

## An Information Science eye at terms in GP guidelines

*The MERITERM research group*

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### Abstract

#### Objective

GP, pharmacologist, linguist, IT specialist and knowledge engineer are involved in the Belgian MERITERM research group which traces its way from legacy nomenclatures, terminologies, classifications, lexicons, ontologies, to a well organised role distribution between them in the era of the semantic web. The present work focuses on the analyses of the semantic content of a Belgian guideline about Heart Failure recently edited in Belgium by SSMG and DOMUS MEDICA

#### Method

identification in the text of the concepts dealing with heart failure clinical domain and study of those concepts using ICPC, ICD, SNOMED-CT & UMLS through 5 browsers

1. ICPC-2e-v.4.1 16. May 2011 as downloadable on the Norwegian Competence Center for IT in Health Care (KITH) [http://www.kith.no/templates/kith\\_WebPage\\_1062.aspx](http://www.kith.no/templates/kith_WebPage_1062.aspx)
2. Browser - 1-ICPC-2e (en) v4.2beta accessible through the web page of the WHO Collaborating Centre for the Family of International Classifications (FIC) in the Netherlands. <http://icpc.who-fic.nl/browser.aspx> (web site of the WICC ICPC update group) which allows to find the correct transcoding code to ICD-10
3. ICD online browser World Health Organization. ICD-10 Version: 2010. International Statistical Classification of Diseases and Related Health Problems 10th Revision. accessible through <http://apps.who.int/classifications/icd10/browse/2010/en>
4. SNOMED CT Browser of the UMLS Terminology Services, a service of the U.S. National Library of Medicine | National Institutes of Health <https://uts.nlm.nih.gov//snomedctBrowser.html> allowing to find the corresponding meaning in SNOMED-CT 2011
5. Metathesaurus Browser of the UMLS Terminology Services, a service of the U.S. National Library of Medicine | National Institutes of Health <https://uts.nlm.nih.gov//metathesaurus.html> allowing to find the correspondence between the SNOMED-CT concept and the Concept Unique identifier of UMLS (linked to the SNOMED-CT browser)

#### Results:

173 concepts were identified and mapped with ICPC and ICD. Their correspondences to SNOMED-CT and UMLS, found in SNOMED-CT browser on the UMLS website were reported in an Excel spreadsheet for comparative analysis of concepts studied. An exploration of the available literature in the field of guidelines and infonomics helped the elaboration of the methodology and the implementation. A report has been edited.

#### Discussion:

We show that the semantic content of the guideline is very marked by the authors world of reference who use consensual but imprecise concepts from terminological point of view.

Narrative style used for the recommendation is not easily transcript to a formal writing required for interaction with the EMR

The studied guideline is designed on the model of disease management and not patient centered and ignores the multimorbidity and thus the complexity of decision making in general practice

International classifications and terminologies used in the analysis differ considerably in their interpretation and vision of the medical reality, reflecting the non-neutral and the historicity of their content.

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