ICPC step by step

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Conflict of interest: unfortunately none
International Classification of Primary Care is a tool for GP/FM
What is ICPC meant for?

- **Individually**; it provides a representation of:
  - patient doctor interaction
  - doctor's decision process
  - Along the time line

- **Collectively**; Allows Statistical & epidemiological studies
Why a code?

Lowering of redundancy

From pencil to machine

Source: Claude Elwood Shannon (1916-2001)
Why a specific GP/FM classification?

- **ICPC (WONCA)**
  - Conceptual construct
  - About health problems
  - Patient centered
  - Structural basement

- **ICD (WHO)**
  - Historical construct
  - About diseases
  - Provider centered
  - Linear basement
ICPC: facts

WICC
- Since the 70's
- 41 members
- 25 countries
- 5 continents
- Preparing ICPC-3

ICPC-2
- 18 languages
- Various licences
- Universal
- Endorsed by WHO
- Terminologies
### ICPC Story

<table>
<thead>
<tr>
<th>3 components coming from 3 gathered classifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Symptoms and complaints</strong></td>
</tr>
<tr>
<td><strong>Process</strong></td>
</tr>
<tr>
<td><strong>Diagnoses</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reason for Encounter Classification</th>
<th>International Classification of Process in Primary Care</th>
<th>International Classification of Health Problem in Primary Care 1&amp; 2 edition, defined &amp;</th>
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</thead>
<tbody>
<tr>
<td>R F E C</td>
<td>1981</td>
<td>1979</td>
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</tbody>
</table>

#### 17 chapters

- 15 somatic
- 1 Psychologic
- 1 Social

#### ICPC

- **1987** ICPC
- **1998** ICPC 2

Revision and inclusion of criteria and definitions

- **2005** ICPC 2 R
  - Revised transcoding to ICD-10

**Example**: ICPC 2 R
ICPC orders the domain of primary care (family medicine)…
.. and allows the coding of
encounters in an episode of
 care structure
ICPC-2 Bi-Axial structure

- 17 alpha-coded chapters based on body systems
- 7 identical components, with rubrics bearing a two-digit numeric code
ICPC CHAPTERS

A  General and unspecified
B  Blood/bloodforming organs, lymphatics (spleen, bone marrow)
D  Digestive
F  Eye (Focal)
H  Ear (Hearing)
K  Circulatory
L  Musculoskeletal (Locomotion)
N  Neurological
P  Psychological
R  Respiratory
S  Skin
T  Endocrine, metabolic and nutritional (Thyroid)
U  Urological
W  Pregnancy, child bearing, family planning (Women)
X  Female genital (X-chromosome)
Y  Male genital (Y-chromosome)
Z  Social problems
ICPC COMPONENTS
(standard, if possible, for all chapters)

1. Symptoms and complaints 1-29
2. Diagnostic and preventive procedures 30-49
3. Treatment procedures, medication 50-59
4. Test results 60-61
5. Administrative 62
6. Referral and other reasons for encounter 63-69
7. Diseases:
   - infectious diseases
   - neoplasms
   - injuries
   - congenital anomalies
   - other specific diseases

70-99
Chapters and components together form a ‘chessboard’..
ICPC-2 Structure: Chapters

- A - general
- B - blood, immune system
- D - digestive
- F - eye
- H - ear (hearing)
- K - circulatory
- L - musculoskeletal
- N - neurological
- P - psychological

- R - respiratory
- S - skin
- T - metabolic, endocrine
- U - urological
- W - women’s health, pregnancy, family plan
- X - female genital
- Y - male genital
- Z - social problems
Structure of ICPC: chapters and components

<table>
<thead>
<tr>
<th>Components</th>
<th>Chapters</th>
</tr>
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<tbody>
<tr>
<td>\</td>
<td>A B D F H K L N P R S T U W X Y Z</td>
</tr>
<tr>
<td>1. Symptoms and complaints</td>
<td></td>
</tr>
<tr>
<td>2. Diagnostic, screening prevention</td>
<td></td>
</tr>
<tr>
<td>3. Treatment procedures, medication</td>
<td></td>
</tr>
<tr>
<td>4. Test results</td>
<td></td>
</tr>
<tr>
<td>5. Administration</td>
<td></td>
</tr>
<tr>
<td>6. Other</td>
<td></td>
</tr>
<tr>
<td>7. Diagnoses, diseases</td>
<td></td>
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</table>

Chapter List:
A. General
B. Blood, blood form
D. Digestive
F. Eye
H. Ear
K. Circulatory
L. Musculoskeletal
N. Neurological
P. Psychological
R. Respiratory
S. Skin
T. Metabolic, endocrine, nutritional
U. Urinary
W. Pregnancy, child bearing, family planning
X. Female genital
Y. Male genital
Z. Social
• Implies opening of the rubrics of ICPC

- Z25 ASSAULT & HARMFUL EVENT
  - bewitchment
  - bewitchment with pig's liver
  - damage from malediction
  - desecration of grave by witches
  - dupa spells
  - evil influence ns
  - harm from fighting
  - harm from troublesome spirits
  - harm from war
  - harm from witchcraft
  - harm from witches' familiars
  - makgoba bewitchment
  - negative condition ns
  - possession by spirits
  - possession by bad spirits
  - possession by evil spirits

Example of opening of an ICPC rubric

ICPC adaptability

- Paper & Pencil
  - Mnemotechnics
  - Central coding

- Electronic
  - Terminologies
  - Automatic coding

1987 to 2007
Studies

- Clinical: transversal or longitudinal
- Electronic patient record
- Huge database or personal one
- Quality assurance
- Documents indexing
..THE PATIENT’S PROBLEM LIST

(8 episodes of care that are considered important; see Glossary: problem list)

<table>
<thead>
<tr>
<th>ICPC</th>
<th>ICD10</th>
<th>Label</th>
<th>N</th>
<th>First</th>
<th>Last</th>
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<tbody>
<tr>
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<tr>
<td>A85</td>
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<td>Adverse effect medical agent</td>
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<td>21-04-1995</td>
<td>21-04-1995</td>
</tr>
</tbody>
</table>

From Transhis, Amsterdam
JKS 593 CONSECUTIVE PATIENTS
11 doctors in Belgium 1991, Distribution of 4,000 contacts
Distribution of the 624 P diagnosis, same health centre

The workload in mental health in GP/FM

Liege, Belgium, on 10440 episodes, 1999
Comparison of chapter P diagnosis of two family doctors each in solo practice

A new insight in GP practice allowing quality assessment and alternative teaching process

Courtesy of Dr Joseph Huberty, Ciney, Belgium
200 Primary care practitioners in 5 years

Courtesy of Dr Alejandro Lopez, Buenos Aires
998 abstracts, ICPC chapters distribution
EPISODES

Conception-Réalisation

Dr Jacques Humbert
Dr Jacques Hidier
Dr Marc Jamoulle
Dr Michel Roland

Adapted from Lamberts
<table>
<thead>
<tr>
<th>Life story</th>
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<td>K73 cardiac congen. anomaly</td>
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<tr>
<th>Life conditions</th>
<th>Death</th>
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<tr>
<td>FECONDATION</td>
<td></td>
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</table>

- Episode initiated or closed by the doctor
Episode initiated or closed by the doctor

K73 cardiac congen. anomaly
R71 Wooping cough

Life conditions

Death
K73 cardiac congen. anomaly
R71 Wooping cough
R82 Pleurisy
S87 Eczema
K73 cardiac congen. anomaly

R71 Wooping cough

R82 Pleurisy

S87 Eczema

P76 Depression

Life conditions

- Episode initiated or closed by the doctor
- Episode initiated or closed by the patient
- Episode initiated or closed by doctor - patient consensus

Death
Life story

K73 cardiac congen. anomaly

R71 Wooping cough
R82 Pleurisy
S87 Eczema

P76 Depression
P15 Alcool
P17 Tobacco

Life conditions

FECONDATION

Episode initiated or closed by the doctor

Death

Episode initiated or closed by the patient

Episode initiated or closed by doctor - patient consensus
**Life story**

- **K73**
  - **R71**
  - **R82**
  - **S87**

- **P76**
  - **P15**
  - **P17**
  - **Z11**

**K73 cardiac congen. anomaly**

- **R71** Wooping cough
- **R82** Pleurisy
- **S87** Eczema

- **P76 Depression**
- **P15** Alcool
- **P17** Tobacco

- **P15 P17**

- **R82 Pleurisy**

- **P77 Suicide**

- **D97 Cirrhosis**

**Life conditions**

- Episode initiated or closed by the doctor
- Episode initiated or closed by the patient
- Episode initiated or closed by doctor - patient consensus

**FECONDATION**

**Death**
K73 cardiaque
congénital.
R71 Toux sifflante
R82 Pleurésie
S87 Éczéma
P76 Dépression
P15 Alcool
P17 Tabac
Z11 Malade
D97 Céphalées
T90 Diabète
P70 Démence
S87 Éczéma

**Histoire d'une vie**

**Épisode initié ou clos par le médecin**

**Épisode initié ou clos par consentement médecin-patient**

**Épisode initié ou clos par le patient**

**Épisode initié ou clos par médecin-patient consensus**

**Mort**

**Conditions de vie**

**Épisode initié ou clos par le médecin**

**Épisode initié ou clos par consentement médecin-patient**

**Épisode initié ou clos par le patient**

**Épisode initié ou clos par médecin-patient consensus**
This day

Life conditions

- Episode initiated or closed by the doctor
- Episode initiated or closed by the patient
- Episode initiated or closed by doctor - patient consensus

Life story

- K73
- R71
- R82
- S87
- P76
- P15 P17
- Z11
- P77
- D97
- T90
- P70
Conclusions

- ICPC used in an episode oriented registration provides a powerful tool for clinical use as well as teaching the epidemiology of primary care in undergraduate and post-graduate training.

- ICPC helps to define the content of family medicine.

- ICPC contributes to research.