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201909 Drug Concept Model Development and Deployment

Toni Morrison, SNOMED International (United Kingdom)

Co-authors

1. Farzaneh Ashrafi, SNOMED International

Summary

A concept model was implemented to improve usability and quality of the SNOMED CT Medicinal Product hierarchy. The model is compatible with selected international standards where appropriate. Technical barriers that impeded previous efforts at improving the hierarchy were addressed.

Audience

Clinical, Technical, Implementers, Ontologists, Terminology Developers

Learning Objectives

1. Understand concept model and content changes that resulted in over 20,000 sufficiently defined concepts and the addition of over 90,000 attributes
2. Understand relationship to international standards (e.g. ISO IDMP) and national extension model
3. Highlight implementations that are leveraging the model

Abstract

A concept model has been developed and implemented to improve the usability and quality of the SNOMED CT Medicinal Product hierarchy. Editorial guidance for the modeling and terming of concepts using the new concept model has been documented and existing content has been updated accordingly. The concept model and content are compatible with external standards such as ISO Identification of Medicinal Products (IDMP) where appropriate. Subject matter experts, including external contributors, SNOMED International Advisory Groups, and internal staff, supported this project by providing clinical expertise, technical guidance, validation of existing content, and feedback on preview releases and documentation throughout the project.

The implementation of a concept model provides the following benefits:

1. Positions SNOMED CT to better respond to emerging requirements to extend or modify the concept model or content in the International Release or the concept model in the national extension
2. Improves quality of content by resolving ambiguous or incomplete concepts
3. Enables template-based modeling ensuring consistent modeling and terming of existing and new concepts 4. Addresses technical barriers including concrete domains and universal restrictions that had impeded previous efforts at improving the hierarchy 5. Supports implementers by providing consistent and sufficiently defined concepts and compatibility with selected external standards 6. Provides the opportunity to leverage content from selected members' medicinal product extensions or databases to

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support ongoing maintenance of content in the International Release The project also included significant work in supporting hierarchies such as substances and pharmaceutical dose forms with changes to the concept model, addition of new content, and remodeling of existing content.

Reference Documentation

1. Drug Project: https://confluence.ihtsdotools.org/display/IAP/Reference+Documentation+-+Drug+Model
2. Substance Project:
   https://confluence.ihtsdotools.org/display/IAP/Reference+Documentation+-+Substances