SNOMED CT Drugs and Substances Alpha package Release Notes - January 2018

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Introduction

The 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. The International Health Terminology Standards Development Organisation (IHTSDO®) maintains the SNOMED CT technical design, the content architecture, the SNOMED CT content (including the concepts table, the descriptions table, the relationships table, a history table and ICD mappings), and related technical documentation.

This document is intended to give a brief description, background context, explanatory notes on the SNOMED CT International Drugs and Substances project and the resulting Alpha release package, which will be published on 28-Feb, 2018 and as needed throughout the current release cycle.

The ALPHA release package is distributed for evaluation purposes only. It must not be used in production clinical systems or in clinical settings.

Audience for this document

This document should be read by all those who will be reviewing or submitting questions or comments related to the Alpha Release, including participation in any follow up meetings.

Scope and Purpose

The scope of the SNOMED CT International **Drugs**

Role chain and DL features to support classification of the product hierarchy and modeling of product roles have been deployed into production.

The release includes a significant number of examples of the following types of content updates:

- Product Groupers including chemical structure, dispositions and combined chemical structure-disposition groupers that have been remodeled using proximal primitive modeling pattern and have terming normalized.
- Role groupers have been relocated and will be fully modeled in the next release, when the users have updated their tools and systems.
- Dose forms hierarchy remodel with additional content.
- MPs and MPFs updated to proximal primitive modeling pattern and have terming normalized.
- CDs will be excluded from this Alpha release.
- Updated Editorial Guide draft and updated Product Model Specification.

Agreement on following have been reached and the features are in the process of implementation, which will be made available for preview before the release in July 2018

- Ingredient count modeling was agreed and approved by Head of Terminology on 08-FEB. Supporting work includes development of Editorial Guidelines, technical implementation and batch updates will be made available in the next preview.
- Concentration strength model was agreed and approved by Head of Terminology. Supporting work includes development of Editorial Guidelines, technical implementation and batch updates will be made available in the next preview.

Outstanding modeling issue:

- Product roles solution has been agreed but the implementation will not start before January 2019, awaiting for the Australian tool to be made compatible to benefit from the changes.

The scope of the SNOMED CT International **Substances** project

Role chain and DL features to support Modification groupers have been deployed and the first flattening has been successfully carried out.

Content on this Alpha release on 28-February 2018.

- Disposition Groupers had been updated, modelled and fully defined in Jan2018 release. A new substance top level concept of Substance categorized by disposition has been created to allow them to be modelled as proximal primitive.
- Role Groupers have been reviewed. Some concepts have been inactivated and others replaced. This work is ongoing

- Additional Disposition concepts and Disposition Groupers have been created.
- Structure Groupers will be retained as primitive concepts.
- Additional Structural Groupers have been created.
- Combined Groupers (Structure + Disposition) will be re-modeled as we progress, the volume for this category is small.
- Implemented "Is modification" attribute to flatten Substance hierarchy.
- Radiopharmaceutical concepts have been remodelled and the terms updated to provide consistent representation of these concepts

The Editorial Guidelines are being updated with current status and will be made available for review on 20180228

Release content

Content detail

Detailed documentation regarding changes to the Substance and Drug hierarchies that are in scope to be reviewed for this Alpha release are located on the project Confluence sites:

- **Drugs** https://confluence.ihtsdotools.org/display/IAP/Drug+Model+Working+Group+-+Directory
- **Substances** https://confluence.ihtsdotools.org/display/IAP/Substance+Project

Please note that comments and questions submitted related to content not specifically identified as in scope for this Alpha release will be rejected.

Effective date

The Alpha release will be made available for your review with an effectiveTime of 20180228.

Technical Notes

RF2 package format

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:

1. …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
2. …files that just 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.

Release of OWL reference sets

As an essential part of SNOMED CT Logic Profile Enhancements, the OWL refsets have been developed to represent logic definitions following the international standard of OWL 2 Web Ontology Language. In this Alpha release and the 2018 July release, the scope for the content in the OWL axiom refset is limited to property chains, transitive properties, and reflexive properties. These are required semantics for classification by Description Logic reasoning services to support the Drug, Substance and Anatomy content projects. They cannot be fully represented by the RF2 stated and inferred relationship files.

The OWL Reference sets are placed under the Terminology folder in the release file package.

- der2_sRefset_OWLOntology_Delta_INT_20180207.txt
- der2_sRefset_OWLAxiom_Delta_INT_20180206.txt

The limited scope of OWL refsets will allow sufficient time for users to develop and update their tooling and systems. The plan is to have full representation of all definitions in the OWL axiom refset in January 2019 release. The stated relationship file will be deprecated after the January 2019 release.

The inferred relationship file will maintain the same format and structure, and it is no longer an equivalent to the stated form (containing all necessary and sufficient conditions). It is a collection of all the necessary conditions and represents a subset of the full semantics.

Please note: the OWLAxiom refset content is currently assigned to the Component Model moduleID, with the OWLOntology refset content being assigned to the Core moduleID. This will be reviewed and standardised in time for the Production release, once the approach is agreed.

A set of documentations have been developed to support the Logic Profile Enhancements. Please see the detail in the following links.

Documentations

OWL Reference sets specification (draft)

Necessary Normal Form for Inferred relationships (draft)

SNOMED CT Logic Profile Specification (draft)

SNOMED CT Logic Profile Enhancements