

Mapping to SNOMED CT in Sweden – a matter of quality

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Abstract

A key objective of the Swedish IT strategy for health care is to ensure that all health records share a common terminology [1]. The national health organisations in Sweden have decided to use SNOMED CT and a clinical information model in adherence to EN 13606 and openEHR. Mapping clinical data to controlled terminologies is an important step towards achieving standardisation of data [2]. The reliability of SNOMED CT mapping is imperfect [3]. Thus, measures which lead to a high level of semantic agreement between mappers are of great importance when aiming at high quality. We have elaborated guiding principles and rules for the mapping activities and qualification requirements for mappers. An outline of the semantic boundary between the terminology and the clinical information model has been elaborated. Training has been carried out in order to obtain a common attitude to mapping. This poster describes the lessons learned.

Keywords:

SNOMED CT, Semantic mapping, Guiding principles, Clinical information model

Methods

To get a framework for semantic mapping we have used previous experiences of mapping to prepare explicit guiding principles and rules together with qualification requirements for the mappers. The IHTSDO (International Health Terminology Standard Development Organisation) curriculum for training of mappers has served as a model. The connections and the most frequent semantic overlaps between the terminology and the information model have been identified. The guiding principles, which are illustrated with examples, and the qualification requirements constitute a basis for the training of mappers. Group training has been an important tool in the learning process.

Results

The guidelines include the following subjects:

- The meaning of semantic mapping
- A recommended mapping process
- A recommended organisation for mapping
- How to evaluate the results

- The types of post-coordination allowed
- How mapping is influenced by the clinical information model
- How the terminology and the clinical information model interact
- How to decide when mapping is unnecessary because the clinical information model in itself contains the information without help from the terminology

The following specific qualification requirements for mappers have been identified:

- Necessary level of knowledge of SNOMED CT
- Theoretical knowledge of mapping and the process of mapping
- Relevant knowledge of health care

For our training seminars the mappers have been given mapping tasks in advance. During the seminars the participants discuss alternative solutions and try to reach consensus.

Conclusion

Our experience is that mapping is an activity that requires explicit rules for the mapping itself, training of mappers and continuous evaluation of the mapping process in order to obtain high quality. Mappers must have proper knowledge of and a common attitude to mapping. The framework we have developed, together with the practical exercises, constitutes a basis for the training of mappers.

References

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