



SNOMED CT Cardiology Reference Set Development, Malaysia

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Audience

This paper is targeted to SNOMED CT clinical implementers and content developers; National Release Centre (NRC) of new country members; and Health Managers and Clinicians as the stakeholders.

Objectives

This paper demonstrates the developmental process of the first SNOMED CT Reference Set (refset) development using the National Cardiovascular Disease (NCVD) Registry as the reference; evaluation of tools for the said purpose; established methodology that can be replicated in future refset developments; the approaches and timing in the involvement of the stakeholders for early buy-in; and a strategy for early deliverables of the whole SNOMED CT implementation project in Malaysia.

Abstract

The team established comprised of personnel from Health Informatics Centre (HIC as NRC Malaysia), Knowledge Technology Group (MIMOS) under the purview of Ministry of Science, Technology and Innovation (MOSTI) and stakeholders lead by Head of Cardiology Service Malaysia. Cardiology was chosen because there were early developmental work on SNOMED CT and commitment from the group. The initial refset is based on the NCVD Registry for Acute Coronary Syndrome (ACS) and Percutaneous Coronary Intervention (PCI). A small, focus and an in-depth scope was believed to deliver early result and generates buy-in from other stakeholders, were the lesson learnt from other member countries in October 2012. The intention was to meet the needs of the stakeholders, namely Clinicians and Health Managers, to use SNOMED CT to support Big Data Analytics. Before approaching the clinical domain experts, the team first studied all the available tools which has browsing and/or authoring capabilities, and finally decided on the IHTSDO Workbench. The factors considered include long-term financial implication, costing, and functionality of the tools. The first workshop was held with this tripartite arrangement and with the presence of an IHTSDO staff for guidance. Several sessions followed with the same arrangement to complete the first draft of the refset and was presented to the IHTSDO representatives in September 2013. Lessons learnt includes requirement and understanding of the information model of the subject; and the early tripartite arrangement was proven to be not cost effective to the clinicians as it is very time consuming. Moving forward, NRC Malaysia together with MIMOS prepares the concept model based on the NCVD Registry to identify matching SNOMED CT concept and then presented this to the cardiology group for approval. This was again presented to IHTSDO Head of Content in October 2013. Lesson learnt includes the application of logical model in the refset development and approaches to postcoordination. The final approach was for NRC Malaysia to take charge of deciphering the registry form into proper clinical terminology; laid out the information model; and prepared a colour coded presentation to map the registry's clinical terms to SNOMED CT to represent matching concept, concept for postcoordination, and new concept to be requested to IHTSDO. Reservations on terms, meaning and concepts presented were discussed and clarified with support of IHTSDO Workbench. A consensus was reached and the draft was endorsed. The draft and its methodology was presented to IHTSDO team in April 2014 and approved for further refsets development-. Implementation of Refsets to produce SNOMED CT coded database will provide consistent and accepted representation of clinical meaning, allow reuse of clinical information for



Big Data Analysis to support of evidence-based decision making and planning. Concurrently, MIMOS worked on Proof of Concept (POC) application to use this refset for mapping and coding.

References

1. IHTSDO web page www.ihtsdo.org