Exploring HeTOP,

Exploring ICPC-2 on HeTOP

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Lesson 1 Exploring HeTOP

Lesson 2 Exploring ICPC-2 on HeTOP

References

Slide 3
Slide 10
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
HeTOP public Home page

<table>
<thead>
<tr>
<th>Object types selection</th>
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<tbody>
<tr>
<td>MeSH</td>
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<td>CISMef</td>
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<td>WHO-ICPS</td>
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<td>UCM</td>
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<tr>
<td>UMLS (Semantic Network)</td>
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**Presentation**
The Health Terminology/Ontology Portal (HeTOP) is offered by the CISMef team of the CHU de Rouen (LUTIS 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, ICP, IUPAC, LOINC, LPP, MedlinePlus, MeSH, MIDAS, NABM, NCIMEP, 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 which case please contact us for details.

**News**
Updates: BNP 2016, LPP 231A
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

Try first
MesH

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

And click on the green arrow

Wednesday, August 24, 2016
You get the Description tab. Just try to explore the links
Then explore the tabs Hierarchies and Relations.
On the tabs Relations
Explore the terminological mappings

Asthma (MeSH Descriptor)

- 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)
- Metatext(s) (5)
- Indexing information (20)
- MedlinePlus topic(s) (2)
- CISMeF manual mappings (2/3)
- Curated 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

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

ICPC-2
ICPC-2 Chapter
ICPC-2 Rubric
ICPC-2 Process
IUPAC
LOINC
Type a code or a term
Then click the green arrow

You get the P76 record

**P76 depressive disorder** (ICPC-2 Rubric)

<table>
<thead>
<tr>
<th>Description</th>
<th>Hierarchies</th>
<th>Relations</th>
<th>PubMed / Doc 'CISMeF'</th>
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<tbody>
<tr>
<td><strong>P76</strong></td>
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</tr>
</tbody>
</table>

**Preferred Label**
- depressive disorder

**ICPC2 definition**
- fundamental disturbance in affect and mood towards depression: mood, energy and activity 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 stád
- depressive Störung
- Alteraciones depresivas
- Masennustila
- dépression
- hafraa dikont
- Depresívni poremčaj
- depresszió
- Disturbo depressivo
- うつ病性障害
- Depressieve stoornis
- depressiv tilstand/neurose
- Perturbações depressivas
- Tulburari depressive
- depresiva motnja
- depressiv störning
- Depresif bozukluk
- Ról loan tràm câm

### ICPC2 definition

**English:**  
A fundamental disturbance in affect and mood towards depression, mood, energy and activity are simultaneously lowered, together with an impaired capacity for enjoyment.

**Slovak:**  
Zlostný stav je niekaždý nesporok, ktorý sa týka človeka vo všetkých oblastiach jeho života.  

**Spanish:**  
Disturbio importante del estado de espíritu en el sentido de la depresión. El estado de espíritu, la energía y la actividad disminuyen, así como la alegría, el interés y el buen estado.

**Portuguese:**  
Perturbação fundamental para o afeto e a disposição de depressão. A disposição, energia e atividade são simultaneamente reduzidas, juntamente com a capacidade de alegria, o interesse e a confiança.

**Romanian:**  
Disturber fundamentala a afectului și a dispoziției spre depresie. Dispozitia, energia și activitatea sunt reduse simultan, împreună cu alterarea capacității de a se bucura de sine și încurajarea 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
Explore hierarchy

P76 depressive disorder

Description
Hierarchies
Relations
PubMed

Simple tree

- ARBO ICPC-2 top tree
  - A. general/unspecified
  - B. blood/blood forming organs/immune mechanism
  - D. digestive
  - E. 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

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)
- Curated 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 website

ICPC-2e-v.5.0 19. May 2015
Chose ICPC-2 / Process and type -30

**French**

**Suomi**
Explore inter-terminologic

<table>
<thead>
<tr>
<th>Description</th>
<th>Hierarchies</th>
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<td>Mild mental and behavioural disorders associated with the puerperium, not elsewhere classified</td>
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<td>Recurrent depressive disorder, current episode moderate</td>
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<tr>
<td>Recurrent depressive disorder, current episode severe without psychotic symptoms</td>
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<td>Severe depressive episode with psychotic symptoms</td>
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<td>Severe depressive episode without psychotic symptoms</td>
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SNOMED-CT not present due to copyright issues

You can explore any link
The Q-Code database has been fulfilled in exactly 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.

<table>
<thead>
<tr>
<th>Category label</th>
<th>Sobrediagnóstico</th>
<th>Surdiagnostic</th>
<th>과진단</th>
<th>Overdiagnostic</th>
<th>Sobrediagnóstico</th>
<th>Iâm dung chẩn đoán</th>
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<td>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)</td>
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<td>el sobrediagnóstico ocurre cuando un diagnóstico, o su tratamiento asociado, pesar de ser &quot;correctos&quot; de acuerdo a los estándares profesionales, tienen una baja probabilidad de beneficiar a la persona diagnosticada (Moynihan 2012)</td>
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<td>un surdiagnostic se produit quand un diagnostic est &quot;correct&quot; selon les normes professionnelles actuelles, mais lorsque le diagnostic ou le traitement associé à une faible probabilité de bénéficier à la personne diagnostiquée (Moynihan 2012)</td>
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<td>최신의 진단기준에 따라 ‘맞는’ 진단을 하였지만, 이로 인한 치료는 환자에게 도움이 안되는 경우</td>
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<td>overdiagnostiek gebeurt wanneer de diagnose volgens professionele maten correct is, maar wanneer de diagnose of de geassocieerde behandeling een low probabilitit on</td>
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</table>
Building mappings to one Q-Codes; here Shared Decision Making
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.


