

Usage of International Nomenclatures and Metathesauruses in Shared Healthcare in the Czech Republic

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Abstract

Using international nomenclatures and metathesauruses for coding of terminology in healthcare is the first and essential step for interoperability of heterogeneous health record systems, which are the keystones for shared medical care leading not only to effectiveness in healthcare but also to financial savings and reduction of patients' stress. This article describes various international nomenclatures and metathesauruses used in healthcare. The main emphasis is put on the *Unified Medical Language System* and mainly on the *UMLS Metathesaurus*, which helps us mostly in mapping of the professional healthcare terminology. In our work we try to verify practical applicability of internationally used terminological dictionaries, thesauruses, ontologies, and classifications in attributes of the *Minimal Data Model for Cardiology*, in the *Data Standard of Ministry of Health of the Czech Republic*, and in several chosen modules of commercial hospital information systems. The article describes problems appearing during the mapping process and it outlines their solutions.

Keywords: metathesaurus, ontology, classification, nomenclature, electronic health record