) " }</li> <li>{ "conceptId": "39911004", "detail": "39911004  Cholesteatoma of middle ear AND/OR mastoid (disorder) " }</li> <li>{ "conceptId": "47287008", "detail": "47287008  Hearing summating potential (observable entity)  " }</li> <li>{ "conceptId": "71516007", "detail": "71516007  Product containing vitamin D&gt;2&lt; (medicinal product) " }</li> <li>{ "conceptId": "74532006", "detail": "74532006  Glioma, malignant (morphologic abnormality) " }</li> <li>RESOLUTION: Resolved in time for the January 2020 International Edition Production release.</li> </ul>	
ISRS- 571	OWL header process	The practice of creating new headers for an edition version of the OWL refset, inactivating headers of the dependencies seem to be a practice/policy to revise.	2019-Nov- 19
		RESOLUTION: The OWL Guide has been updated and will be reviewed by the MAG.	
ISRS- 574	DROOLS assertion failure: "An FSN containing the word "pre-filled" must be	assertionText: "An FSN containing the word "pre-filled" must be changed to prefilled.", failureCount: 58, firstNInstances: [	2019-Jun-28
changed to prefilled."	$\label{lem:conceptId: "402085000", detail: "An FSN containing the word "pre-filled" must be changed to prefilled."}$		
		{conceptld: "402085000", detail: "An FSN containing the word "pre-filled" must be changed to prefilled."} {conceptld: "402087008", detail: "An FSN containing the word "pre-filled" must be changed to prefilled."}	
		RESOLUTION: The SNOMED International Content Team have confirmed that this is no longer a valid assertion, and can be removed from all DROOLS validation. This has now been implemented, and therefore no content updates are required.	
ISRS- 661	RVF Assertion failure: 411e9840-7d08-11e1- b0c4-0800200c9a66	assertionUuid: "411e9840-7d08-11e1-b0c4-0800200c9a66" assertionText: "Relationship groups contain at least 2 relationships.", failureCount: 147503,	2019-Nov- 19
		RESOLUTION: SNOMED International Content team confirmed that as self grouping is allowable, these issues are therefore false positives that do not require any content changes.	
ISRS- 662	DROOLS assertion failure: "Active concepts must have at	assertionText: "Active concepts must have at least one IS A relationship.", failureCount: 1, firstNInstances: [	2019-Nov- 19
	least one IS A relationship."	• {conceptId: "138875005", detail: "Active concepts must have at least one IS A relationship."}	
		RESOLUTION: SNOMED International Content Team confirmed that as this is the root concept (138875005  SNOMED CT Concept (SNOMED RT+CTV3) ) it is the only exception to this rule, and will therefore never have an IS_A relationship. The rule now appears to be running correctly, and so no editing changes are required - this one concept just needs to be manually whitelisted in all future validation runs.	
ISRS- 663	RVF Assertion failure: b88b9f46-4c33-4d8e- b9ab-ddb87aef3068	assertionUuid: "b88b9f46-4c33-4d8e-b9ab-ddb87aef3068", assertionText: "New inactive states follow active states in the ASSOCIATION REFSET snapshot file.", failureCount: 24, firstNInstances: [	2021-Mar-02
		{conceptId: "254439003", detail: "ASSOC RS: id=84fd3311-705d-4ab0-ab84-989eaa048839 should not have a new inactive state as it was inactive previously.") {conceptId: "304063008",	
		detail: "ASSOC RS: id=92821196-a063-4ac3-9010-ed32c0d3fc8a should not have a new inactive state as it was inactive previously."}	

ISRS- 664	RVF Assertion failure: c82246b1-a137-40c5- 8653-554c9ce82c6b	assertionUuid: "c82246b1-a137-40c5-8653-554c9ce82c6b", assertionText: "Active preferred terms for active concepts are unique in the same hierarchy", failureCount: 2, firstNInstances: [	2019-Nov- 19
		<ul> <li>{conceptId: "420559008", detail: "Preferred term=L is duplicated in hierarchy (qualifier value)"}</li> <li>{conceptId: "258770004", detail: "Preferred term=L is duplicated in hierarchy (qualifier value)"}</li> </ul>	
		RESOLUTION: SNOMED International Content team confirmed that this is a warning only (that has been whitelisted), and so no further action is required.	
ISRS- 665	RVF Assertion failure: cc9c5340-84f0-11e1- b0c4-0800200c9a66	assertionUuid: "cc9c5340-84f0-11e1-b0c4-0800200c9a66", assertionText: "Terms that contain en-gb specific words are in the en-gb language refset.", failureCount: 3, firstNInstances: [	2019-Nov- 27
		<ul> <li>{conceptld: "337414009",detail: "DESCRIPTION: id=3785821018: Synonym is preferred in the en-gb language refset but refers to a word that has en-us spelling: meter"}</li> <li>{conceptld: "789120001", detail: "DESCRIPTION: id=3787001017: Synonym is preferred in the en-gb language refset but refers to a word that has en-us spelling: neurenter"}</li> <li>{conceptld: "52564001", detail: "DESCRIPTION: id=87469013: Synonym is preferred in the en-gb language refset but refers to a word that has en-us spelling: wooly}</li> </ul>	
		RESOLUTION: SNOMED International Content team confirmed that these 3 components can be whitelisted specifically for this assertion, and do not therefore require any content changes.	
ISRS-	RVF Assertion failure:	assertionUuid: "35680574-3ac6-4b68-9efe-de88b677eb35"	2021-Mar-02
666 35680574-3ac6-4b68- 9efe-de88b677eb35	assertionText: "There must be actual changes made to previously published association refset components in order for them to appear in the current delta.", failureCount: 149, firstNInstances: [		
		<ul> <li>{ conceptId: "787218001", detail: "Association refset id=84110175-7b17-4087-9315-63137e1e4d5c is in the detla file, but no actual changes made since the previous release." }</li> <li>{ conceptId: "254439003", detail: "Association refset id=84fd3311-705d-4ab0-ab84-989eaa048839 is in the detla file, but no actual changes made since the previous release." }</li> <li>{ conceptId: "787050004", detail: "Association refset id=867f12d9-cabc-4ecf-9b8f-bd27518f6055 is in the detla file, but no actual changes made since the previous release." }</li> </ul>	
		RESOLUTION: Lateralizable refset refined in time for the January 2020 Member release.	
ISRS- 667	RVF Assertion failure: 4478a896-2724-4417- 8bce-8986ecc53c4e	assertionUuid: "4478a896-2724-4417-8bce-8986ecc53c4e", assertionText: "There must be actual changes made to previously published concepts in order for them to appear in the current delta.", queryInMilliSeconds: 1250, failureCount: 1, firstNInstances: [	2021-Mar-02
		{ conceptId: "209401004", detail: "Concept: id=209401004 is in the delta file, but no actual changes made since the previous release." }	
		RESOLUTION: Resolved in the termServer in time for the January 2020 Member release.	
ISRS- 669	Manual validation errors - Simple refset	Manual Validation has returned an unexpected error, whereby 2 of the active simple Refset records appear to be referencing inactive Concept records:	2021-Mar-02
records referencing inactive concepts	Refsetid Refseteffectivetime Refsetactive Refsetmoduleid Refsetrefsetid Refsetreferencedcomponentid		
		Conceptid Concepteffectivetime Conceptactive Conceptmoduleid Conceptdestinationstatusid	
		• 94b62cea-42c5-4a65-8e06-242fbdcee14f 20190131 1 900000000000207008 723264001 771409004 771409004 20200131 0 900000000000207008 9000000000074008	
		44e2c896-a1de-4c62-a18c-175ed1daefce 20190131 1 900000000000207008 723264001 771410009 771410009 20200131 0 900000000000207008 9000000000074008	
		RESOLUTION: Lateralizable refset refined in time for the January 2020 Member release.	

674 C	Concepts with GCI 039s have at least two such axioms  Defined concepts with no attributes	Concepts with GCI 039s have at least two such axioms  This test has been created based on the assumption that all concepts with GCI's appear to have at least two axioms. The following concept does not:  • 128092005 Secondary autoimmune thrombocytopenia (disorder)  The question then becomes what other sufficient definitions the concept could have? Why a GCI? RESOLUTION: The SNOMED International Content Team have confirmed that it is not necessary to have two or more GCI's. The disjunctive concept is used as an example for applying GCI's in the document, however it is still valid to have a single GCI axiom when appropriate. A GCI axiom represents a sufficient condition. A concept can have one or more sufficient conditions.  There are more potential GCI's for 128092005  Secondary autoimmune thrombocytopenia (disorder)  and so the model could be improved by adding additional GCIs to achieve more complete subsumption, however at this time there is ongoing discussion about 'secondary disorders' and whether they should remain in SNOMED CT. Content relating to secondary disorders can be modelled with additional GCI when an editorial decision is finalised. Improvements to content with GCI will be incremental because new content is added over the releases and new subconcepts might require new additional GCI's. No action is therefore required for this release, the content will be continually reviewed and refined accordingly in future editing cycles.  In the course of our quality assurance validation, defined concepts have been identified which do not have attributes.  RESOLUTION: These concepts are marked fully defined by virtue of their stated IS_A relationships which was in the past acceptable. Editorial policy has subsequently changed and	2019-Dec- 05
ISRS- [	such axioms  Defined concepts with	at least two axioms. The following concept does not:  • 128092005 Secondary autoimmune thrombocytopenia (disorder)  The question then becomes what other sufficient definitions the concept could have? Why a GCI? RESOLUTION: The SNOMED International Content Team have confirmed that it is not necessary to have two or more GCl's. The disjunctive concept is used as an example for applying GCl's in the document, however it is still valid to have a single GCl axiom when appropriate. A GCl axiom represents a sufficient condition. A concept can have one or more sufficient conditions.  There are more potential GCl's for 128092005  Secondary autoimmune thrombocytopenia (disorder)  and so the model could be improved by adding additional GCls to achieve more complete subsumption, however at this time there is ongoing discussion about 'secondary disorders' and whether they should remain in SNOMED CT. Content relating to secondary disorders can be modelled with additional GCl when an editorial decision is finalised. Improvements to content with GCl will be incremental because new content is added over the releases and new subconcepts might require new additional GCl's. No action is therefore required for this release, the content will be continually reviewed and refined accordingly in future editing cycles.  In the course of our quality assurance validation, defined concepts have been identified which do not have attributes.  RESOLUTION: These concepts are marked fully defined by virtue of their stated IS_A	2020-Nov-
	· ·	The question then becomes what other sufficient definitions the concept could have? Why a GCI?  RESOLUTION: The SNOMED International Content Team have confirmed that it is not necessary to have two or more GCI's. The disjunctive concept is used as an example for applying GCI's in the document, however it is still valid to have a single GCI axiom when appropriate. A GCI axiom represents a sufficient condition. A concept can have one or more sufficient conditions.  There are more potential GCI's for 128092005  Secondary autoimmune thrombocytopenia (disorder)  and so the model could be improved by adding additional GCIs to achieve more complete subsumption, however at this time there is ongoing discussion about 'secondary disorders' and whether they should remain in SNOMED CT. Content relating to secondary disorders can be modelled with additional GCI when an editorial decision is finalised. Improvements to content with GCI will be incremental because new content is added over the releases and new subconcepts might require new additional GCI's. No action is therefore required for this release, the content will be continually reviewed and refined accordingly in future editing cycles.  In the course of our quality assurance validation, defined concepts have been identified which do not have attributes.  RESOLUTION: These concepts are marked fully defined by virtue of their stated IS_A	
	· ·	RESOLUTION: The SNOMED International Content Team have confirmed that it is not necessary to have two or more GCl's. The disjunctive concept is used as an example for applying GCl's in the document, however it is still valid to have a single GCl axiom when appropriate. A GCl axiom represents a sufficient condition. A concept can have one or more sufficient conditions.  There are more potential GCl's for 128092005  Secondary autoimmune thrombocytopenia (disorder)  and so the model could be improved by adding additional GCls to achieve more complete subsumption, however at this time there is ongoing discussion about 'secondary disorders' and whether they should remain in SNOMED CT. Content relating to secondary disorders can be modelled with additional GCl when an editorial decision is finalised. Improvements to content with GCl will be incremental because new content is added over the releases and new subconcepts might require new additional GCl's. No action is therefore required for this release, the content will be continually reviewed and refined accordingly in future editing cycles.  In the course of our quality assurance validation, defined concepts have been identified which do not have attributes.  RESOLUTION: These concepts are marked fully defined by virtue of their stated IS_A	
	· ·	necessary to have two or more GCl's. The disjunctive concept is used as an example for applying GCl's in the document, however it is still valid to have a single GCl axiom when appropriate. A GCl axiom represents a sufficient condition. A concept can have one or more sufficient conditions.  There are more potential GCl's for 128092005  Secondary autoimmune thrombocytopenia (disorder)  and so the model could be improved by adding additional GCls to achieve more complete subsumption, however at this time there is ongoing discussion about 'secondary disorders' and whether they should remain in SNOMED CT. Content relating to secondary disorders can be modelled with additional GCl when an editorial decision is finalised. Improvements to content with GCl will be incremental because new content is added over the releases and new subconcepts might require new additional GCl's. No action is therefore required for this release, the content will be continually reviewed and refined accordingly in future editing cycles.  In the course of our quality assurance validation, defined concepts have been identified which do not have attributes.  RESOLUTION: These concepts are marked fully defined by virtue of their stated IS_A	
	· ·	(disorder)  and so the model could be improved by adding additional GCIs to achieve more complete subsumption, however at this time there is ongoing discussion about 'secondary disorders' and whether they should remain in SNOMED CT. Content relating to secondary disorders can be modelled with additional GCI when an editorial decision is finalised. Improvements to content with GCI will be incremental because new content is added over the releases and new subconcepts might require new additional GCI's. No action is therefore required for this release, the content will be continually reviewed and refined accordingly in future editing cycles.  In the course of our quality assurance validation, defined concepts have been identified which do not have attributes.  RESOLUTION: These concepts are marked fully defined by virtue of their stated IS_A	
	· ·	not have attributes.  RESOLUTION: These concepts are marked fully defined by virtue of their stated IS_A	
		we now require a proximal primitive parent and the addition of attribute and value pairs. These modelling issues are being addressed by the ongoing QI project (in many cases using template based editing), and therefore the SNOMED International Content Team have confirmed that no changes specific to the release are required at present. The issues will instead be naturally resolved over time, as part of the ongoing QI project work.	
692 b	RVF Assertion failure: bec23e05-e977-4190- aa6a-137e5742f513	assertionUuid: "bec23e05-e977-4190-aa6a-137e5742f513", assertionText: "Referencedcomponentid refers to valid concepts in the ASSOCIATION REFSET snapshot file.", failureCount: 108, firstNInstances: [	2019-Nov- 28
		{ conceptId: "787879005", detail: "ASSOC RS: id=787879005:Invalid Referencedcomponentid in ASSOCIATION REFSET snapshot."     { conceptId: "787880008", detail: "ASSOC RS: id=787880008:Invalid Referencedcomponentid in ASSOCIATION REFSET snapshot."     { conceptId: "787915005", detail: "ASSOC RS: id=787915005:Invalid Referencedcomponentid in ASSOCIATION REFSET snapshot."	
		RESOLUTION: Config resolved, no longer failing in latest Release build	
693	RVF Assertion failure: 35ec824d-b53d-4567- 833e-8ce79774acae	assertionUuid: "35ec824d-b53d-4567-833e-8ce79774acae", assertionText: "TargetComponentId refers to valid concepts in the ASSOCIATION REFSET snapshot file.", failureCount: 98, firstNInstances: [	2019-Nov- 28
		• { conceptId: "788337006", detail: "ASSOC RS: Targetcomponentid=788338001:Invalid	
		TargetComponentId." } • { conceptId: "788798001", detail: "ASSOC RS: Targetcomponentid=788799009:Invalid TargetComponentId." }	
		• { conceptld: "788617003", detail: "ASSOC RS: Targetcomponentid=788618008:Invalid TargetComponentId." }	
		RESOLUTION: Config refined, Association Reference Set resolved in time for the January 2020 Member Release. No updates to content were required.	
694	RVF Assertion failure: 6a407415-8415-4870- a6ef-b5bc22f73c1f	assertionUuid: "6a407415-8415-4870-a6ef-b5bc22f73c1f", assertionText: "Referencedcomponentid refers to valid concepts in the SIMPLE REFSET snapshot.", failureCount: 140, firstNInstances: [	2019-Nov- 28
		{ conceptId: "788673006", detail: "Simple RefSet:788673006:Invalid Referencedcomponentid in Simple Refset snapshot." }     { conceptId: "788690000", detail: "Simple RefSet:788690000:Invalid Referencedcomponentid in Simple Refset snapshot." }     { conceptId: "789202003", detail: "Simple RefSet:789202003:Invalid Referencedcomponentid in Simple Refset snapshot." }	
		RESOLUTION: Config resolved, no longer failing in latest Release build	

ISRS-	DROOLS Assertion
695	failure: Active
	descriptions must not
	have the same term as
	another within the
	concept unless the
	language code is
	different. Please
	remove one of the
	descriptions.

testType: "DROOL\_RULES",

assertionText: "Active descriptions must not have the same term as another within the concept unless the language code is different. Please remove one of the descriptions.", failureCount: 2,

firstNInstances: [

- { conceptId: "40015002", detail: "Active descriptions must not have the same term as another
  within the concept unless the language code is different. Please remove one of the
  descriptions." }
- { conceptId: "40015002", detail: "Active descriptions must not have the same term as another
  within the concept unless the language code is different. Please remove one of the
  descriptions." }

RESOLUTION: Config resolved, no longer failing in latest Release build....

ISRS- Attribute value pair for Role Group 1 in Full file but not in Snapshot

There are two concepts which have been remodelled as part of the QI project, and have had an extra value pair added with no changes other than a new Role Group. Instead of a new record being created for the additional value pair, the external classifier has treated this as an update to the mutable Role Group field, and replaced the original record in the Snapshot file with an updated record with the same relationship ID:

4

2021-Mar-02

2019-Nov-

#### Expected result:

id effectiveTime active moduleld sourceld destinationId relationshipGroup typeId characteristicTypeId modifierIdid effectiveTime active moduleld sourceId destinationId relationshipGroup typeId characteristicTypeId modifierId

- 5001183026 20150131 1 90000000000207008 253629005 24216005 1 116676008 90000000000011006 9000000000451002
- 12073368022 20200131 1 900000000000207008 253629005 24216005 2 116676008 9000000000011006 90000000000451002
- 4973967029 20150131 1 900000000000207008 239152005 255399007 1 246454002 900000000011006 90000000000451002
- 12070080020 20200131 1 90000000000207008 239152005 255399007 2 246454002 900000000011006 90000000000451002

Actual result in Member release Snapshot:

id effectiveTime active moduleld sourceld destinationId relationshipGroup typeId characteristicTypeId modifierIdid effectiveTime active moduleld sourceId destinationId relationshipGroup typeId characteristicTypeId modifierId

- 12073368022 20200131 1 90000000000207008 253629005 24216005 2 116676008 9000000000011006 90000000000451002
- 12070080020 20200131 1 9000000000207008 239152005 255399007 2 246454002 900000000011006 90000000000451002

RESOLUTION: The classifier has always reconciled relationship ID's in order to prevent unnecessary churn in the inferred files. This means that changes to any mutable fields (such as the Role Group) have resulted in an updated relationship record with the same ID as before, rather than a new record with a separate ID. This was perfectly valid in terms of Stated Relationship modelling, but now that we're authoring using Axioms this can occasionally be a limitation, as in this case. SNOMED International have therefore implemented a permanent solution for this, whereby the termServer classification results are now used for the release package Relationship file creation, instead of the original separate classification.

ISRS-699 MRCM Domain files

Issues with the bracketing structure and missing additional optional role groups reported.

2020-Jan-27

RESOLUTION: 5 MRCM Domain records were refined in time for the January 2020 International Edition Production release.

19 issues

## 3.2.1. Technical updates

#### 3.2.1.1. RF2 package format

For future reference, the RF2 package convention dictates that it contains all relevant files, regardless of whether or not there is content to be included in each particular release. Therefore, the package contains a mixture of files which contain both header rows and content data, and also files that are intentionally left blank (including only a header record). The reason that these files are not removed from the package is to draw a clear distinction between files that:

- have been deprecated (and therefore removed from the package completely), due to the content no longer being relevant to RF2 in this
  or future releases, and
- happen to contain no data in this particular release (and are therefore included in the package but left blank, with only a header record), but are still relevant to RF2, and could therefore potentially contain data in future releases.

This allows users to easily distinguish between files that have purposefully been removed or not, as otherwise if files in option 2 above were left out of the package it could be interpreted as an error, rather than an intentional lack of content in that release.

#### 3.2.1.2. Early visibility of impending change in the January 2020 International edition

Please see the following page for details of all upcoming changes planned for January 2020 and beyond: January 2020 Early Visibility Release Notices - Planned changes to upcoming SNOMED International Release packages.

#### 3.2.1.3. Release Notes naming convention

The Release notes naming convention has been refined to bring it in line with other documentation standards - from this release onwards the files will have the following naming format:

o doc\_SnomedCTReleaseNotes\_Current-en-US\_INT\_[date].pdf

Instead of the previous underscore after "Current":

o doc\_SnomedCTReleaseNotes\_Current\_en-US\_INT\_[date].pdf

#### 3.2.1.4. Document links

All links provide information that is correct and current at the time of this Release. Updated versions may be available at a later date, but if so these will need to be requested from the relevant SNOMED International teams.

**NOTE**: To access any of the links in the pdf document, please visit the Release Notes @ https://confluence.ihtsdotools.org/display/RMT/SNOMED+CT+January+2020+International+Edition+-+SNOMED+International+Release+notes

#### **Approvals**

Final Version	Date	Approver	Comments
0.1	15/11/2019	Maria Braithwaite	Approved
0.1	15/11/2019	Donna Morgan	Approved
0.1	15/11/2019	Paul Amos	Approved
0.1	15/11/2019	Monica Harry	Approved
0.2	07/12/2019	Rory Davidson	Approved
0.2	07/12/2019	Maria Braithwaite	Approved
0.2	Dec. 8 2019	Monica Harry	Approved
1.0	27/01/2020	Monica Harry	Approved
1.0	29/01/2020	Maria Braithwaite	Approved
1.0	29/01/2020	Rory Davidson	Approved

#### **Draft Amendment History**

Version	Date	Editor	Comments
0.1	201910 15	Andrew Atkinson	First draft for review and comment
0.1	201911 26	Maria Braithwaite / Andrew Atkinson	Final updates, including map record count update
0.2	201912 04	Maria Braithwaite / Yongsheng Gao	Beta updates, including OWL effectiveTime explanation