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# The Q-Codes: Metadata, Research data, and Desiderata, Oh My! Improving Access to Grey Literature

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## Indexing grey multilingual literature in General Practice in the era of Semantic Web

The association of ICPC, in its three components Symptoms, Procedures and Diagnostics, with the Q-Codes forms an indexing system. This system therefore covers clinical and contextual elements specific to General Practice and Family Medicine. This system allows us to identify patients' symptoms and complaints, diagnosis or disease hypotheses, processes used by physicians, either by themselves or by third parties, and, finally, the context of application given by Q-Codes. The Q-Codes represent a form of controlled medical, multipurpose vocabulary that is subject to further additions. As stated by Cimino the unit of symbolic processing is the concept - an embodiment of a particular meaning

Q-Codes can be seen as a medical subject authority list, including medical subject headings, a comprehensive series of mutually exclusive terms. According to guidelines set by Cimino, we have tried to gather a set of non-redundant, shareable, multipurpose, high-quality permanent concepts, in a mono-hierarchic organization, identified by a set of definitions and linked to existing terminologies. This study proposes a system of Knowledge Management (KM) in GP/FM which could potentially fill a major gap in KM of GP/FM. Conceived as a lightweight, multilingual ontology that is fit for new Internet technologies, NLP, and Semantic Web, 3CGP gives the opportunity to unravel GP/FM productivity and establish GP/FM as a professional discipline aiming at an extended range of specific knowledge.



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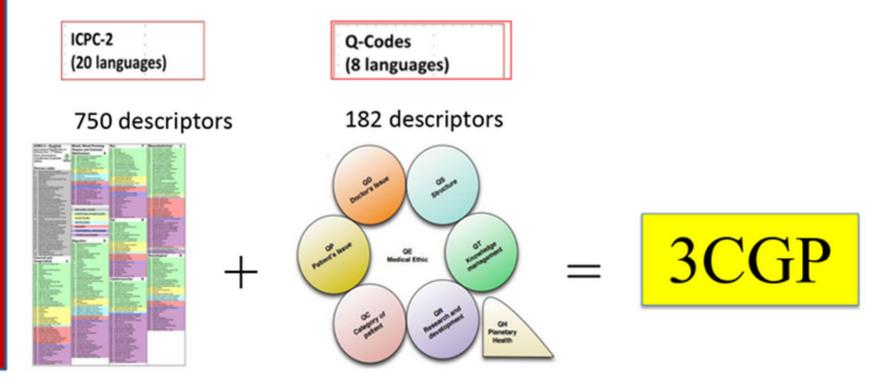
Marc Jamoulle, MD, PhD (Belgium)



ICPC-2 + Q-Codes = 3CGP

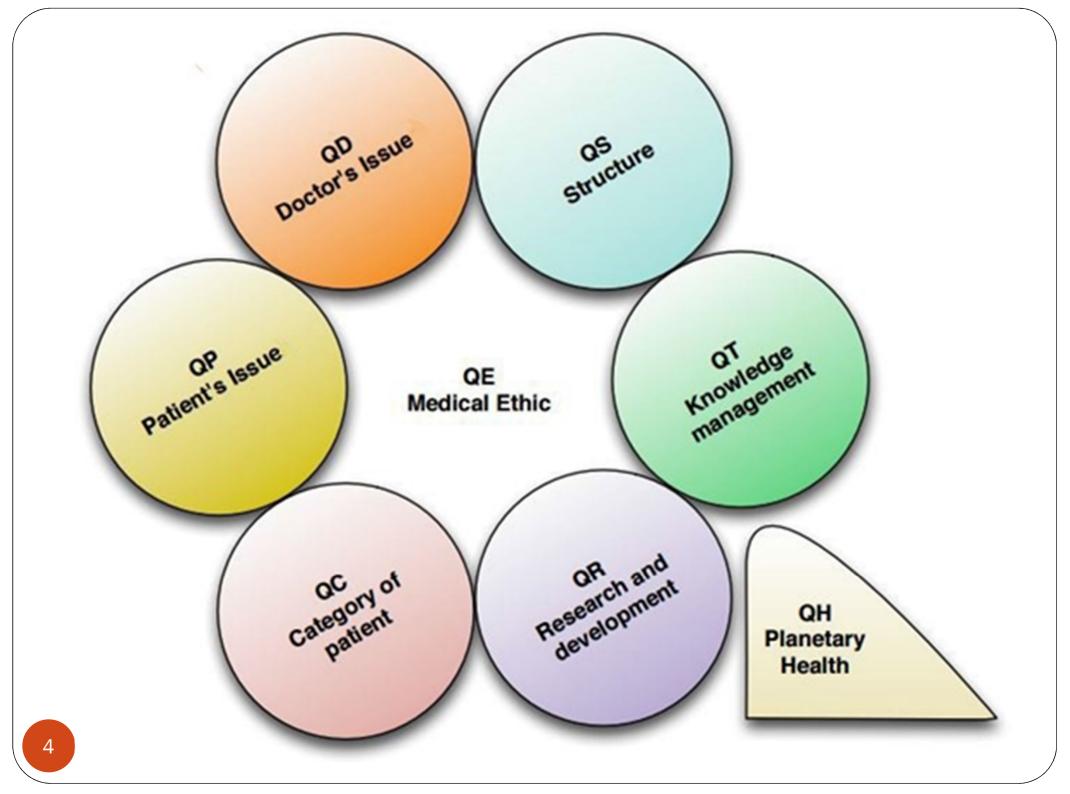
The International Classification of Primary Care (ICPC) for indexing clinical conditions, with adjonction of Q-Codes, becomes the

Core Content Classification of General Practice / Family Medicine



http://www.ph3c.org

http://3cgp.docpatient.net/



### Domain

Knowledge Management QT

Categories
Training QT4

Sub categories

Trainers & Supervisors QT43



#### NIH Public Access

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#### Desiderata for Controlled Medical Vocabularies in the Twenty-First Century

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#### Abstract

Builders of medical informatics applications need controlled medical vocabularies to support their applications and it is to their advantage to use available standards. In order to do so, however, these standards need to address the requirements of their intended users. Over the past decade, medical informatics researchers have begun to articulate some of these requirements. This paper brings together some of the common themes which have been described, including: vocabulary content, concept orientation, concept permanence, nonsemantic concept identifiers, polyhierarchy, formal definitions, rejection of "not elsewhere classified" terms, multiple granularities, multiple consistent views, context representation, graceful evolution, and recognized redundancy. Standards developers are beginning to recognize and address these desiderata and adapt their offerings to meet them.



Controlled Medical Terminology; Vocabulary; Standards; Review



## AIM & METHODOLOGY

AIM

 To evaluate the Q-Codes against the 12 desiderata proposed by Cimino METHODOLOGY

 We compared the current version of the Q-Codes (version 2.5) against each desideratum

## DESIDERATA

- Content
- ConceptOrientation
- ConceptPermanence
- Non-SemanticConcept Identifier
- Polyhierarchy
- Formal Definitions

- Reject "Not Elsewhere Classified"
- Multiple Granularities
- Multiple Consistent Views
- Representing Context
- Graceful Evolution
- Recognizing Redundancy

# CONCLUSIONS

- The Q-Codes meet 11 of the 12 desiderata
- Indicates that improvements can be made to the Q-Codes and 3CGP
- The potentially improved Q-Codes & 3CGP will improve the ability to index Grey Literature
- Indexing decreases loss of Grey Literature



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