

A Systematic Comparison of the Austrian Procedure Catalogue and the Classification Commune des Actes Médicaux

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1. Introduction

Within the framework of performance-oriented hospital financing, Austria has constructed its own country-specific procedure catalogue [1]. There is no internationally accepted standard available for coding procedures in a uniform way [2].

This poster presents a systematic comparison of the Austrian procedure catalogue (OELK) in the version of 2010 with its French counterpart, the multiaxial Classification Commune des Actes Médicaux (CCAM) [3] Version V0^{bis}. The main objective is to identify strengths and weaknesses of the multiaxial OELK and to present suggestions for improvement.

2. Methods

The OELK and CCAM were analyzed and compared with special regard to their multiaxial architectures and basic coding systems. A mapping of OELK classes to CCAM was carried out. Therefore we searched for matching concepts for specific OELK procedures in all corresponding CCAM axes. We limited ourselves to strict 1:1-mappings. For example the OELK procedure *Paracentesis* was mapped to the Anatomical site *Middle ear*, Action *Cut* and Access mode *Open Access* of CCAM. Often partial mappings were carried out, which means that it was not possible for a specific OELK procedure to identify corresponding concepts within all three axes of CCAM.

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3. Results

Both procedure catalogues are assimilable concerning their architecture and offer three independent axes for arranging procedures. Concepts of the axes of both approaches are comparable in number and content with the exception of the procedural type axes. It offers 5 (OELK) respectively 41 (CCAM) different concepts.

Both systems offer multiaxial triples built by the axes codes to assign specific procedure codes to. CCAM procedure codes themselves contain the whole multiaxial triple followed by a three-digit number (7-digit code) while OELK codes only reflect the anatomical site (5-digit code).

Table 1. Mapping results. "+": Mapping possible "-": Mapping not possible

	Anatomical site	Action	Access Mode	# of OELK classes	% of OELK classes
Combinations	+	+	+	1084	71 %
	+	-	-	54	4 %
	+	+	-	0	0 %
	+	-	+	47	3 %
	-	+	-	0	0 %
	-	-	+	304	20 %
	-	+	+	25	2 %
	-	-	-	3	0 %
			1517	100 %	

As presented in Table 1 in 71 % (n=1084) of the cases full 1:1-mappings were possible. 29 % of the mappings (n=430) were partial mappings to one or two CCAM axes. Only for 3 OELK procedures neither an Anatomical site nor an Action or Access Mode of the CCAM were found. For 1460 (96 %) of the OELK procedures a corresponding concept within the Access mode axis was identified.

4. Discussion

The comparison of the OELK and the French CCAM shows numerous similarities, especially the multiaxial architecture. Nevertheless the Action axis of the CCAM is more elaborate than its counterpart in the OELK. It offers a meaningful and intuitive way to arrange procedural types. Due to the high similarities between the OELK and the CCAM the mapping was easy to carry out with the exception of the procedural type axes. For further improving the OELK we recommend to revise the procedural type axis and to build additional axes (e.g. devices, functions) to avoid ambiguities. The content should be adapted, extended and standardized vocabulary be used. Also a formal description based on ontological principles is suggested.

References

- [1] Ministry of Health. *Performance-oriented hospital financing – LKF- Procedure Catalogue* BMG 2010, available from : <http://apps.who.int/classifications/apps/icd/icd10online/>. Last accessed: 28.01.2011
- [2] Hanser S, Zaiss A, Schulz S. Health care procedures. *Methods Inf Med.* 2009;48(6):540-545.
- [3] Trombert-Pavio B, Rector A, Baud R, et al. The development of CCAM: the new French coding system of clinical procedures. *HIM J.* 2003;31(1):1-11.