

Exploring HeTOP,

Exploring ICPC-2 on HeTOP

Marc Jamouille

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Université de Liège, Département de médecine générale

Université de Rouen, laboratoire d'informatique médicale



Lesson 1 Exploring HeTOP

Slide 3

Lesson 2 Exploring ICPC-2 on HeTOP

Slide 10

References

Slide 20

HeTOP allows you

- To consult numerous interactive terminologies
- To understand the mappings between them
- To find and browse concepts
- To consult selected databases
- To find documents
- To make links with external knowledge bases such as [PubMed](#), [LiSSa](#), [LILACS](#), [Doc'CISMeF](#), [Bioportal](#)

The content of HeTOP

- Is exportable in the OWL2 language and opens to the semantic web
- Is a resource for numerous applications (acts like a terminology/ ontology platform)
- Natural Language Processing source
- Automatic indexing
- Automatic concept retrieval

www.hetop.eu

Sign in

XXXX

XXXXXXXXXX

HeTOP public Home page



CISMeF About Medical sites and documents Health terminologies Other tools Help

HeTOP en fr

examples: asthma, asthma, D001249.nu, aath,

Object types selection

- MeSH
- CISMeF
- BHN
- CCAM
- DRC
- FMA
- Gene Ontology
- Genes & Proteins
- HPO
- ICD-9
- ICD-10 ATIH
- ICD-10
- ICF
- ICNP
- IUPAC
- MedlinePlus
- NABM
- NCit
- OMIM
- RADLEX
- SNOMED int.
- WHO-ART
- WHO-ICPS
- UCUM
- UMLS (Semantic Network)

Presentation Terminologies Partners Documentation/Publications Tools

The Health Terminology/Ontology Portal (HeTOP) is offered by the CISMeF team of the [CHU de Rouen](#) (LITIS EA 4108, Université de Rouen), in collaboration with the [INSA de Rouen](#) and the [MONDECA](#) company.

The HeTOP includes the main key health terminologies available in French. It aims to provide centralized access to them.

By registering you can access the following terminologies: ACR, ADICAP, ATC, BHN, BNCI, BNPC, Bon Usage Radio., CCAM, ICF, ICD-9, ICD-10, ICD-O, CISMeF, ICPC-2, Cladimed, DRC, FMA, Gene Ontology, Genes & Proteins, HPO, ICNP, IUPAC, LOINC, LPP, MedlinePlus, MeSH, MIDAS, NABM, NCCMERP, NCIT, OMIM, HRDO, PASCAL (Health), PATHOS, PSIP Taxonomy, RADLEX, SNOMED int., UMLS (semantic network), VCM, WHO-ART and WHO-ICPS.

An automatically generated password will be sent by e-mail as soon as possible after verification of your information.

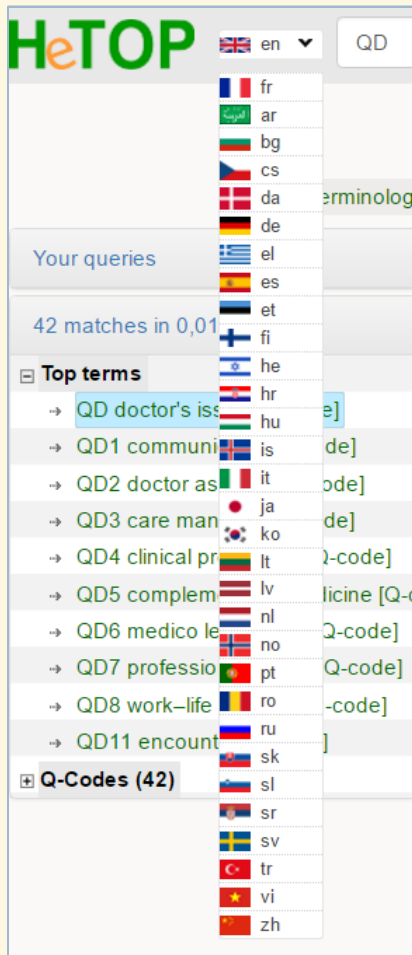
It is free EXCEPT for private companies, in this case please [contact us for details](#).

News

Updates: BNPC 2016, LPP 231A

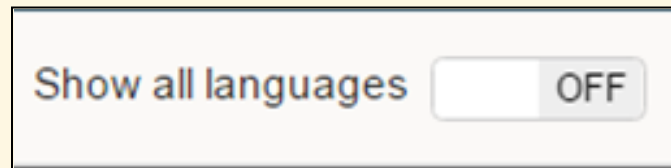
Inscription Sign in

Choose your language

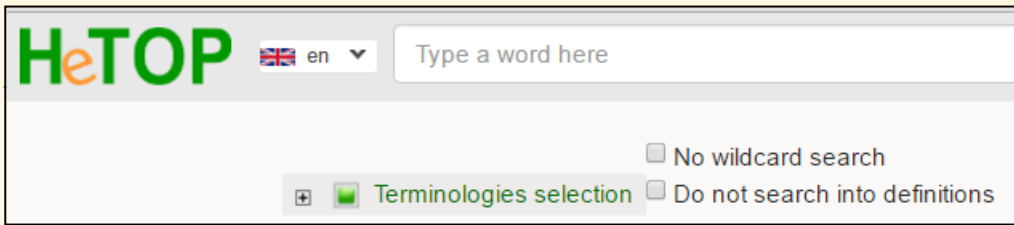



HeTOP is multilingual (search in several languages) and crosslingual (navigate through languages) but it is not a dictionary

You could see all available languages (just glide the button, it's a bipolar system...)



Select your terminology



HeTOP  en

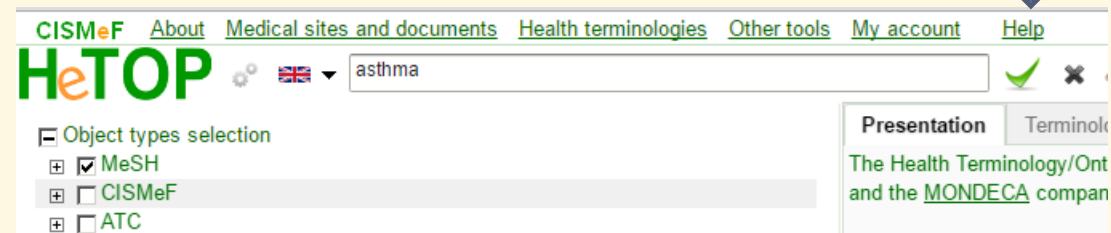
No wildcard search
 Terminologies selection Do not search into definitions

Try first
Mesh





Type a term in the entry field, i.e.
asthma

And click on the green arrow

- [-] Object types selection
 - MeSH
 - CISMef
 - ATC
 - FMA
 - Gene Ontology
 - Genes & Proteins
 - HPO
 - HRDO
 - ICD-9
 - ICD-10 WHO
 - ICD-O
 - ICF
 - ICPC-2
 - IUPAC
 - LOINC
 - MedlinePlus
 - NCIt
 - OMIM
 - RADLEX
 - SNOMED int.
 - WHO-ART
 - WHO-ICPS
 - UCUM
 - UMLS (Semantic Network)
 - Q-Codes



CISMef About Medical sites and documents Health terminologies Other tools My account Help

HeTOP    

[-] Object types selection

- MeSH
- CISMef
- ATC




Presentation Terminology

The Health Terminology/Ontology and the [MONDECA](#) company

You get the Description tab. Just try to explore the links

Then explore the tabs Hierarchies and Relations

CISMeF About Medical sites and documents Health terminologies Other tools My account Help

HeTOP    examples: asthme, asthma, D001249.nu, asth,

33 matches in 0,68 s ★★☆☆

Terminologies selection

Your queries (1)

Views history (9)

Results




MeSH (33)

- MeSH Descriptor (11)
 - airway remodeling
 - anti-asthmatic agents
 - asthma**
 - asthma, Aspirin-Induced
 - asthma, exercise-induced
 - asthma, occupational
 - beclomethasone
 - conyza
 - dyspnea, paroxysmal
 - status asthmaticus
 - tylophora
- MeSH Supplementary Concept (8)
 - asthma and nasal polyps
 - asthma, nasal polyps, and aspirin intolerance
 - asthma, short stature, and elevated IgA
 - asthmalgine
 - asthmasedine
 - dermatitis, atopic, 3
 - ige responsiveness, atopic
 - NPSR1 protein, human
- MeSH concept (14)
 - Anti-Asthmatic agents
 - asthma
 - asthma and nasal polyps
 - asthma, Aspirin-Induced
 - asthma, cardiac


Description Hierarchies Relations PubMed / Doc'CISMeF

Asthma (MeSH Descriptor)

Resource consulted 3455 times [See all languages](#)


Preferred Label

 asthma



Origin ID

D001249

MeSH definition




 A form of bronchial disorder with three distinct components: airway hyper-responsiveness (RESPIRATORY HYPE AIRWAY OBSTRUCTION. It is characterized by spasmodic contraction of airway smooth muscle, WHEEZING, a

CISMeF synonym

 asthmas, bronchial  bronchial asthmas

DeCS synonym

MeSH synonym

 asthma, bronchial  asthmas  bronchial asthma

UMLS CUI

C0004096

VIDAL definition

On the tabs Relations

Explore the terminological mappings

Description Hierarchies **Relations** PubMed / DocCISMeF

Asthma (MeSH Descriptor) 

Inter-terminologic Intra-terminologic

- + **Semantic type(s) (1)**
- + Allowable qualifiers (37)
- + See also (2)
- + **See also inter- (CISMeF) (1/5)**
- + Related MeSH Supplementary Concept(s) (4)
- + Record concept(s) (1)
- + Metaterm(s) (5)
- + Indexing information (20)
- + **MedlinePlus topic(s) (2)**
- + **CISMeF manual mappings (2/3)**
- + **Currated CISMeF NLP mapping (11/24)**
- + **UMLS correspondences (same concept) (9/17)**
- + **Validated automatic mappings to BTNT (1/3)**
- + **Automatic exact mappings (from CISMeF team) (3/8)**
- + **False automatic mappings (1/3)**

Lesson 2 Exploring ICPC-2 on HeTOP



Deselect
all

- Object types selection
- MeSH
- CISMef
- ATC
- FMA
- Gene Ontology
- Genes & Proteins
- HPO
- HRDO
- ICD-9
- ICD-10 WHO
- ICD-O
- ICF
- ICPC-2
- IUPAC
- LOINC
- MedlinePlus
- NCIt
- OMIM
- RADLEX
- SNOMED int.
- WHO-ART
- WHO-ICPS
- UCUM
- UMLS (Semantic Network)
- Q-Codes

Select ICPC-2
Then click on the +
And chose the
component

- ICF
- ICPC-2
 - ICPC-2 Chapter
 - ICPC-2 Rubric
 - ICPC-2 Process
- IUPAC
- LOINC

CISM_eF About Medical sites and docur

HeTOP   P76

1 matches in 0,33 s ★★☆☆

Terminologies selection

Object types selection

- MeSH
- CISM_eF
- ATC
- FMA
- Gene Ontology
- Genes & Proteins
- HPO
- HRDO
- ICD-9
- ICD-10 WHO
- ICD-O
- ICF
- ICPC-2
 - ICPC-2 Chapter
 - ICPC-2 Rubric
 - ICPC-2 Process
- IUPAC
- LOINC
- MedlinePlus
- NCIt
- OMIM


Type a code or a term
Then click the green
arrow

You get the P76 record


Description Hierarchies Relations PubMed / Doc'CISM_eF


P76 depressive disorder (ICPC-2 Rubric)


Resource consulted 13 times [See all languages](#) [Suggest new content !](#)





Origin ID
P76

Preferred Label
 depressive disorder

ICPC2 definition
 fundamental disturbance in affect and mood towards depression. mood, energy and activit and concentration. sleep and appetite are usually disturbed and self-esteem an

Exclusion
 acute stress reaction P02

Inclusion

 depressive neurosis/psychosis, mixed anxiety and depression, reactive depression, puerperal/postnatal depression	 depressive neurosis/psychosis; mixed anxiety and depression; puerperal/postnatal depression; reactive depression
---	--

UMLS CUI
C0011581

ICPC-2 component

P76 depressive disorder (ICPC-2 Rubric)

Resource consulted 13 times

Suggest new content !



Origin ID

P76

Preferred Label

- depressive disorder
- Depressiv tilstand
- depressive Stoerung
- Alteraciones depresivas
- Masennustila
- dépression
- haffraa dikonit
- Depresivni poremećaj
- depresszio
- Disturbo depressivo
- うつ病性障害
- Depressieve stoornis
- depressiv tilstand/neurose
- Perturbações depressivas
- Tulburari depressive
- depresivna motnja
- depressiv storming
- Depresif bozukluk
- Rối loạn trầm cảm

ICPC2 definition

- fundamental disturbance in affect and mood towards depression. mood, energy and activity are simultaneously lowered, together with an impaired capacity for enjoy esteem an
- 抑うつ状態に向かっているう感情と気分でのにおける基礎的障害。喜び、興味そして集中力の低下と共に同時に感情、エネルギーと活動性は同時にも低
- distúrbio importante do estado de espírito no sentido da depressão. O estado de espírito, a energia e a atividade diminuem, assim como diminui a alegria, o interes confiança diminuem.
- perturbare fundamentala a afectului si a dispozitiei spre depresie. Dispozitia, energia si activitatea sunt reduse simultan, împreuna cu alterarea capacitatii de a se b respectul de sine si încrederea sunt reduse.

Exclusion

- acute stress reaction P02
- akut stressreaktion P02
- reactia acuta de stres P02

- réaction de stress aiguë P02
- akut stres reaksiyonu P02

- 急性ストレス反応P02

Try see all languages

Explore hierarchy

Description **Hierarchies** Relations PubMed

P76 depressive disorder (ICPC-2 Rubric)

[Simple tree](#)

- ARBO ICPC-2 top tree
 - A general/unspecified
 - B blood/blood forming organs/immune mechanism
 - D digestive
 - F eye
 - H ear
 - K circulatory
 - L musculoskeletal
 - N neurological
 - P psychological**
 - P01 feeling anxious/nervous/tense
 - P02 acute stress reaction
 - P03 feeling depressed
 - P04 feeling/behaving irritable/angry
 - P05 Senility, feeling/behaving old
 - P06 sleep disturbance
 - P07 sexual desire reduced
 - P08 sexual fulfilment reduced
 - P09 sexual preference concern
 - P10 stammering/stuttering/tic
 - P11 eating problem in child
 - P12 bedwetting/enuresis
 - P13 encopresis/bowel training problem
 - P15 chronic alcohol abuse
 - P16 acute alcohol abuse
 - P17 tobacco abuse
 - P18 medication abuse
 - P19 drug abuse
 - P20 memory disturbance
 - P22 child behaviour symptom/complaint
 - P23 adolescent behaviour symptom/complaint
 - P24 specific learning problem

Explore Relations

Description Hierarchies **Relations** PubMed / Doc

P76 depressive disorder (ICPC-2 Rubric)

Inter-terminologic Intra-terminologic

- Semantic type(s) (1)**
- Is excluded by (3)**
 - ICPC2 exclusion (1)
 - ICPC2 Considering (1)
- ICD-10 related (22)**
- CISMeF manual mappings (1)**
- Currated CISMeF NLP mapping (7/13)**
- Automatic exact mappings (from CISMeF team) (2/10)**
- UMLS correspondences (same concept) (3/8)**

Intra terminologic relations

All the links retrieved from KITH web site

ICPC-2e-v.5.0 19. May 20 15

Description	Hierarchies	Relations	PubMed / DocCISMeF
P76 depressive disorder (ICPC-2 Rubric)			
<input type="button" value="Inter-terminologic"/> <input type="button" value="Intra-terminologic"/>			
⊞ Semantic type(s) (1)			
⊞ Is excluded by (3)			
P73 affective psychosis			
P74 anxiety disorder/anxiety state			
W96 complications of puerperium other			
⊞ ICPC2 exclusion (1)			
P02 acute stress reaction			
⊞ ICPC2 Considering (1)			
P03 feeling depressed			
⊞ ICD-10 related (22)			
Depressive episode, unspecified			
Dysthymia			
Mild depressive episode			
Mild mental and behavioural disorders associated with the puerperium			
Mixed anxiety and depressive disorder			
Moderate depressive episode			
Other depressive episodes			
Other persistent mood [affective] disorders			
Other recurrent depressive disorders			
Other recurrent mood [affective] disorders			
Other single mood [affective] disorders			
Other specified mood [affective] disorders			
Persistent mood [affective] disorder, unspecified			
Recurrent depressive disorder, current episode mild			
Recurrent depressive disorder, current episode moderate			
Recurrent depressive disorder, current episode severe with psychotic symptoms			
Recurrent depressive disorder, current episode severe without psychotic symptoms			
Recurrent depressive disorder, currently in remission			
Recurrent depressive disorder, unspecified			
Severe depressive episode with psychotic symptoms			
Severe depressive episode without psychotic symptoms			
Unspecified mood [affective] disorder			
⊞ CISMeF manual mappings (1)			
⊞ Currated CISMeF NLP mapping (7/13)			
⊞ Automatic exact mappings (from CISMeF team) (2/10)			
⊞ UMLS correspondences (same concept) (3/8)			

Chose ICPC-2 / Process and type -30

CISMeF About Medical sites and documents Health terminologies Other tools My account Help

HeTOP -30 examples: asthma, asthria, D001240.nu, asth

1 matches in 0,62 s

Terminologies selection

Object types selection

- MeSH
- CISMeF
- ATC
- FMA
- Gene Ontology
- Genes & Proteins
- HPO
- HRDO
- ICD-9
- ICD-10 WHO
- ICD-O
- ICF
- ICPC-2
 - ICPC-2 Chapter
 - ICPC-2 Rubric
 - ICPC-2 Process
- IUPAC
- LOINC
- MedlinePlus
- NCIt
- OMIM
- RADLEX
- SNOMED int.
- WHO-ART
- WHO-ICPS
- UCUM
- UMLS (Semantic Network)
- Q-Codes

Your queries (2)

Views history (7)

Results

Description

-30 medical examination / health evaluation complete (ICPC-2 Process)

Resource consulted 33 times [Suggest new content !](#)

Origin ID

-30

Preferred Label

- medical examination / health evaluation complete
- Medicinsk us/helbredsverd komplet
- vollstaendige aertzliche Untersuchung
- exploracion/eval salud, completa
- Laaja terveydentilan arviointi/tarkastus
- examen médical/bilan de santé global
- Medicinski pregled/procjena-kompletan
- teljes orvosi vizsgalat/eu.ertekeles
- Vis medica/valutaz salute/completa
- 完全な診察 / 健康診断
- lichamelijk onderzoek volledig
- med/klinisk us/helseverd/kompl
- exame médico/avaliação de saúde - completo
- examen medical/bilant de sanatate detaliat
- Celotni pregled
- medicinsk undersokning/fullstandig
- khám bệnh/ đánh giá sức khỏe toàn diện

Inclusion

- complete examination of one body system or the whole body; complete check-up; well-baby exam; school health care exam for children/youth
- kattava yhden elinjärjestelmän tai koko kehon käsittävä tarkastus; laaja terveydentilan tarkastus; laaja-alainen terveystarkastus lastenneuvolassa; laaja-alainen terveystarkastus kouluterveydenhuollossa
- examen complet d'un système corporel ou du corps entier; bilan global; examen du nourisson bien portant; examen de santé scolaire d'un enfant ou d'un jeune

Consider

- medical examination/health evaluation partial -31; physical function test -39; if an exam also requires a written report code also -82
- Suppea terveydentilan arviointi/tarkastus-31; Kliininen toimintakoe -39
- examen de santé partiel -31; test fonctionnel -39; si un examen nécessite également un rapport écrit coder aussi -82

CISMeF synonym

- check-up

Suomi

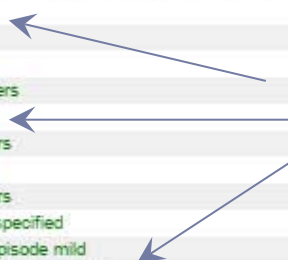
French

Explore inter-terminologic

SNOMED-CT not present due to copyright issues

Description	Hierarchies	Relations	PubMed / Doc/CISMeF
▣ Semantic type(s) (1)			
Mental or Behavioral Dysfunction			Semantic type
▣ Is excluded by (3)			
▣ ICPC2 exclusion (1)			
▣ ICPC2 Considering (1)			
▣ ICD-10 related (22)			
Depressive episode, unspecified			ICD-10 Sub-category (who)
Dysthymia			ICD-10 Sub-category (who)
Mild depressive episode			ICD-10 Sub-category (who)
Mild mental and behavioural disorders associated with the puerperium, not elsewhere classified			ICD-10 Sub-category (who)
Mixed anxiety and depressive disorder			ICD-10 Sub-category (who)
Moderate depressive episode			ICD-10 Sub-category (who)
Other depressive episodes			ICD-10 Sub-category (who)
Other persistent mood [affective] disorders			ICD-10 Sub-category (who)
Other recurrent depressive disorders			ICD-10 Sub-category (who)
Other recurrent mood [affective] disorders			ICD-10 Sub-category (who)
Other single mood [affective] disorders			ICD-10 Sub-category (who)
Other specified mood [affective] disorders			ICD-10 Sub-category (who)
Persistent mood [affective] disorder, unspecified			ICD-10 Sub-category (who)
Recurrent depressive disorder, current episode mild			ICD-10 Sub-category (who)
Recurrent depressive disorder, current episode moderate			ICD-10 Sub-category (who)
Recurrent depressive disorder, current episode severe with psychotic symptoms			ICD-10 Sub-category (who)
Recurrent depressive disorder, current episode severe without psychotic symptoms			ICD-10 Sub-category (who)
Recurrent depressive disorder, currently in remission			ICD-10 Sub-category (who)
Recurrent depressive disorder, unspecified			ICD-10 Sub-category (who)
Severe depressive episode with psychotic symptoms			ICD-10 Sub-category (who)
Severe depressive episode without psychotic symptoms			ICD-10 Sub-category (who)
Unspecified mood [affective] disorder			ICD-10 category (who)
▣ CISMeF manual mappings (1)			
depressive disorder			MeSH Descriptor
▣ Currated CISMeF NLP mapping (7/13)			
Depression			NCIt concept
depression			MeSH Descriptor
depression			MeSH concept
DEPRESSION			WHO-ART High Level Term
Depression			LOINC component
depression, nos			SNOMED Notion
depressive disorder			MeSH concept
▣ Automatic exact mappings (from CISMeF team) (2/10)			
Depressive episode, unspecified			ICD-10 Sub-category (who)
Special screening examination for mental and behavioural disorders			ICD-10 Sub-category (who)
▣ UMLS correspondences (same concept) (3/8)			
C0011581	depressive disorder		MeSH Descriptor
C0011581	depressive disorder		MeSH concept
C0011581	depressive disorder, nos		SNOMED Notion

You can explore any link



The Q-Code database has been fulfilled in exactly in the same way, step by step, (a two years work). Korean and Vietnamese translations have been added by colleagues through DBGUI, as I was unable to manage those languages.

Edit Resource CGP_QC_QD445 (QD445 overdiagnosis)		
Category label	Sobrediagnóstico	es ▾
	Surdiagnostic	fr ▾
	과진단	ko ▾
	Overdiagnostic	nl ▾
	Sobrediagnóstico	pt ▾
	lạm dụng chẩn đoán	vi ▾
		▾
Q-Code entry term		en ▾
Q-Code acronym		en ▾
Q-Code definition	overdiagnosis occurs when a diagnosis is "correct" according to current professional standards but when the diagnosis or associated treatment has a low probability of benefiting the person diagnosed (Moynihan 2012)	en ▾
	el sobrediagnóstico ocurre cuando un diagnóstico, o su tratamiento asociado, pesar de ser "correctos" de acuerdo a los estándares profesionales, tienen una baja probabilidad de beneficiar a la persona diagnosticada (Moynihan 2012)	es ▾
	un surdiagnostic se produit quand un diagnostic est "correct" selon les normes professionnelles actuelles, mais lorsque le diagnostic ou le traitement associé a une faible probabilité de bénéficier à la personne diagnostiquée (Moynihan 2012)	fr ▾
	최신의 진단기준에 따라 '맞는' 진단을 하였지만, 이로 인한 치료는 환자에게 도움이 안되는 경우	ko ▾
	overdiagnostiek gebeurt wanneer de diagnose volgens professionele maten correct is, maar wanneer de diagnose of de geassocieerde behandeling een lage probab	nl ▾

Building mappings to one Q-Codes ; here Shared Decision Making

<http://www.ncbi.nlm.nih.gov/pubmed/26382118>
<http://www.nejm.org/doi/full/10.1056/NEJMp1200070>
<http://www.nejm.org/doi/full/10.1056/NEJMp1510020>
<https://sites.google.com/site/ladecisionpartaqee/home>

PubMed query (by CISMef)

Full tree

Q Q-codes

See also (0)

See also (suggested by CISMef) (1/0)

See also inter- (CISMef) (0/1)

QD21 problem solving

Q-code

See also (automatic) (7)

-48 clarification / discussion of patient's RFE / demand

ICPC-2 Process

QD12 doctor-patient relationship

Q-code

QP4 patient perspective

Q-code

QP6 patient participation

Q-code

QP42 patient knowledge

Q-code

QP43 patient autonomy

Q-code

QP44 patient culture

Q-code

Semantic type(s) (0)

CISMef manual mappings (0)

Curated CISMef NLP mapping (0)

Automatic exact mappings (from CISMef team) (3)

decision making, shared

MeSH concept

SDM

MeSH concept

SDM

MeSH Supplementary Concept

Validated automatic mappings to BTNT (0)

Manual BTNT mappings - CISMef (0)

Validated automatic mappings to NTBT (0)

Manual NTBT mappings (CISMef) (0)

False automatic mappings (1)

decision making

MeSH Descriptor

UMLS correspondences (same concept) (0)

False UMLS correspondences (reviewed by CISMef team) (0)

Thinks that the underlying language is OWL-2, the Web Ontology Language allowing to develop ICPC-2 in any OWL editor, e.g. Protégé

Thus ICPC-2 could be linked to ICD-11, developed with the same technology by the team of Stanford (US)

This is a time consuming job

But it is language independent.

The work is the same as with the Excel filling

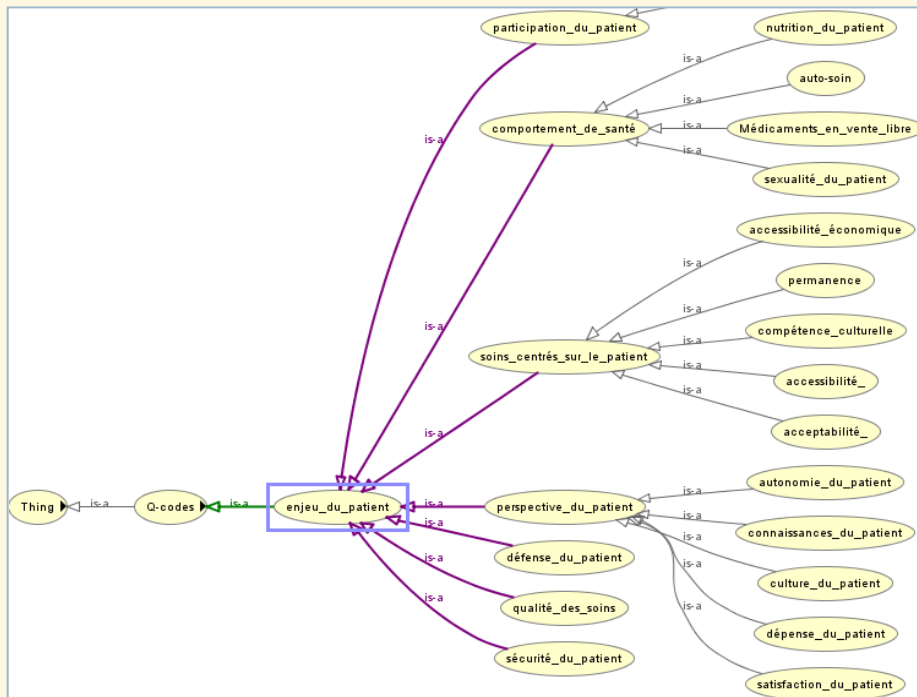
But the mapping is proposed (and sometimes automatically done).

Several participants can work together.

The system doesn't allow several participants working on the same issue.

All information can be extracted either in Excel format, either in OWL2.

OWL2 allows to use ontology editors like WebProtégé



A view of Q-Code in Protégé

This wonderful tool is the work of the team of Rouen medical informatics lab
and particularly of Julien Grosjean PhD prof of informatics

- Grosjean, Julien, Nicolas Griffon, Badisse Dahamna, and Stefan Darmoni. 20 11. “Multiterminology Cross-Lingual Model to Create the European Health Terminology / Ontology Portal.” Pp. 119–22 in Proceedings of the 9th International Conference on Terminology and Artificial Intelligence.
- Grosjean, Julien, Tayeb Merabti, Nicolas Griffon, Badisse Dahamna, and Stéfan J. Darmoni. 20 12. “Teaching Medicine with a Terminology/ ontology Portal.” Studies in health technology and informatics 180 :949–53. Retrieved April 15, 20 16 (<http://europepmc.org/abstract/MED/22874333>).
- Jamouille, Marc, Miguel Pizzanelli, Julien Grosjean, Gaetan Kelderhue, and Stefan Darmoni. 20 15. “International Classification of Primary Care in a Cross-Lingual Terminology Portal.” P. Poster in 4° Congreso Iberoamericano de Medicina Familiar y Comunitaria. Montevideo March 19-21 20 15. Montevideo. Retrieved (<http://hdl.handle.net/2268/179499>).
- Grosjean, Julien, Gaetan Kerderlhué, Tayeb Merabti, and Stéfan J. Darmoni. 20 12. “The HeTOP: Indexing Health Resources in a Multi-Terminology/ ontology and Cross-Lingual World.” in EAHIL 20 12. Retrieved (http://ceur-ws.org/Vol-952/paper_17.pdf).

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