

# Early Visibility - Planned changes to upcoming SNOMED International Release packages

## Overview of Current Notices

For additional Relevant links with regards to [Content Development Information](#) please click here [Content Development Information](#)

Proposed improvement	Planned Release date (*this is provisional only and is subject to change)
1 LOINC timeline changes - please refer to Roadmap link here <a href="#">LOINC</a>	July 2018 and potentially other future releases - On hold
<p>2 <b><u>Revision of IS A relationships for anatomy concepts</u></b></p> <p>The new anatomy concept model implemented 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 the production. The potential impact to other hierarchies, such as disorders, procedures, observables, situations etc are also reviewed as part of the project.</p> <p>The revision of sub-hierarchy 26107004 Structure of musculoskeletal system (body structure)  has been planned for the January 2019 release. The rest body systems will be revised in the future releases.</p> <p>The subject area for revision of IS A relationships will be determined and updated in the following confluence page.  <a href="https://confluence.ihtsdotools.org/display/IAP/Revision+of+IS-A+relationships+for+anatomy">https://confluence.ihtsdotools.org/display/IAP/Revision+of+IS-A+relationships+for+anatomy</a></p>	January 2019 International Edition
<p>3 <b><u>Summary of Drugs changes</u></b></p> <p><b>Groupers (disposition, structural)</b></p> <ul style="list-style-type: none"> <li>• Preferred terms updated for existing concepts (n500)</li> <li>• Synonyms matching FSN removed for existing concepts (n500)</li> </ul> <p><b>MP-containing</b></p> <ul style="list-style-type: none"> <li>• Preferred terms updated for existing concepts (n3800)</li> <li>• Synonyms matching FSN removed for existing concepts (n3800)</li> </ul> <p><b>MP-only</b> New concepts created (n3800)</p> <p><b>MPF-containing</b></p> <ul style="list-style-type: none"> <li>• Preferred terms updated for existing concepts (n2800)</li> <li>• Synonyms matching FSN removed for existing concepts (n2800)</li> </ul> <p><b>MPF-only</b> New concepts created (n2800)</p> <p><b>Clinical drug</b> Synonyms matching FSN removed for existing concepts (n4900)</p> <p><b>Role:</b></p>	January 2019 International Edition

- New additional axioms to model therapeutic role (nTBD; currently expect hundreds)
- Populated new 766941000 |Therapeutic role (role)| hierarchy (nTBD; currently expect hundreds)
- Created new 773830008 |Consumer product (product)| hierarchy as sibling of 763158003 |Medicinal product (product)|. Relocated descendants of 763087004 |Medicinal product categorized by therapeutic role (product)| as appropriate (e.g. Aftershave, Deodorant, Perfume) (n25)
- Inactivated role concepts representing body site or body system (e.g. Gastrointestinal drug, Genitourinary drug) (n15)
- Relocated 43747001 |Drug excipient (product)| as sibling of 763158003 |Medicinal product (product)|. Relocated descendants of 763087004 |Medicinal product categorized by therapeutic role (product)| as appropriate (e.g. Drug additive, Drug flavoring) (n15)

**New semantic tags, attribute and hierarchies added and MRCM change made to support National Extension Model.**

- New top level concept added (for use by national extension model but not for International Release)
  - 781405001 |Medicinal product package (product)|
- New semantic tags added (for use by national extension model but not for International Release)
  - (product name)
  - (packaged clinical drug)
  - (real clinical drug)
  - (real medicinal product)
  - (real packaged clinical drug)
  - (supplier)
- New attributes added (for use by national extension model but not for International Release)
  - 774158006 |Has product name (attribute)|
  - 774159003 |Has supplier (attribute)|
  - 774160008 |Contains clinical drug (attribute)|
  - 774161007 |Has pack size (attribute)|
  - 774163005 |Has pack size unit (attribute)|
- New hierarchies added (for use by national extension model but not for International Release)
  - 774164004 |Supplier (supplier)|
  - 774167006 |Product name (product name)|

Updated briefing: Briefing note - Implications of describing liquid dose form product concepts v2, can be found on second table of this page [Reference Documentation - Drug Model](#)

#### 4 Summary of Substances Changes

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- Flattening of Substance hierarchy: Implement/updated "Is modification" attribute where applicable
- Add new substances required for creation of new medicinal products
- Add new dispositions and structural grouper concepts to model existing content
- Update modelling for existing concepts by adding "has disposition" attribute where applicable
- Update modelling for existing concepts by adding missing structural parents
- Improve substance concepts in the areas of
  - Updating case sensitivity based on editorial guidelines
  - Alignment to the International Nonproprietary Name
- Changes in the substance hierarchy as the result of Allergy project requirements:
  - Inactivate top level groupers/Allergen classes in substance hierarchy by reassigning their children to appropriate structural and/or functional parents:
    - 414052000 | Drug allergen by structure |
    - 414058001 | Drug pseudoallergen by function |
    - 414057006 | Drug pseudoallergen |
    - 414053005 | Drug allergen or pseudoallergen |
  - Inactivate "Allergy to X" concepts where X is a modification of a base substance and replace it with Allergy to the base substance

**5 Remodeling of hypersensitive conditions**

- Immunoglobulin E-mediated allergic contact hypersensitivity process (qualifier value) and Non-immunoglobulin E-mediated allergic contact hypersensitivity process (qualifier value) have been created.
- Hypersensitivity, allergy and pseudoallergy condition classes will be moved under 404684003 |Clinical finding (finding)| and modeled using GCIs in order to encompass allergic disorders, dispositions and processes (reactions).
- Hypersensitivity, allergy and pseudoallergy dispositions (the latter renamed as Non-allergic hypersensitivity based on feedback from the Allergy CRG) will be moved under 404684003 |Clinical finding (finding)| and remodeled using proximal primitive parents with a role group consisting of 719722006 |Has realization (attribute)| with a value of 472963003 |Hypersensitivity process (qualifier value)| or an appropriate subtype and a causative agent relationship to a substance and follow a naming pattern of Hypersensitivity/Allergy/Non-allergic hypersensitivity to X (finding).
- 414029004 |Disorder of immune function (disorder)| will be remodeled and fully defined using a pathological process of 769247005 |Abnormal immune process (qualifier value).
- A new hierarchy of Intolerance to substance (finding) will be created.

Hypersensitivity, allergy and pseudoallergy condition are modelled by general concept inclusion (GCI) axioms. The relationships in the GCIs are sufficient conditions which are excluded from the inferred relationships. The GCIs in the OWL axiom refset must be used with stated relationship file to enable correct classification for hypersensitivity conditions.

In addition to the changes to the concept model, the FSNs and Preferred terms will be updated to ensure consistent description patterns. The changes are word order in descriptions and they do not change the meaning. For example, Amoxicillin allergy (disorder) would be changed to Allergy to amoxicillin (disorder).

changes in the substance hierarchy as the result of Allergy project requirements (Allergies-30 and Allergies-32):

- Inactivate the following two top level groupers/Allergen classes in substance hierarchy by reassigning their children to appropriate structural and/or functional parents :
  - 414052000 | Drug allergen by structure |
  - 414058001 | Drug pseudoallergen by function

**6 Summary of Organism Changes**

- Improve Organism concepts by
  - Applying consistent case sensitivity to organism descriptions containing "Taxon Rank"
  - Fixing spelling mistakes in FSN and synonyms
- Correct Influenza virus descriptions

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**7 Quality improvements on Clinical Findings**

- 125666000|Burn
- 416462003|Wound (including closed and opened wound)
- 125605004|Fracture of bone
- 34014006|Viral disease
- 95896000|Protozoan infection

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<p>8 <b><u>Replacement of OWL conversion script with a link to the open source directory</u></b></p> <p>In January 2017 the original OWL conversion script (a.k.a. the "Spackman OWL script") was removed from the International Edition package, and has since been published as a separate artefact alongside each Release.</p> <p>Because this script does not recognize the two new OWL refsets (see section 3.3.2 of these Release Notes), the Terminology Release Advisory Group has determined that the script should no longer be distributed.</p> <p>Going forward, Release Notes will now include a link to the new open source OWL conversion toolkit that can be found in the following repository (including documentation on its use):</p> <p><a href="https://github.com/IHTSDO/snomed-owl-toolkit">https://github.com/IHTSDO/snomed-owl-toolkit</a></p> <p>Please contact SNOMED International at <a href="mailto:support@snomed.org">support@snomed.org</a> if you would like to provide any feedback on ways to extend and improve the new toolkit.</p>	July 2018 International Edition
<p>9 <b><u>Deprecation of the Technical Guide Exemplars document from the International Edition release package</u></b></p> <p>The Terminology Release Advisory Group has confirmed that there should be no impact from removing this almost entirely static document from the International Edition release package, and hosting it instead in a Confluence Page. From the July 2018 International release then, we will deprecate this file (doc_lcd10MapTechnicalGuideExemplars_[date].xlsx) from the Release package, and instead provide a link in the Release Notes to the new Confluence Page. Please see section 2.4.1.3 of the Release Notes for the relevant link.</p>	July 2018 International Edition

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

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*Following the feedback, the normal stated relationship file will still be available in the January 2019 release package and the partial OWL axiom refset will include all description logic features that cannot be represented in the stated relationship file.*

*The complete OWL axiom reference set, which includes all logical definitions and the enhanced DL features, will be available on request in the January 2019 release.*

*In the July 2019 release, the stated relationship file will be replaced by the complete OWL Axiom refset file. The stated relationship file will NOT be included in the international release; however, it may still be available on request to support migration to the OWL Axiom refset.*

### **IMPORTANT NOTE FOR USERS**

*Users should carefully analyse any potential impact to their systems (upload routines, etc) and make provisions for these changes urgently (if not already done), in order to prevent any issues when these changes come into effect in January 2019. Please contact SNOMED International at [support@snomed.org](mailto:support@snomed.org) with “OWL Axiom refset files implementation question” in the subject line.*

The inferred relationship file will maintain the same format and structure, though it will no longer contain all necessary and sufficient conditions. The inferred relationship file is represented in Necessary Normal Form for distribution of relationships. It is a collection of all the necessary conditions and represents a subset of the full semantics from the 2018 July release and onwards. Most users will benefit from the improvements in the inferred relationships without requiring changes to their existing systems.

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

- [SNOMED DL Profile Enhancements](#)
- [SNOMED CT Logic Profile Specification](#)
- [SNOMED CT OWL Guide \(OWL Refsets specification\)](#)
- [Snomed OWL Toolkit - https://github.com/IHTSDO/snomed-owl-toolkit](https://github.com/IHTSDO/snomed-owl-toolkit)
- [Classifying SNOMED CT using the Snomed OWL Toolkit - https://youtu.be/-91egY9mJqA](https://youtu.be/-91egY9mJqA)
- [Creating an OWL file containing SNOMED CT - https://youtu.be/sfFbMMioA\\_4](https://youtu.be/sfFbMMioA_4)