



Singapore Drug Dictionary – Integrating national drug extensions with SNOMED CT

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Audience

National Release Centres and other stakeholders interested in the implementation of a National Drug Dictionary

Objectives

To provide an overview on the process of integrating a drug extension into SNOMED CT, discuss the difficulties and lessons learnt

Abstract

Maintaining a National Drug Dictionary sets both patient safety challenges and ontological difficulties to the National Release Centres. Pharmacists and ontologists have to cooperate to enable the integrated terminology management that is required to implement drug extensions.

Snow Owl—a terminology management tool—has been extended with a profile for pharmacists for aided data entry utilizing Singapore extension SNOMED CT reference sets. An ontology generation process bridges between the raw pharmacy data and the ontological representation. The generated SNOMED CT concepts are fully defined and augmented with special description logic features to ensure that the classification returns valid results even in unusual use cases, like multi-ingredient products.

The generated ontology includes all the semantics necessary to build intensional reference sets that support different clinical use cases like prescribing, dispensing or administration while the semantic query mechanisms that employ the ontological nature of SNOMED CT foster research and decision support on the Drug Dictionary.