

Going to an New Procedure Classification System What is the Right Way?

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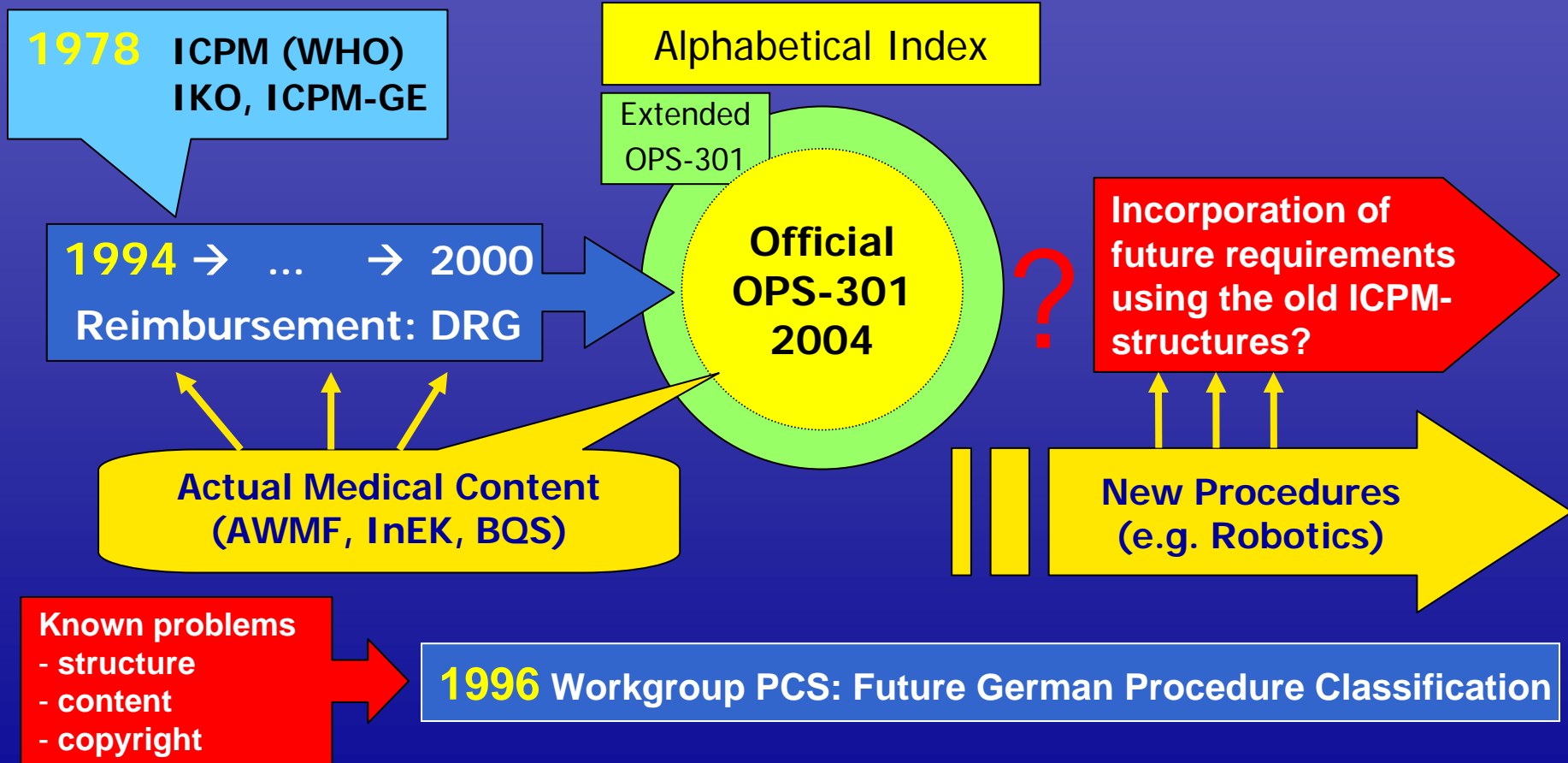
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* This Work was supported by the German National Board for Classification in Health Care (Kuratorium für Fragen der Klassifikation im Gesundheitswesen (KKG))

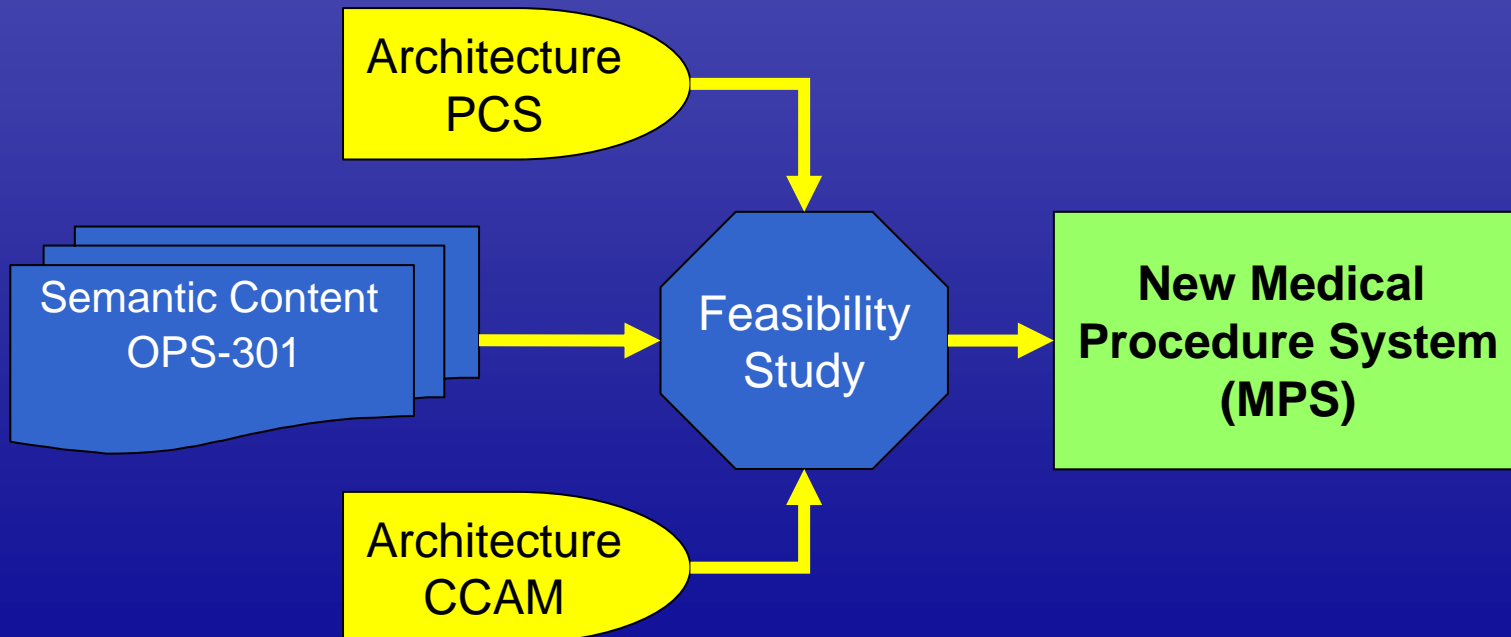
German Procedure Classification OPS-301

Yesterday – Today – Tomorrow



Feasibility Study (2002)

- Evaluation of the possibility to
 - keep the well proven semantic content of **each** OPS-301 code and restructure the complete coding system according to the architecture of ICD-10-PCS and/or CCAM.



Feasibility Study (2002)

- Issues
 - Can the content of each OPS-Code be represented using the new classification structures?
 - What is the granularity?
 - Is a 1:1 mapping possible to facilitate migration?
 - What are the advantages of this approach?
- Is this a good way to an new Medical Procedure Coding System (MPS)?

Materials of the Study

- OPS-301
 - ICPM based, mono-axial
 - 4- to 6-digit (alpha-)numeric code
 - very different semantic information of the 5th and 6th digits
- CCAM
 - multiaxial 4-digit component, 3-digit enumeration
 - controlled vocabulary for the axis tables and the procedure descriptions
 - based on results of the GALEN-Project
- PCS
 - multiaxial, 7-digit code
 - controlled vocabulary for the axis tables

Example OPS → PCS, CCAM

OPS-301
5-455.41

Partielle Resektion des Dickdarmes,
Hemikolektomie rechts,
Offen chirurgisch mit Anastomose

PCS-Axis

O Konservativ und Operativ
D Gastrointestinales System
B Exzision
F Dickdarm, rechts
O Offen
Z Ohne Hilfsmittel
Z Ohne nähere Beschreibung

CCAM-Axis

H Gastrointestinales System
H Kolon und Appendix
F Exzision
A Offen

CCAM-Title

HHFA009 Hemikolektomie rechts
mit Anastomose
durch Laparotomie

CCAM-Hierarchy

07.03.06.10
07 Verdauungssystem
.03 Therapeutische Maßnahmen
.06 Kolon
.10 Kolektomie

**Retranslating
code into text**

Stages of the Study, Phase I

- 613 OPS-Codes
 - 350 frequently used codes
 - all 263 codes concerning the urinary bladder
- Semantic analysis of all titles
 - Axes: section, intervention, anatomical site, approach, device, miscellaneous
 - Granularity: coarse, fine, in detail
- Mapping to the corresponding PCS/CCAM axes
- Assessment of the mapping granularity
 - Axes: intervention, anatomical site, approach
 - Granularity: coarser, equivalent, finer, not comparable
- Discussion of the results

See our Poster outside

- After this phase there was the decision to proceed with the **CCAM architecture**

Stages of the Study, Phase II

- Pilot version of the Medical Procedure System (MPS) based on the architecture of CCAM
 - CCAM basis components are
 - Tabular list
 - User Guide with
 - Coding System Tables
 - Editorial standards
 - Coding standards
- Translation of the coding tables and parts of the user guide
- Adaptation of the coding tables
- Restructuring of the OPS-titles according to the CCAM rules
- Definition of the code structures with 1:1-mapping
- Building a database

Definition of the MPS Code Structure

CCAM-Format (e.g. ABCA002)

X	X	X	X	#	#	#
Multi-axial Subcode				Enumeration		

OPS-301 is usually finer than CCAM

MPS-Format (e.g. ABCA002.01)

X	X	X	X	#	#	#	.	#	#
Multi-axial Subcode				Enumeration			Numerical Extension		

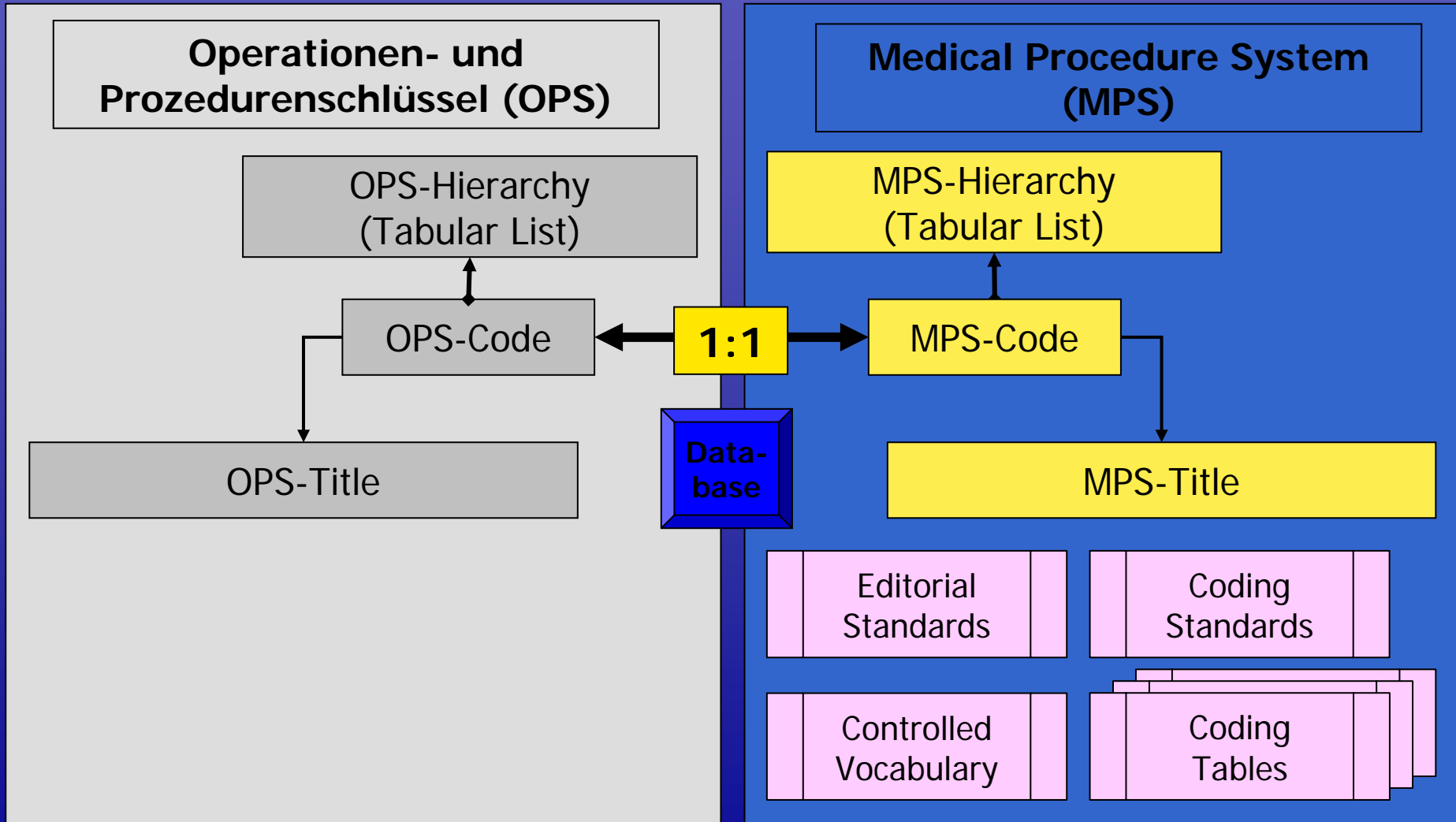
8.000 codes for administrative purposes

22.000 codes for medical documentation purposes

MPS Code Structure: Examples

- **OPS identical with CCAM**
 - MPS-Code = CCAM-Code_“.01”
DZEA002.01
- **OPS finer than CCAM**
 - MPS-Code = (broader) CCAM-Code_“Enumeration”
 - ABCA002.01
Ableitung des Liquor cerebrospinalis, **ventrikuloperitoneal**, ...
 - ABCA002.02
Ableitung des Liquor cerebrospinalis, **ventrikuloatrial**, ...
- **OPS no mapping to CCAM**
 - MPS-Code = New Code_“.01” (x = new MPS-Basiscode)
EEQHx01.01

Pilot Version MPS



Conclusions #1

- CCAM architecture fits better than ICD-10-PCS the German requirements
 - ICD-10-PCS is not „Physician friendly“
- MPS uses the multi-axial framework of CCAM
- The content of each nearly OPS-code can be mapped to an unique MPS-code by a 1:1 mapping
- MPS has a better structure than OPS
- MPS facilitates statistical analyses
- **Nowadays there is a recommendation to go this way in Germany but no decision to do so!**

Further Conclusions

- First do the definitions, then think about mapping and then build the classification
- The proposed method can be used for every existing Procedure Classification in Europe
 - Map them in the same way to one structure
- This could also be a way to a future European Procedure Classification
 - First Step: Common structure
 - Second Step: Common structure and content