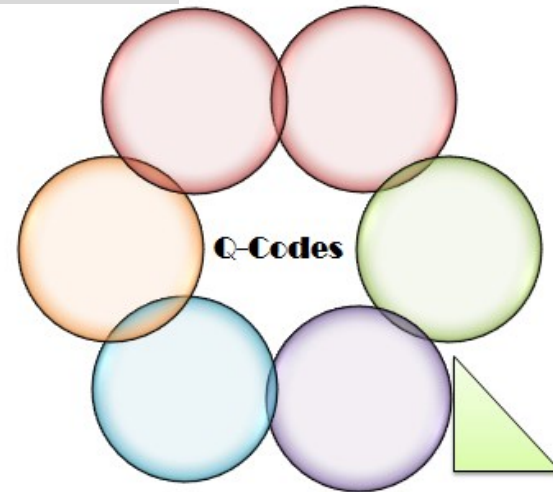




www.sftg.net

Société de Formation
Thérapeutique du Généraliste

5^{ème} journée Recherche le 30 janvier 2016



- Marc Jamoulle
- Médecin de famille,
- Spécialiste en gestion de données de santé
- Membre du WICC

Une table des matières pour la médecine générale?

Collaboration

- Dep Med Generale Université de Liege. Prof Vanmeerbeek
- Haute Ecole de Commerce Université de Liege. Prof Ittoo
- LITIS Université de Rouen. Prof. Darmoni



marc.jamoulle@doct.ulg.ac.be



Je ne parle ici que des Q-Codes

- En réalité le projet s'appelle 3CGP (pour Core Content Classification in GP/FM)
- Il s'agit de l'assemblage de ICPC (CISP) et des Q-Codes
- La CISP pour la clinique
- Les Q-Codes pour l'organisation du métier
- Voir <http://docpatient.net/3CGP>

Une table des matières pour la médecine générale?

- Il existe des définitions consensuelles de la médecine générale et de famille ou des soins de santé primaires
- Il existe d'innombrables textbooks en GP/FM
 - ❖ Ils contiennent tous des items cliniques
 - ❖ Et des items non cliniques
 - ❖ Ils sont tous différents
- Wonca Europe a 20.000 abstracts en ligne
 - ❖ Sans système d'indexation

Ma recherche a deux axes en interaction

- Terminologique
- Identification des concepts discutés par les MGs
- Etablissement d'une fiche terminologique dont les relations sont identifiées
- Taxonomie
- Humain > Machine
- www.hetop.eu



- Sémantique
- Organisation de ces concepts dans une base sémantique
- Dont l'écriture informatique sous jacente est compatible avec le web sémantique
- Ontologie
- Machine > Machine > Humain
- Information distribuée
- www.linkeddata.org

Premier phase : création d'une taxinomie

- J'ai analysé le contenu de 1600 abstracts de médecine de famille
- Progressivement de 2007 à 2015
- Il s'agit en fait d'analyse qualitative qui permet d'identifier les concepts et de faire du **Manual Indexing**
- Dans le monde informatique cette façon de faire porte le nom de **Text Classification** mais aussi de **Named Entity Recognition and classification (NERC)** et d'autres encore
- Actuellement ce sont des machines qui font ça par NLP sur base d'Ontologies

Complétés par

[Fam Pract.](#) 2010

Aug;27(4):459-67. doi:

10.1093/fampra/cmq023.

Epub 2010 Apr 27.

**Themes and methods of
research presented at
European General Practice
Research Network
conferences.**

[Kruschinski C](#)¹, [Lange M](#), [Lionis C](#), [van Weel C](#), [Hummers-Pradier E](#); [EGPRN](#).

Etude de 614 résumés

Méthodo tres similaire

[-] QR research

QR1 science philosophy

[-] QR2 epidemiology of primary care

QR21 pharmacoepidemiology

QR22 community-based study

[-] QR3 research method

QR31 qualitative study

[-] QR32 quantitative study

QR321 case-control study

QR322 cohort study

QR323 cross-sectional study

QR325 intervention study

QR33 mixed study

QR34 validation study

QR35 action research

QR36 case report

QR4 research network

[-] QR5 research tools

QR51 taxonomy

QR52 scale

QR53 functional status

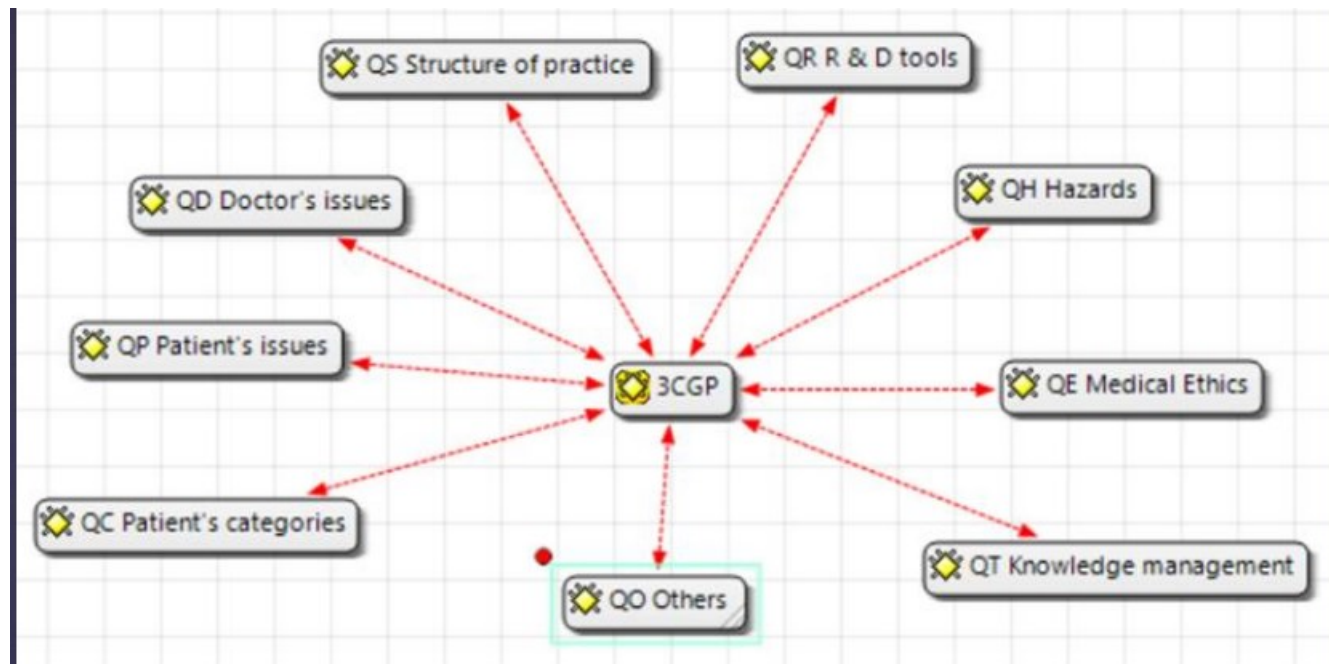
QR54 observation material

QR6 expert advice

QR7 economics, primary health care

Moi, j'ai voulu voir le contenu de mon métier

- J'ai repéré à ce jour 186 concepts
- Evidemment il y en a qui manquent
- Je les ai ordonné en 8 catégories et un catégorie « autre »
- Ils sont disponibles en 7 langues ; en / fr / es / pt / nl / vn / tr



Vue dans HETOP

Q Q-codes (Q-code)

[-] Q Q-codes

+ QC patient's category

+ QD family doctor's issue

+ QE medical ethics

+ QH planetary health

+ QO other

+ QP patient issue

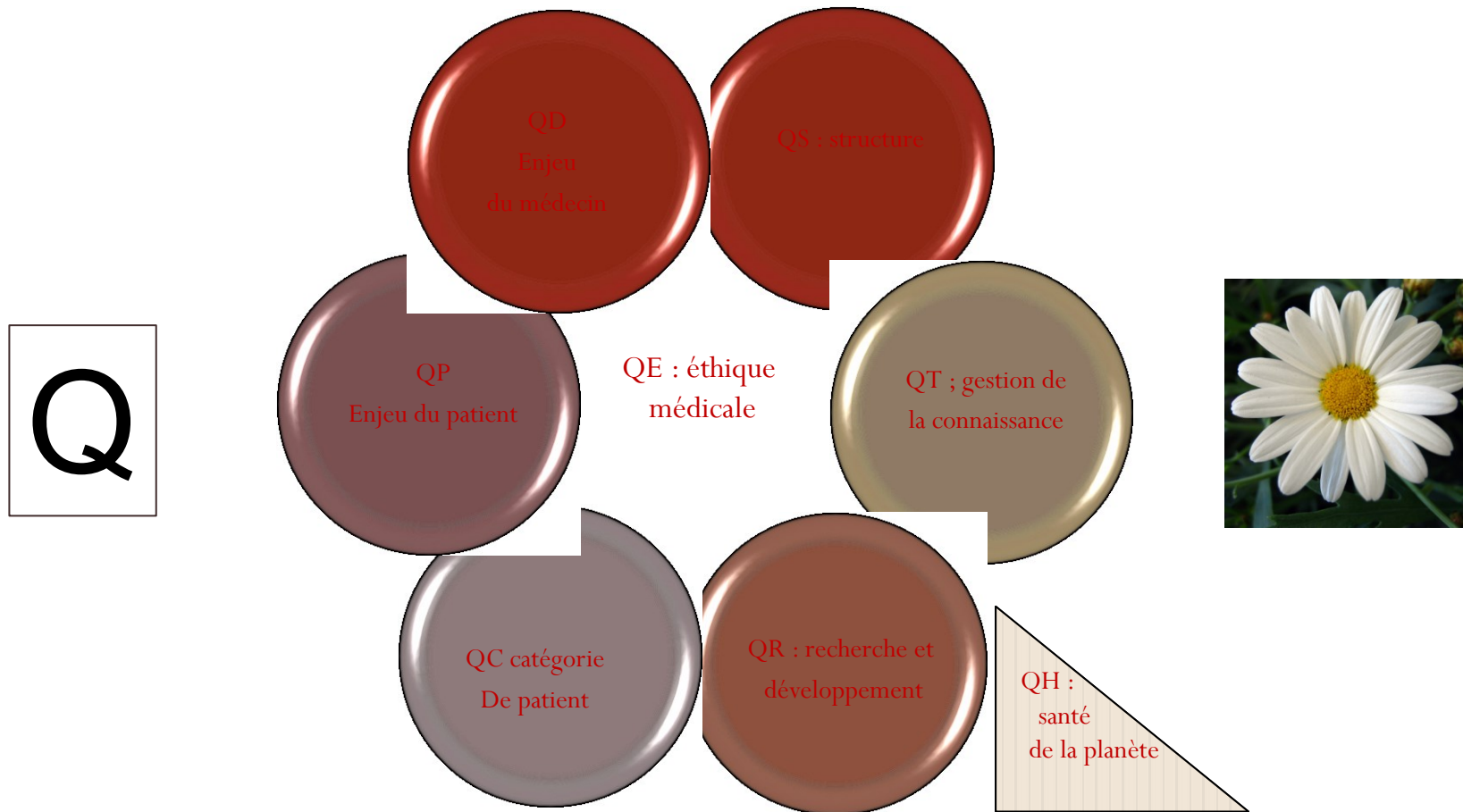
+ QR research

+ QS structure of practice

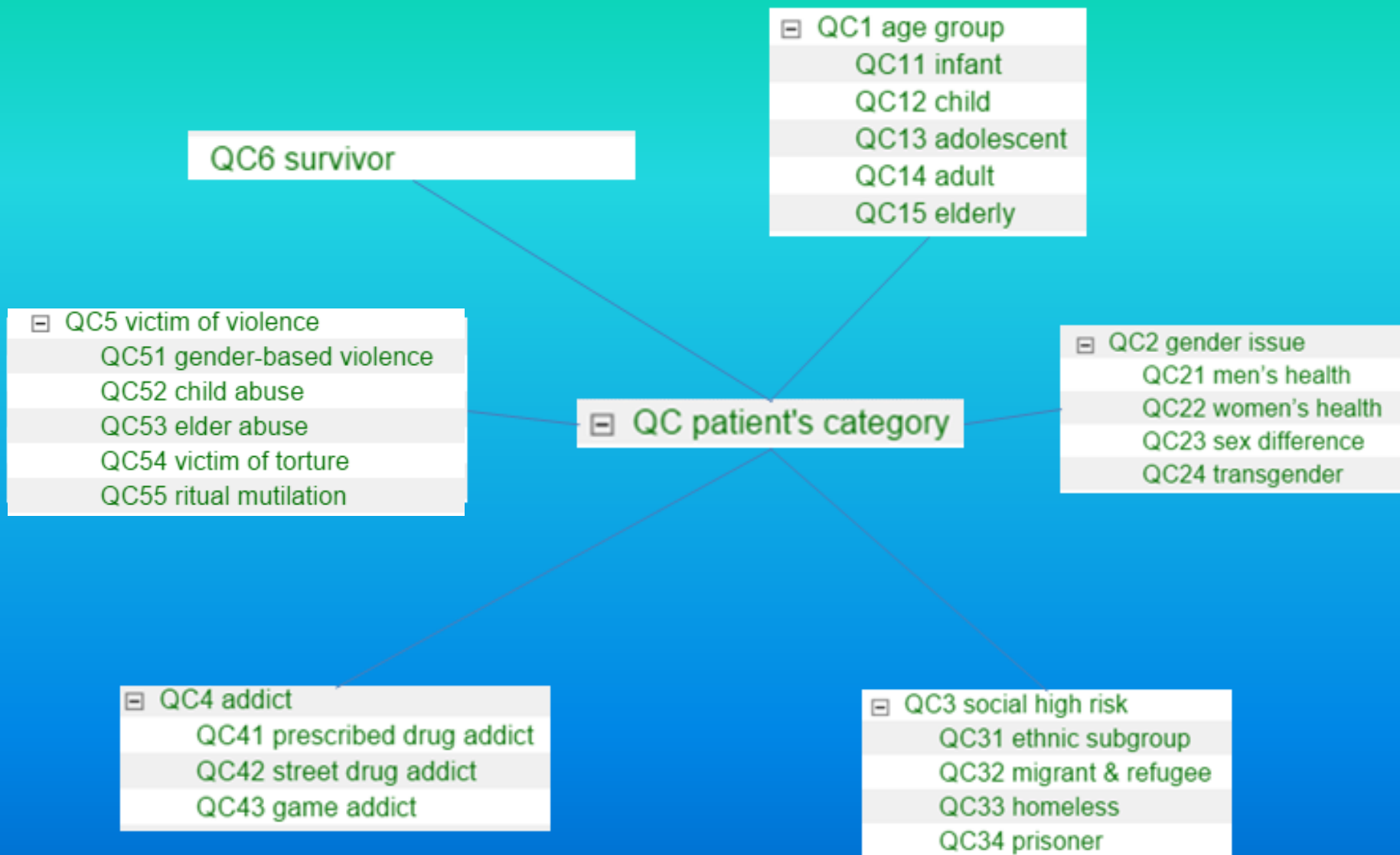
+ QT knowledge management in health care

Q-Codes sous forme matricielle

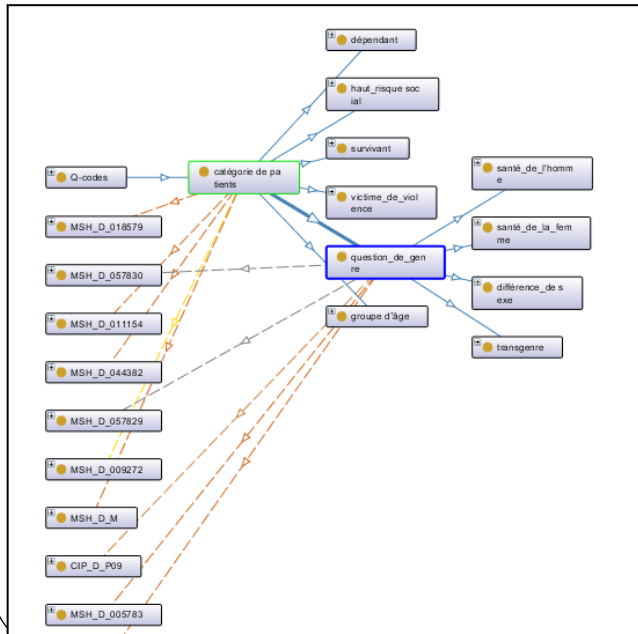
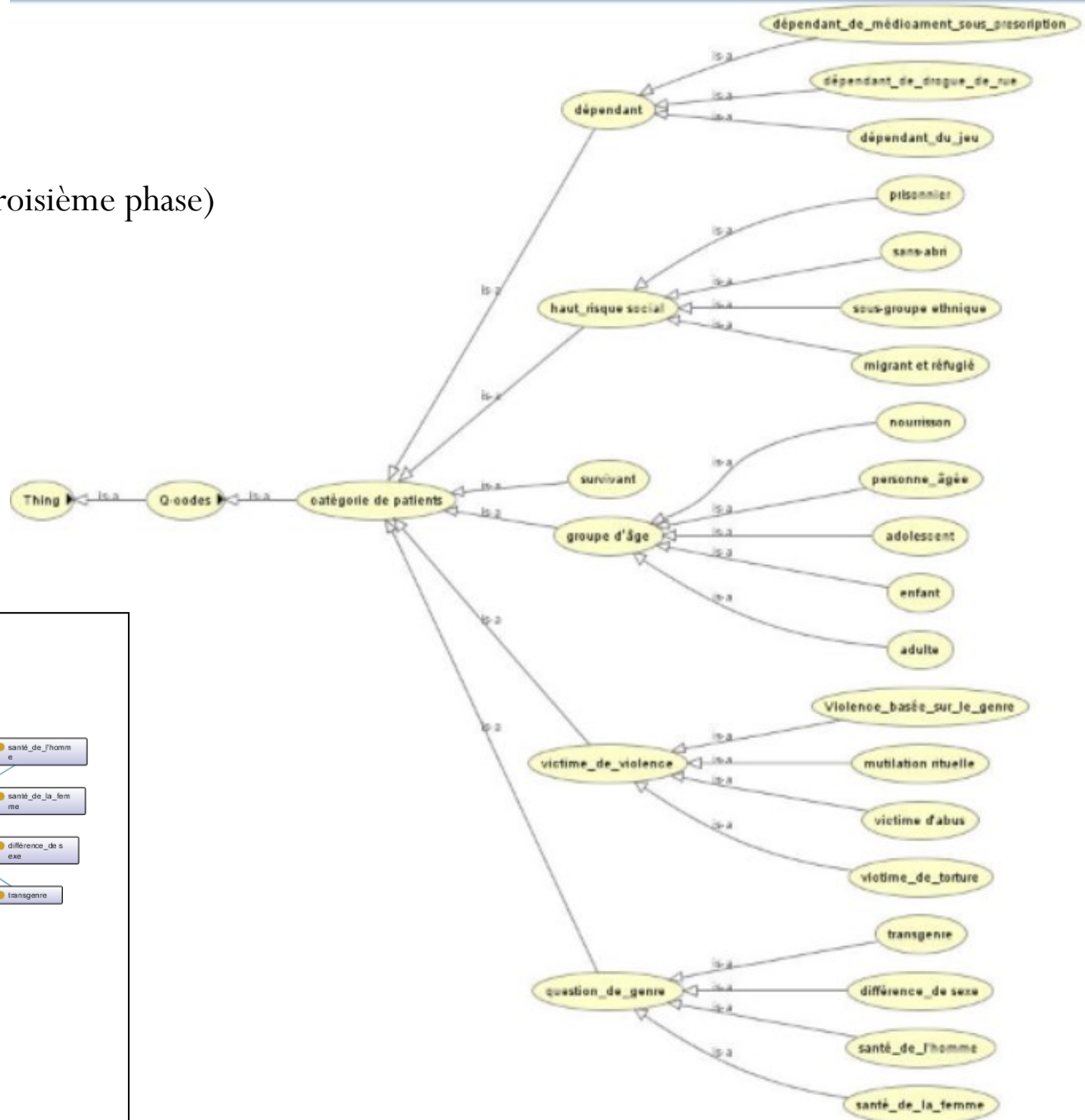
Contenu organisationnel de la Médecine générale / Médecin de Famille



Les Q-Codes sont représentés ici sous forme matricielle sous la forme d'une lettre Q. A gauche les domaines des personnes, a droite, structure, enseignement, recherche. L'éthique médicale au centre, comme il se doit. La queue du Q représente les risques environnementaux, qui sont en réalité sur tout l'arrière plan.



Vue dans Protégé
(Préparation de la Troisième phase)



Deuxième phase ; étude du contenu de chaque catégorie

Création d'une base de données de connaissance (KB ou Knowledge base) spécifique des aspects organisationnels de la médecine de famille

Étapes du travail

1. Interface d'édition sur HETOP (www.hetop.eu)
2. Interface graphique d'élaboration DBGUI
3. Détermination de la position dans la taxinomie
4. Choix du terme préféré
5. Expression en 5 langues
6. Définition congruente avec la médecine de famille
7. Terme d'entrées supplémentaires
8. Recherche de contenu conceptuel dans termino en ligne
9. Mise en relation possible avec les terminologies Hetop par système automatique et semi-automatique
10. Identification des MeSH (if any)
11. Recherche d'articles biblio Full Free Access
12. Recherche de correspondances sur Babelnet et Dbpedia
 - Un an de travail
 - Actuellement en révision
 - Projet de lier à DeCS (une autre histoire)

Elaboration du Q-Code QT51 sur l'interface DBGUI

Edit Display Options
 New Apply Apply and close Undo Previous 1 / 2 Next Notice courte Notice longue

Origin ID	QR3
Preferred Label	research method en
	métodos de investigación es
	méthodes de recherche fr
	onderzoeksmethode nl
	método de pesquisa pt
Category label	Research methods in family medicine en
	Métodos de investigación en medicina familiar es
	Méthodes de recherche en médecine de famille fr
	Onderzoeksmethoden in de huisartsgeneeskunde nl
	Métodos de pesquisa em medicina de família pt
CISMeF synonym	
UMLS CUI	
Q-Code entry term	epidemiologic research design en
	research design en
	research method in primary care en
	research methods en
CISMeF acronym	
Q-Code acronym	
Q-Code definition	specific set of methods to test the effectiveness of diagnostic and therapeutic interventions under prevailing primary care conditions, including qualitative approaches, longitudinal studies and intervention studies (adapted from Kruschinski et al. EGPRN 2010) en
	EXPERIMENT a controlled study where the investigator changes one or more conditions and records the effect. (Woncadic) en
	FEASIBILITY STUDY a preliminary study performed to determine en

Résultat de ce travail sur HETOP

Description Hierarchies Relations PubMed / Doi/Ci/MeF

QR3 research method (Q-code)

Resource consulted 45 times [See all languages](#)

Origin ID
QR3

Preferred Label
research method

Category label
Research methods in family medicine

Q-Code entry term
epidemiologic research design research design research method in primary care research methods

Q-Code definition
specific set of methods to test the effectiveness of diagnostic and therapeutic interventions under prevailing primary care conditions, including qualitative approaches, longitudinal studies and intervention studies (adapted from Kruchinski et al. EGPRN 2010)

Q-Code conceptual content

- EXPERIMENT a controlled study where the investigator changes one or more conditions and records the effect. (Wioncadic)
- MATCHING in research the deliberate process of making a study group and comparison group comparable with respect to factors that are extraneous to the purpose of the investigation, but that might interfere with the interpretation of the findings of the study (e.g. in case control studies, individual cases might be matched or paired with a specific control on the basis of comparable age, gender, clinical features, or a combination). (Wioncadic)
- NON-PARTICIPANTS, NON-RESPONDERS members of a population or a study group who do not take part in an activity or study designed to include them. (Wioncadic)
- Questionable research practices (QRPs): research practices that are regarded by many as unethical but are not considered to be research misconduct. Duplicate publication and Honorary authorship are considered by many to be QRPs (RIES)
- SURVEY ; observational or descriptive, non-experimental study in which individuals are systematically examined for the absence or presence (or degree of presence) of characteristics of interest. (Wioncadic)
- FEASIBILITY STUDY a preliminary study performed to determine the practicability of a larger study or health program. (Wioncadic)
- METHOD : In research, the way a research project is performed and procedures defined, described as accurately as possible. (Wioncadic)
- Patient Selection Criteria and standards used for the determination of the appropriateness of the inclusion of patients with specific conditions in proposed treatment plans and the criteria used for the inclusion of subjects in various clinical trials and other research protocols.(MeSH)
- Research Design ; A plan for collecting and utilizing data so that desired information can be obtained with sufficient precision or so that an hypothesis can be tested properly.(MeSH)
- VALIDITY STUDY the degree to which the inference drawn from a study, especially generalizations extending beyond the study sample, are warranted when account is taken of the study methods, the representativeness of the study sample, and the nature of the population from which it is drawn. (Wioncadic)
- BLIND(ED) STUDY a study or experiment in which the observers and/or subjects do not know if the subjects belong to an intervention group or a control group. In a single blind study only the experimenter knows the allocation. In a double blind study the allocation is not known either to the observer or the subject. If the analyst does not know the allocation the study is triple blinded. Blinding is made to avoid bias. (Wioncadic)
- METHOD . 2. In research, the way a research project is performed and procedures defined, described as accurately as possible. (Wioncadic)
- PILOT STUDY a small study or project, usually of a convenience sample, to test preliminary measurement decisions and identify unanticipated problems in applying a special method in a study. (Wioncadic)
- RESEARCH DESIGN the format, including aims and methods, of a planned research (Wioncadic)
- EXPERIMENTAL STUDY a study where all the cond investigator. In general practice it often refers to a st environmental factors are changed, and the effect c (Wioncadic)
- NON-EXPERIMENTAL STUDY a study of phenome influence of one or more variables is measured on o naturally occur. (Wioncadic)
- PURPOSEFUL SAMPLING (Syn. strategic sampling, t intended to increase the validity of qualitative resear selecting pre-established groups in the population fo statistical representation or allow for generalizations.
- STANDARDIZATION recalculation or weighting of di distributions between groups or classes like age or g two different ways: 1. Direct method: The specific ra averaged, using as weights the distribution of a spe direct standardized rate represents what the crude r study population if they had been equally distributed which the population is standardized. 2. Indirect met populations where the specific rates are unknown o the standard population are averaged, using as wei study population. (Wioncadic)

Bibliographic link

<http://www.ncbi.nlm.nih.gov/pubmed/12236280> <http://www.ncbi.nlm.nih.gov/pubmed/20144125> <http://www.ncbi.nlm.nih.gov/pubmed/20427325> <http://www.ncbi.nlm.nih.gov/pubmed/21344983>

<http://www.psc.ir/umich.edu/cis/info/serv/ftp/pub/pdf/GuideSelectingStatisticalTechniques> http://www.nyfonrining.dk/sites/default/files/files/articles/fo/ink_Cosmin.pdf

BabelNet link
<bn:00067280n>

Dbpedia link
<http://dbpedia.org/page/Research>

HeTOP

1 matches in 0,57 s ★★★★★

Terminologies selection

Your queries (1)

Views history (2)

Results

[-] Q-Codes (1)

[-] Q-code (1)

..> **Q Q-codes**

Description **Hierarchies** Relations Pub

Q Q-codes (Q-code)

[-] **Q Q-codes**

- + QC patient's category
- + QD family doctor's issue
- + QE medical ethics
- + QH ecological hazard
- + QO other
- + QP patient issue
- + QR research & development
- + QS structure of practice
- + QT knowledge management in health care

Q Q-codes (Q-code)

Q Q-codes

QC patient's category

QC1 age group

QC2 gender issue

QC3 social high risk

QC4 addict

QC5 victim of violence

QC6 survivor

QD family doctor's issue

QD1 communicator

QD2 doctor as carer

QD3 care manager

QD31 health risk management

QD32 health issue management

QD33 health status assessment

QD34 multimorbidity

QD35 genetic issues

QD4 clinical prevention

QD5 complementary medicine

QD6 medico legal issue

QD7 professional image & identity

QD8 health provider personal life

QE medical ethics

QH ecological hazard

QO other

QP patient issue

QR research & development

QS structure of practice

QT knowledge management in health care

Voyons un exemple



multimorbidity



multimorbilidad



multimorbidité



multimorbiditeit



multimorbidade

QD34 multimorbidity (Q-code)

Resource consulted 31 times

See all languages



Origin ID

QD34

Preferred Label


 multimorbidity


3-CGP entry term


 multi-morbidity

 polymorbidity

3-CGP conceptual content

 COMORBIDITY other diseases or health problems in addition to that being studied or dealt with.(Woncadic)

 Multimorbidity : is defined as any combination of chronic disease with at least one other disease (acute or chronic) or biopsychosocial factor (associated or not) or somatic risk factor. Any biopsychosocial factor, any risk factor, the social network, the burden of diseases, the health care consumption, and the patient's coping strategies may function as modifiers (of the effects of multimorbidity). Multimorbidity may modify the health outcomes and lead to an increased disability or a decreased quality of life or frailty.(Le Reste et al 2013)

 Multimorbidity ; The co-existence of two or more chronic conditions, where one is not necessarily more central than the others (Boyd & all 2010)

Référence bibliographique

<http://bjgp.org/content/bjgp/24/141/251.full.pdf>

<http://www.ncbi.nlm.nih.gov/pubmed/23919296>

<http://journals.plos.org/plosone/article?id=10.137>

<http://www.ncbi.nlm.nih.gov/pubmed/25048354>

<http://www.ncbi.nlm.nih.gov/pubmed/16926936>

<http://www.ncbi.nlm.nih.gov/pubmed/25484244>

UMLS CUI

Description Hierarchies Relations PubMed / Doc'CISMeF

QD34 multimorbidity (Q-code)

Narrower

Inter-terminologic

Manual NTBT mappings (CISMeF) (1)

comorbidity

MeSH Descriptor

Automatic exact mappings (from CISMeF team) (1)

multimorbidity

MedDRA Preferred Term

See also inter- (CISMeF) (1)

multimorbidity

MedDRA Preferred Term

Description Hierarchies Relations PubMed / Doc'CISMeF

QD32 health issue management (Q-code)

exact

Inter-terminologic

Curated CISMeF NLP mapping (4)

diagnosis

MeSH Descriptor

diagnostic services

MeSH Descriptor

diagnostic techniques and procedures

MeSH Descriptor

therapy

MeSH Qualifier

Validated automatic mappings to BTNT (1)

disease management

MeSH Descriptor

Broader

Équation automatique pour multimorbidity

((("multimorbidity"[TW] OR "multi-morbidity"[TW] OR "polymorbidity"[TW]))

Équation automatique pour health issue management

((("diagnostic services"[MH] OR ("diagnostic services"[TW] OR "services, diagnostic"[TW] OR "diagnostic service"[TW] OR "service, diagnostic"[TW] OR "health issue management"[TW] OR "disease management"[TW] OR "health problem management"[TW])) OR ("diagnostic techniques and procedures"[MH] OR ("diagnostic techniques and procedures"[TW] OR "technics and procedures, diagnostic"[TW] OR "diagnostic technics and procedures"[TW] OR "techniques and procedures, diagnostic"[TW])) OR ("diagnosis"[MH] OR ("diagnosis"[TW] OR "antemortem diagnosis"[TW] OR "postmortem diagnosis"[TW] OR "diagnoses"[TW] OR "diagnoses and examinations"[TW] OR "diagnosis, antemortem"[TW] OR "diagnoses, antemortem"[TW] OR "diagnosis, postmortem"[TW] OR "examinations and diagnoses"[TW] OR "antemortem diagnoses"[TW] OR "postmortem diagnoses"[TW] OR "diagnoses, postmortem"[TW] OR "care manager"[TW] OR "clinical decision"[TW] OR "clinical guidance"[TW])))

QD34 Multimorbidity est étroit

...nih.gov/pubmed?term=("multimorbidity"%5BTW%5D+OR+"multi-morbidity"%5BTW%5D+OR+"polymorbidity"%5BTW%5D)&cmd=DetailsSearch

NCBI Resources How To jamouille My NCBI Sign Out

PubMed ("multimorbidity"[TW] OR "multi-morbidity"[TW] OR "polymorbidity"[TW]) Search

Article types: Clinical Trial, Review, Customize ...

Text availability: Abstract, Free full text, Full text

PubMed: Commons, Reader comments, Trending articles

Publication dates: 5 years, 10 years, Custom range...

Species: Humans, Other Animals

Clear all Show additional filters

Summary 20 per page Sort by Publication Date Send to: Filter your results:

Search results Items: 1 to 20 of 1630 << First < Prev Page 1 of 82 Next > Last >>

1. [A two-way clustering framework to identify disparities in multimorbidity patterns of mental and physical health conditions among Australians.](#)
Ng SK.
Stat Med. 2015 Nov 20;34(26):3444-60. doi: 10.1002/sim.6542. Epub 2015 May 31.
PMID: 26032906
[Similar articles](#)

2. [Energy Metabolism and the Burden of Multimorbidity in Older Adults: Results From the Baltimore Longitudinal Study of Aging.](#)
Fabbri E, An Y, Schrack JA, Gonzalez-Freire M, Zoli M, Simonsick EM, Guralnik JM, Boyd CM, Studenski SA, Ferrucci L.
J Gerontol A Biol Sci Med Sci. 2015 Nov;70(11):1297-303. doi: 10.1093/gerona/glu209. Epub 2014 Nov 18.
PMID: 25409892
[Similar articles](#)

3. [Transforming nurse training to address multi-morbidity: the missed opportunity of the shape of caring review.](#)
Gray R.
J Psychiatr Ment Health Nurs. 2015 Nov;22(9):653-4. doi: 10.1111/jpm.12268. No abstract available.
PMID: 26459921
[Similar articles](#)

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3CGP User guide

→ docpatient.net/3CGP/discover_Q-Codes.htm



Discovering 3CGP (ICPC + Q-Codes) / Discover Q-Codes

[Access HETOP](#) → [Discover HETOP](#) → [Q-Codes story](#) → [Discover ICPC-2](#) → [Discover Q-Codes](#) → [Coding with 3CGP](#) → [Use cases](#)

Unraveling Q-Codes



Knowledge in general practice family medicine is locked in non-published work and this research aim as help GP/FM to affirm itself as a major discipline in health care.

Q-Codes story has been described previous. A list of terms is not sufficient to be sure people are sharing together the same concept. In the mean time machine need precisions about the terminological content of those concept.

To develop the content of the identified theme addressed by GPs during their congress, the terminological system developed by the team of the Bioinformatic laboratory of the Rouen universit (France) has been used.

Due to the kind collaboration of Prof Stefan Darmoni, former GP and informaticians, to Julien Grosjean, computer scientist and Gaetan Kerdelhue, terminologist, the concepts have been described, defined, mapped, linked, highlighted in an online knowledge base edited on Internet under the url ; www.hetop.eu

The work has been performed by one researcher during the year 2015, insuring an internal stability despite a one man view.

The general structure is described in this [poster available here in pdf](#). A print in A3 will allow to have a look at the whole process described here .

laborating the list of Q-Codes has been a progressive work. The seminal idea of Henk Lamberts has been transformed in a 8 domain authority list and a rag-bag. The denomination of the 8 domain has been a personal choice of the researcher, guided by his years of experience in clinical activities and research in primary care. The 8 domains has been open is sub-domains, categories and sub-categories in a parent/child relationships. If possible, all the chosen concepts have surged from the attentive reading of abstracts of communications of congress of general practitioners.

Several free available online terminologies and dictionaries in the medical and sociological fields have been identified and gathered on the page of the code Q, with their acronyms. Most appropriate definitions and sometimes extended content of each concept has been carefully reported and retrieved in the rubric 'conceptual content' of each Q-codes. Indeed, it has not been possible to choose an unique definition has concept present wide variation between sources although semantic contents could be quite similar. Origin of the text is identified by the corresponding acronym.

The chosen title of the rubric of a Q-Codes has been carefully determined by its most habitual use and by its correspondence in various languages, sometimes after huge discussion with translators. The alignment itself of the translations allow a better understanding of the concept.

Worth to note that the chosen title of the rubric, and the supplementary entry terms are used in the final PubMed query. A powerful particularity of the editing interface is that the number of language is not limited. But till now, only English has been developed. Further work could be added by dedicated researchers to add complementary terms in each language



Applications à ce jour

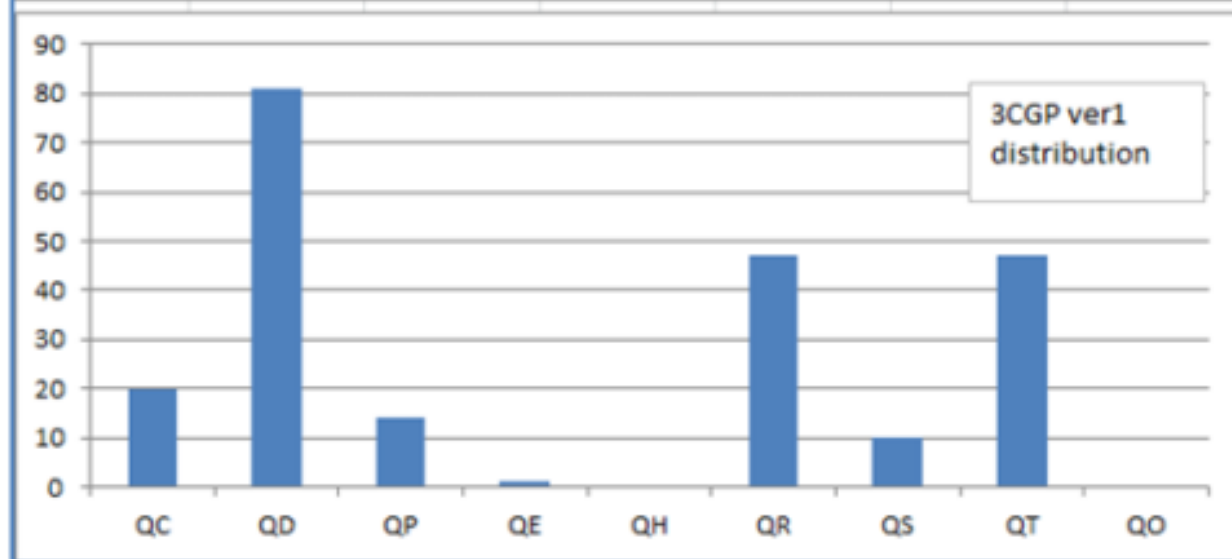
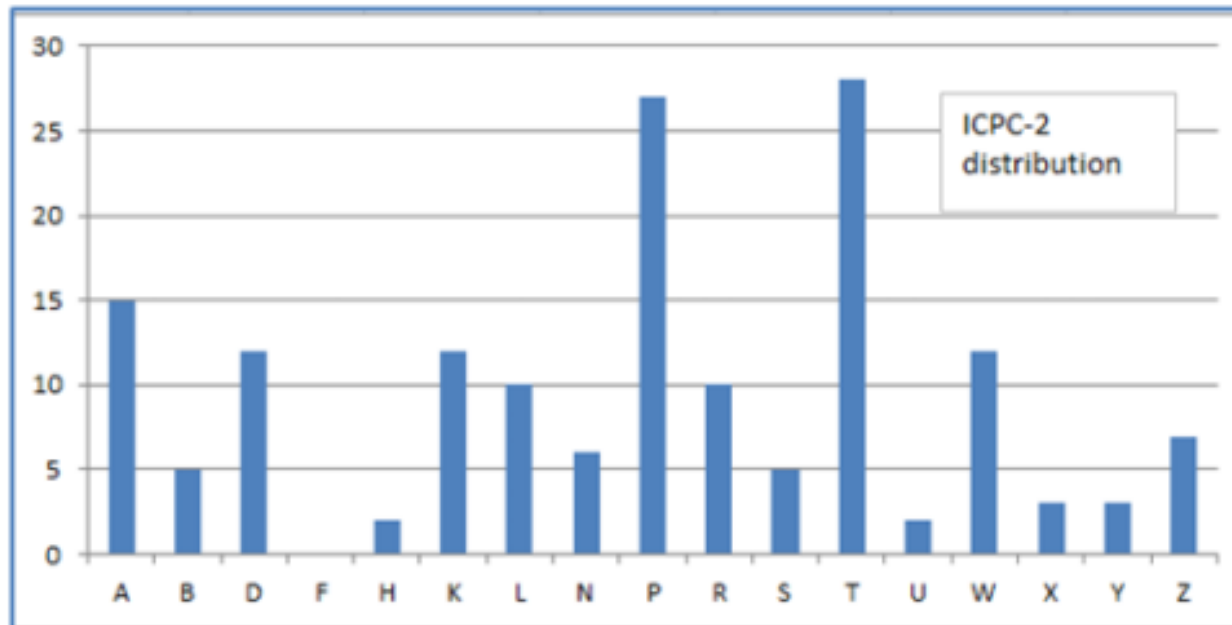
- Indexation manuelle de congrès de médecine générale
- Etudes bibliographiques
- Enseignement des étudiants stagiaires

Applications recherchées

- Indexation automatique par Natural language Processing

Application pour l'indexation de congrès

COVILHA
APMGF meeting
2013



Jamouille M. Using ICPC and 3CGP to classify conference abstracts.

Rev Port Med Geral Fam.
2013;29(5):66–7.

Covilhã congress. APMGF 2013. Content analysis of 128 abstracts with ICPC-2 and 3CGP ver1
QC; patient's Category. QD; Doctor's issues. QP; Patient's issues. QE; Ethical issues. QH; Hazard.
QR; Research. QS; Structure of practice QT; Knowledge management. QO; others

Application à l'étude bibliographique

- Concept identification and context analysis of the Wonca Europe 2015 book by instance-based categorization of general practice activities

<http://orbi.ulg.ac.be/handle/2268/185776>

- Une étude bibliographique avec 3CGP (ICPC+Q-Codes) Les médecins de famille tunisiens au travers de Medline

<http://orbi.ulg.ac.be/handle/2268/187393>

Application à l'enseignement

← → ↻ 🏠 docpatient.net/3CGP/



Luca di Tommè. Riettimuseum Italy. 1370
Madona col bambini - Detail

WAP Wonca Abstract Project Core Content Classification in General Practice Family medicine (3CGP)



Ignoto Romano. Rietti Museum, Italy XVIIIsec
S. Francisco - Detail

- Visualization of the project [mind map](#) 2014
- Update of the project [mind map 2 june 2015](#)



- **3CGP is formed by the association of ICPC-2 and Q-codes** [The 3CGP project](#)
 - Using 3CGP on Hetop portal / Discovering 3CGP (ICPC + Q-Codes)/ [User guide](#) (October 2015)
 - ICPC-2 informations and download; [ph3c.org](#)
 - Q-Codes; [version 1](#) (2007) / [version 2.1](#) (2015) / Version 2.2 (Nov.2015) [htm format](#) , [pdf format](#)
 - Example of a full record : Example of a terminological record :[QD5 Complementary & Alternative Medicine](#)
 - Using Q-Codes [at the point of care with trainees in GP/FM](#) :

[Back to exercises](#)

Stages de médecine de famille

Les étudiants en médecine des universités francophones belges sont amenés à faire des stages en médecine de famille. Ces : réalité d'un métier complexe qui met en œuvre des ressources particulières. Le stagiaire participe à la consultation, s'entret commente et donne les ressources pour comprendre les enjeux.

Consultation / Médecine de famille / Espace-Temps Gilly / 20 nov 2015 / Pollution air intérieur

Formation médicale nécessaire pour gérer ce contact:

- Code [CISP](#) correspondants : R78 Bronchiolite / Z03 Problème de logement
- Fiches [Q-Codes](#) correspondantes ; [QH11 indoor pollution.pdf](#) & [QS31 practice collaboration.pdf](#)

- Code [CISP](#) correspondants : R78 Bronchiolite / Z03 Problème de logement
- Fiches [Q-Codes](#) correspondantes : [QH11 indoor pollution.pdf](#) & [QS31 practice](#)

Formation médicale nécessaire pour gérer ce contact:

- Code [CISP](#) correspondants : Z03 Problème de logement/ Z04 Problème culturel / Z07 Problème d'éducation
- Fiche [Q-Codes](#) correspondante ; [QC3 social high risk.pdf](#)

- / Z07 Problème d'éducation
- Fiche [Q-Codes](#) correspondante ; [QC3 social high risk.pdf](#)

Donc pour finir, j'ai une base de connaissance

- Qui vaut ce qu'elle vaut (un seul observateur-vision européenne – nombreux biais possibles)
- Mais dans le genre bottom-up, c'est la seule (précédent; FAMILY 1992 et GP LIT 1998)
- Qui intéresse beaucoup de collègues (d'où le nombre de traductions)
- Surtout les étudiants en médecine de famille
- Qui peut être évolutive
- Qui peut se prêter à la NLP
- Projet d'en faire un livre (pour les humains sans Internet)
- Et une ontologie (pour les machines)
- Mais ça c'est pour 2017 (pour mes 70 ans 😊)

Ce projet de peut exister sans l'aide de nombreux que je remercie ici

- (be) Marc Van Meerbeek , Aswin Ittoo, Sebastien Rigaux, Robert Vander Stichele, Johan Brouns, Serdal Sanak
- (br) Gustavo Gusso, Raquel Cardoso, Arthur Treuherz, Hamilton Wagner, Armando Norman
- (ar) Mariano Marino
- (ur) Miguel Pizanelli
- (fr) Stefan Darmoni, Julien Grosjean, Gaetan Kerdelhue, Benoit Thirion, Laurent Letrilliart
- (us) Melissa Resnick
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Toutes collaborations
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