

# WONCA Europe Paris 2007

## 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

Redundancy / Redndancy / Redndncy / Redndnc / Rdndnc / Rdnc

## 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'
- 41 members
- 25 countries
- 5 continents
- Preparing ICPC-3

## ICPC-2

- 18 languages
- Various licences
- Universal
- Endorsed by WHO
- Terminologies



Heidelberg 2006

**ICPC story**

3 components coming from 3 gathered classifications

<b>Symptoms and complaints</b>	<b>Process</b>	<b>Diagnoses</b>
<p><b>R F E C</b> Reason for Encounter Classification</p> <p><b>1981</b></p>	<p><b>IC-Proces-PC</b> International Classification of Process in Primary Care</p> <p><b>1985</b></p>	<p><b>ICHPPC</b> <b>1974</b> <b>ICHPPC-2-d</b> International Classification of Health Problem in Primary Care 1 &amp; 2 edition, defined &amp; <b>1983</b></p>

**17 chapters**

- 15 somatic
- 1 Psychologic
- 1 Social

**1987 ICPC**

**1998 ICPC 2**

Revision and inclusion of criteria and definitions

**2005 ICPC 2 R**

Revised transcoding to ICD-10



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:                                | 70-99 |
| - infectious diseases                       |       |
| - neoplasms                                 |       |
| - injuries                                  |       |
| - congenital anomalies                      |       |
| - other specific diseases                   |       |

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

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

## Chapter List:

- A. General
- B. Blood, blood formi
- D. Digestive
- F. Eye
- H. Ear
- K. Circulatory
- L. Musculoskel
- N. Neurologica
- P. Psychologic
- R. Respiratory
- S. Skin
- T. Metabolic, endocrine nutritional
- U. Urinary
- W. Pregnancy, child beari
- X. Female geni
- Y. Male genita
- 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**

Cridland JS,.Koonin S.  
Use of traditional medicines  
towards a classification.  
*S.Afr.Med J* 2001;**91**:489-91

# ICPC adaptability

- Paper & Pencil

1987

Mnemotechnic  
Central coding

- Electronic

2007

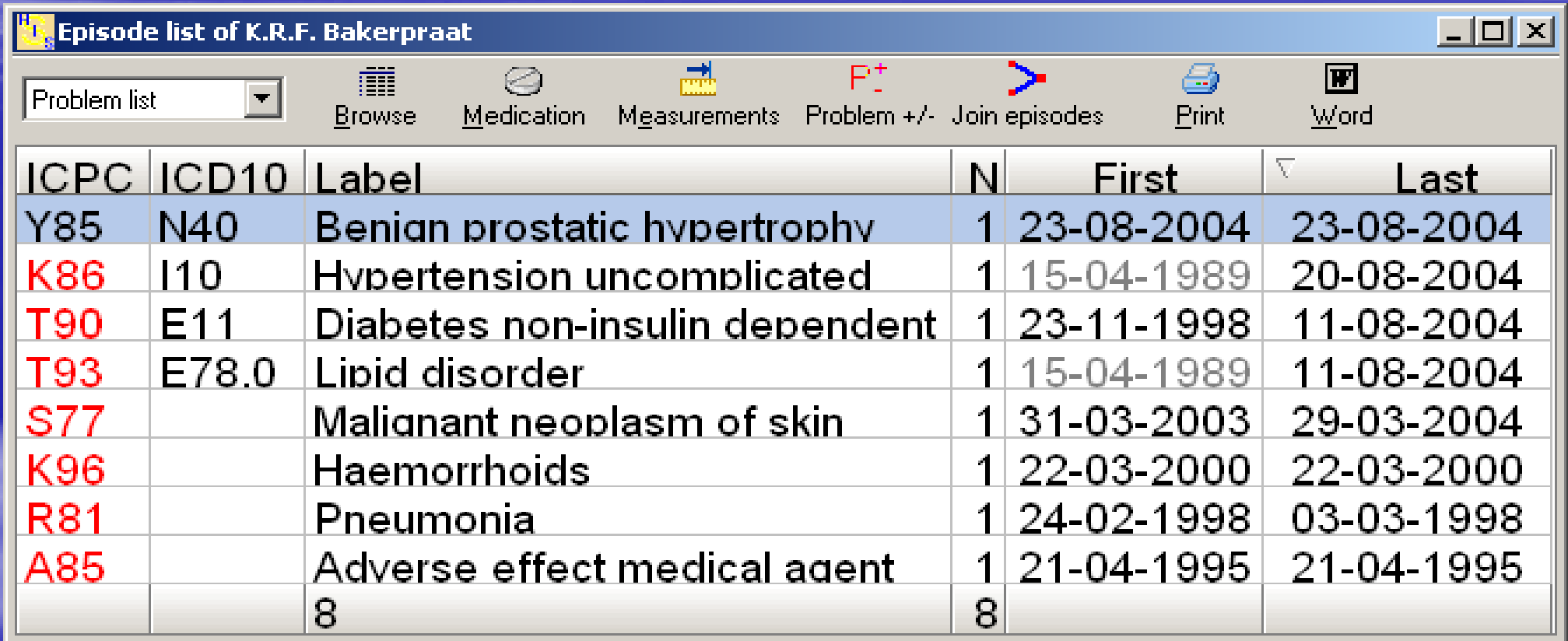
Terminologies  
Automatic  
coding

# 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)

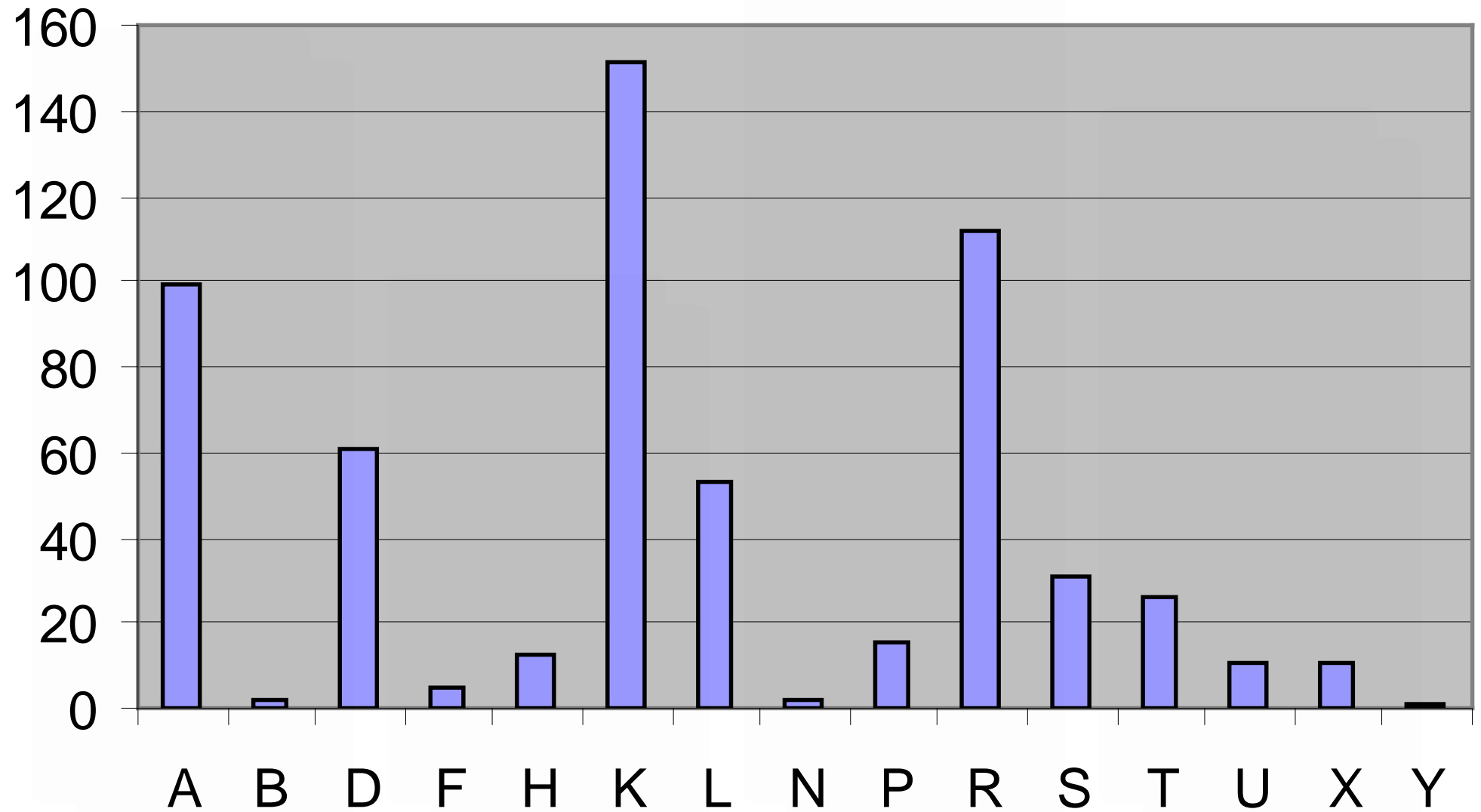


The screenshot shows a software window titled "Episode list of K.R.F. Bakerpraat". The window has a menu bar with "Problem list" and a toolbar with icons for "Browse", "Medication", "Measurements", "Problem +/-", "Join episodes", "Print", and "Word". Below the toolbar is a table with the following data:

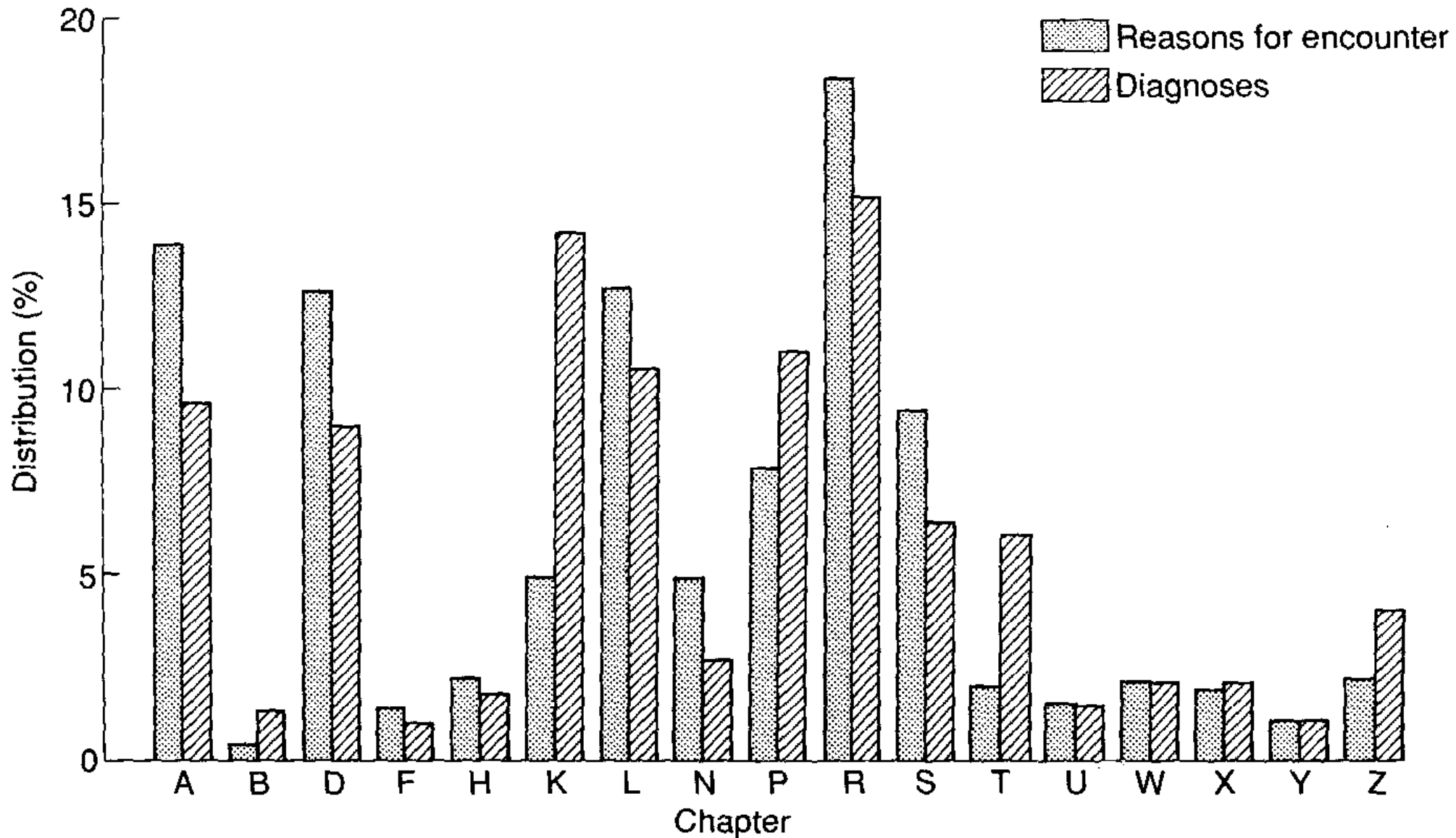
ICPC	ICD10	Label	N	First	Last
Y85	N40	Benian prostatic hypertrophy	1	23-08-2004	23-08-2004
K86	I10	Hypertension uncomplicated	1	15-04-1989	20-08-2004
T90	E11	Diabetes non-insulin dependent	1	23-11-1998	11-08-2004
T93	E78.0	Lipid disorder	1	15-04-1989	11-08-2004
S77		Malignant neoplasm of skin	1	31-03-2003	29-03-2004
K96		Haemorrhoids	1	22-03-2000	22-03-2000
R81		Pneumonia	1	24-02-1998	03-03-1998
A85		Adverse effect medical agent	1	21-04-1995	21-04-1995
		8	8		

From Transhis, Amsterdam

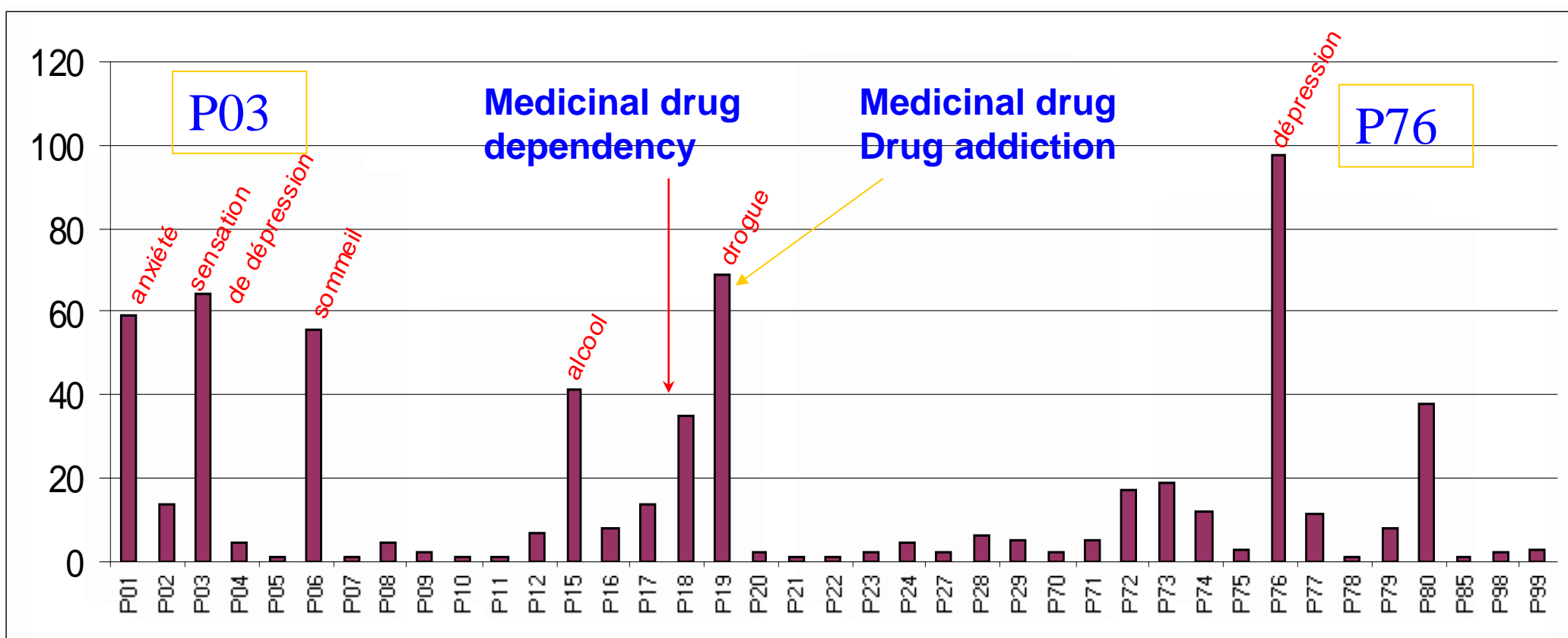
# JKS 593 CONSECUTIVE PATIENTS



# 11 doctors in Belgium 1991, Distribution of 4.000 contacts

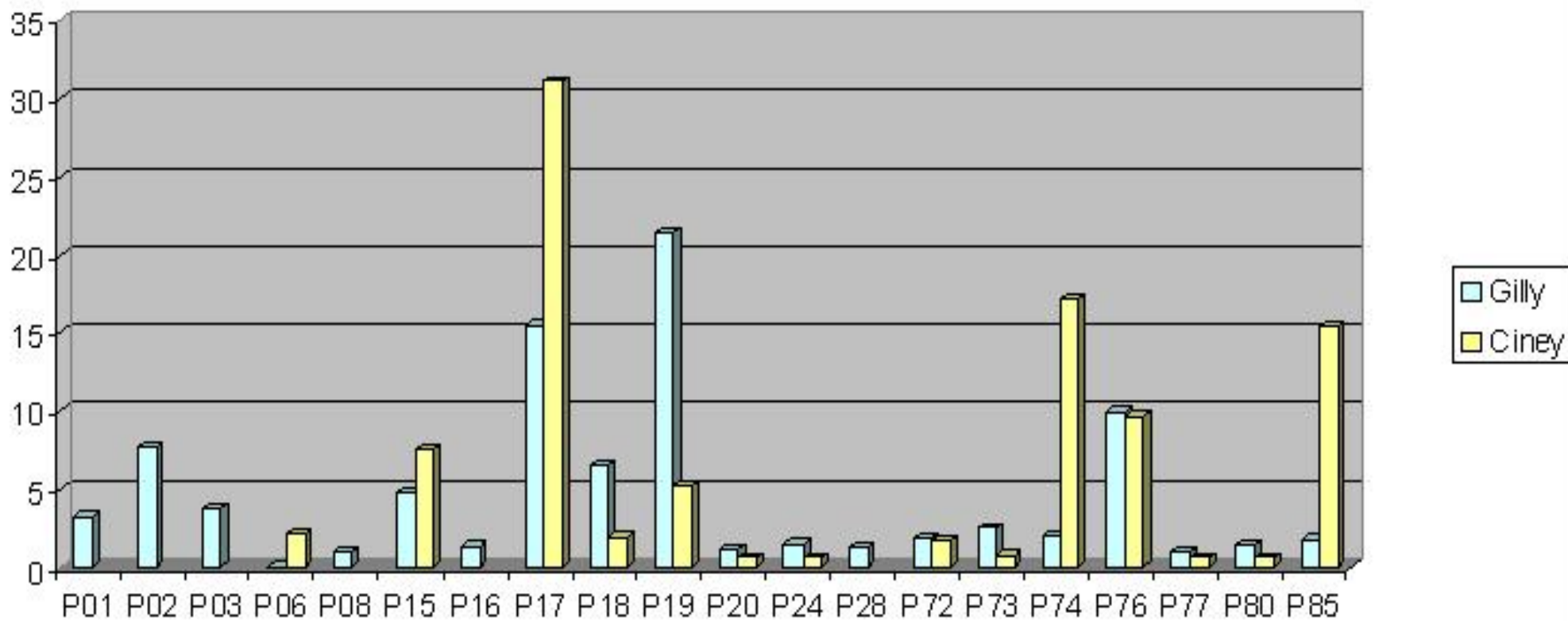


# Distribution of the 624 P diagnosis, same health centre



## The workload in mental health in GP/FM

Liege, Belgium, on 10440 episodes, 1999



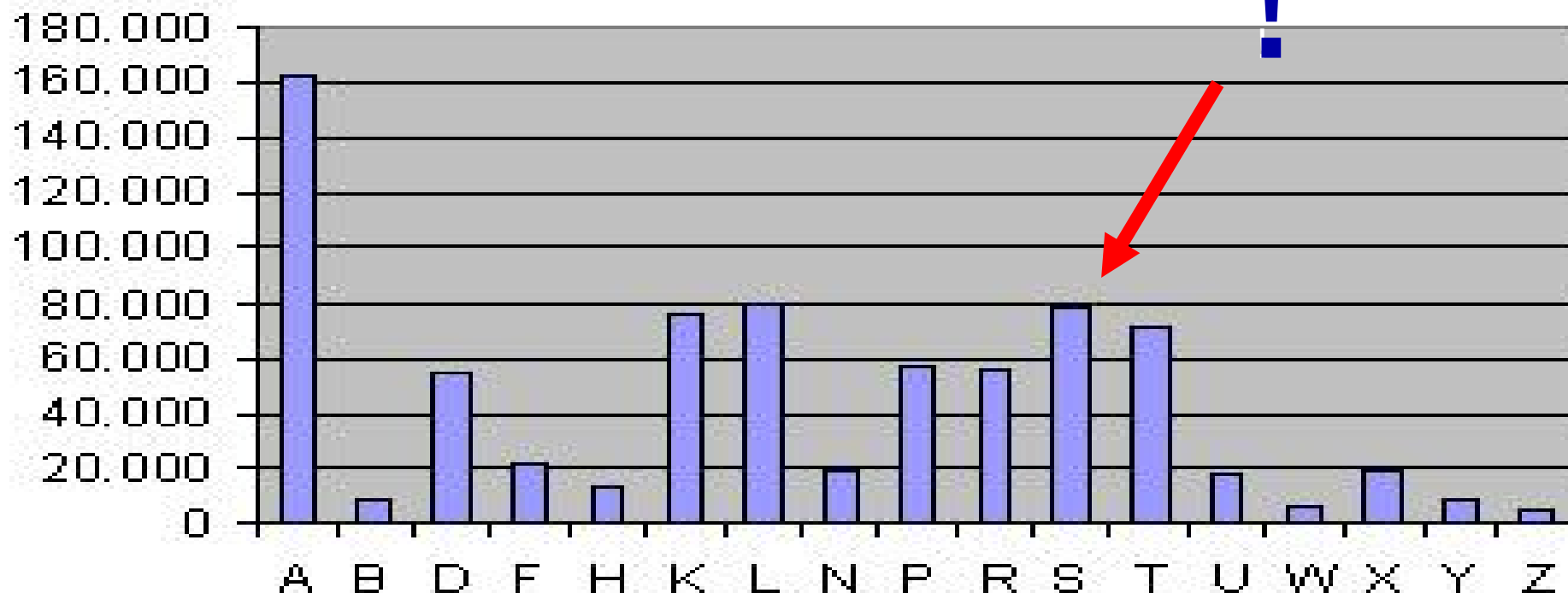
Comparison of chapter P diagnosis of two family doctors each in solo practice

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

Courtesy of Dr Joseph Huberty, Ciney, Belgium



## Distribution Buenos aires 1998 -2003 755.000 diagnosis

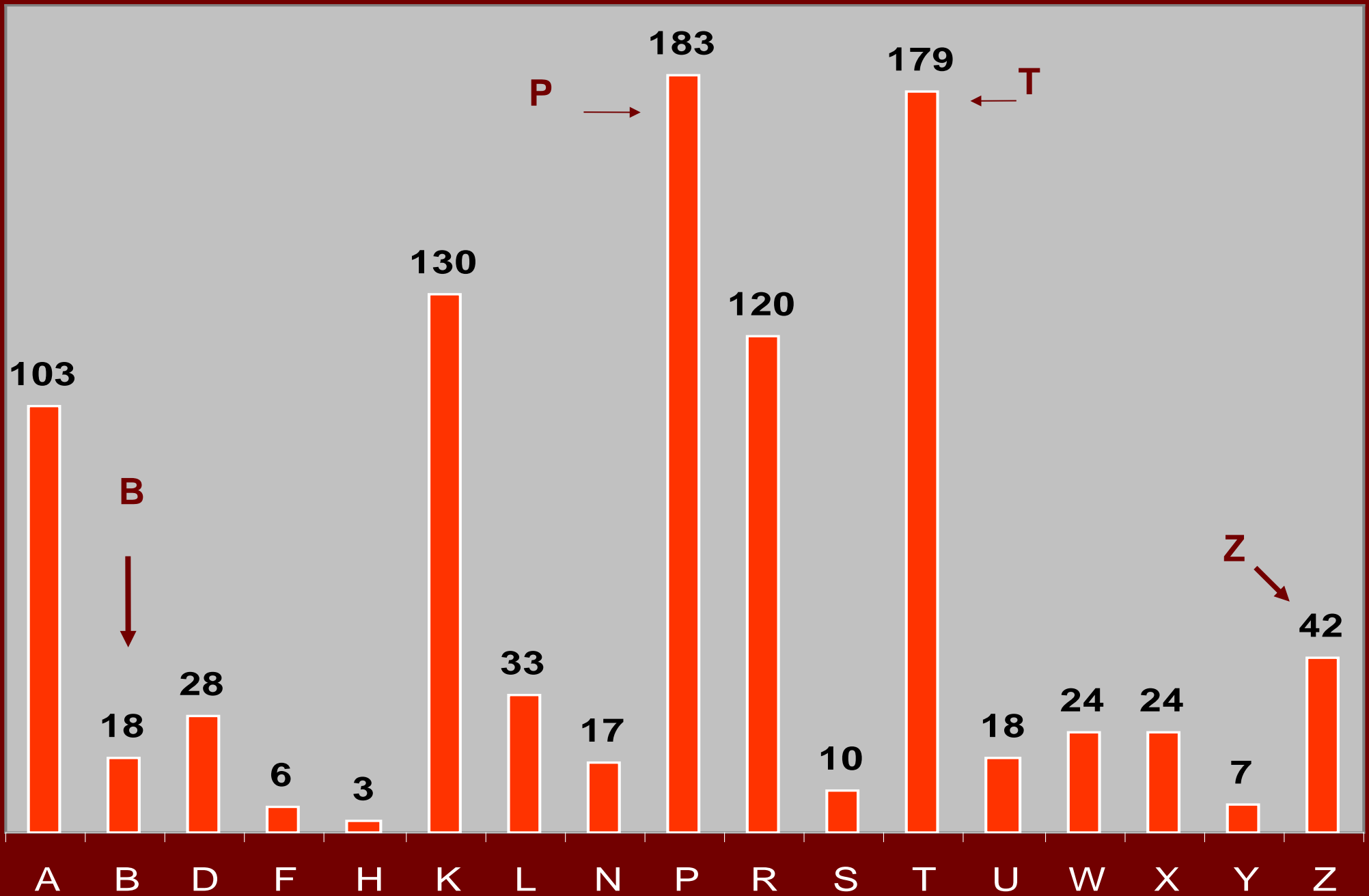


200 Primary care practitioners in 5 years

Courtesy of Dr Alejandro Lopez, Buenos aires

Wonca  
2007

# 998 abstracts, ICPC chapters distribution





# EPIISODES

Conception-Réalisation

*Dr Jacques Humbert*

*Dr Jacques Hidier*

*Dr Marc Jamouille*

*Dr Michel Roland*

Adapted from Lamberts

**CISP-Club**

**June 2000**

# Life story

**K 73**

**K73 cardiac  
congen. anomaly**

Life conditions

FECUNDATION

Death

 Episode initiated or closed by the doctor

# Life story

K 73

R71

K73 cardiac  
congen. anomaly

R71 Whooping  
cough

## Life conditions

FECUNDATION

Death

 Episode initiated or closed by the doctor

 Episode initiated or closed by the patient

 Episode initiated or closed by doctor – patient consensus

# Life story

K 73

R71

R82

S87

K73 cardiac  
congen. anomaly

R71 Whooping  
cough

R82 Pleurisy

S87 Eczema

## Life conditions

FECUNDATION

Death

 Episode initiated or closed by the doctor

 Episode initiated or closed by the patient

 Episode initiated or closed by doctor – patient consensus

# Life story

**K 73**

**R71**

**R82**

**S87**

**P76**

**K73 cardiac  
congen. anomaly**

**R71 Whooping  
cough**

**R82 Pleurisy**

**S87 Eczema**

**P76 Depression**

## Life conditions

**FECUNDATION**

**Death**

 Episode initiated or closed by the doctor

 Episode initiated or closed by the patient

 Episode initiated or closed by doctor – patient consensus

# Life story

K 73

R71

R82

S87

P76

P15 P17

K73 cardiac  
congen. anomaly

R71 Whooping  
cough

R82 Pleurisy

S87 Eczema

P76 Depression

P15 Alcohol  
P17 Tobacco

## Life conditions

FECUNDATION

Death

Episode initiated or closed by the doctor

Episode initiated or closed by the patient

Episode initiated or closed by doctor – patient consensus



# Life story

K 73

R71

R82

S87

P76

P15 P17

Z11

P77

K73 cardiac  
congen. anomaly

R71 Whooping  
cough

R82 Pleurisy

S87 Eczema

P76 Depression

P15 Alcohol  
P17 Tobacco

Z11 Being ill

P77 Suicide

## Life conditions

FECONDATION

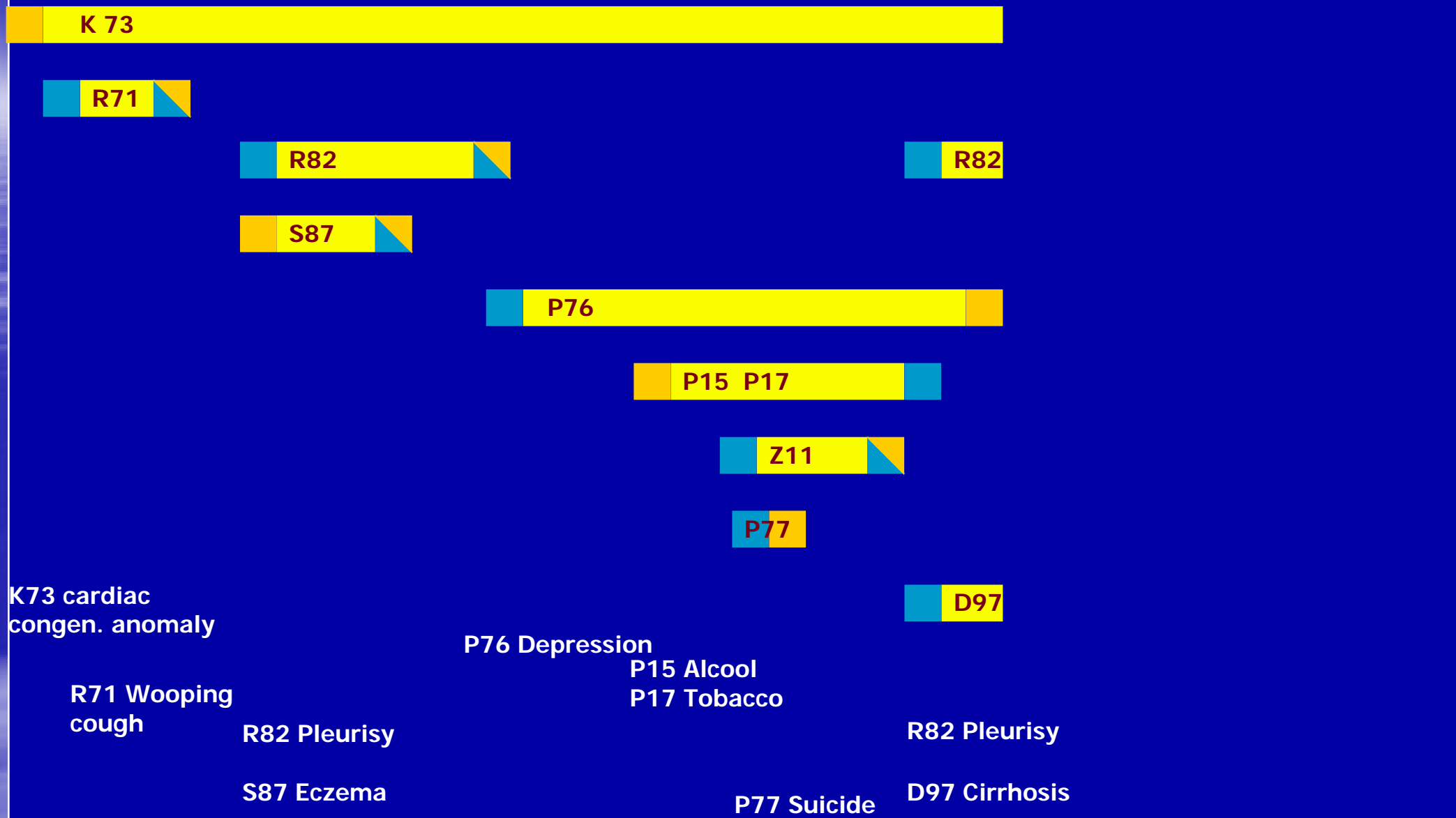
Death

Episode initiated or closed by the doctor

Episode initiated or closed by the patient

Episode initiated or closed by doctor – patient consensus

# Life story



## Life conditions

FECONDATION

Death

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

# Life story

K 73

R71

R82

S87

P76

P15 P17

Z11

P77

R82

Z11

D97

K73 cardiac  
congen. anomaly

R71 Whooping  
cough

R82 Pleurisy

S87 Eczema

P76 Depression

P15 Alcohol  
P17 Tobacco

P77 Suicide

Z11 Being ill

R82 Pleurisy

D97 Cirrhosis

Z11 Being ill

Life conditions

FECONDATION

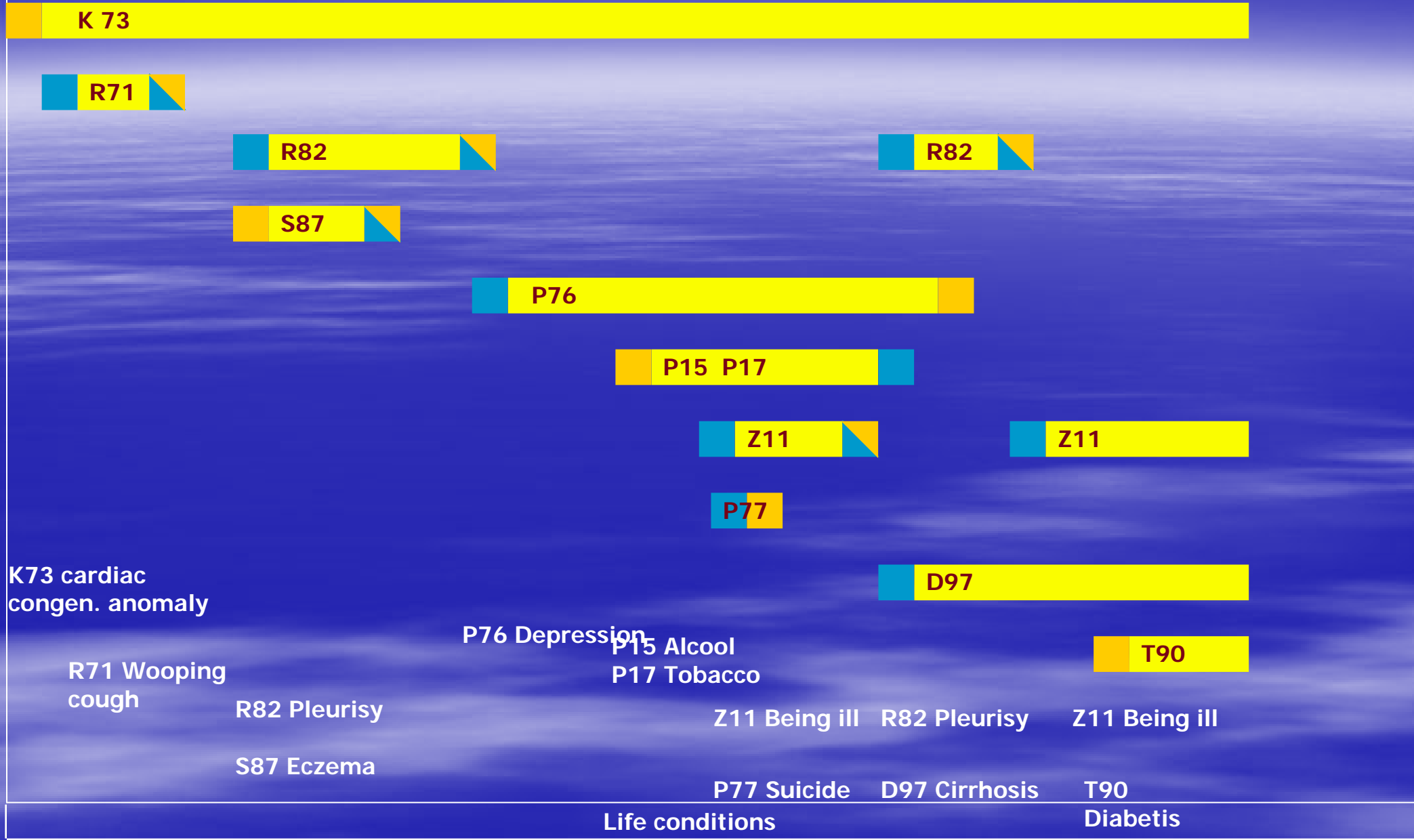
Death

Episode initiated or closed by the doctor

Episode initiated or closed by the patient

Episode initiated or closed by doctor – patient consensus

# Life story



FECUNDATION

Death



# histoire d'une vie

K 73

R71

R82

S87

P76

P15 P17

Z11

P77

R82

Z11

D97

T90

P70

K73 cardiac  
congen. anomaly

R71 Whooping  
cough

R82 Pleurisy

S87 Eczema

P76 Depression

P15 Alcohol  
P17 Tobacco

Z11 Being ill

P77 Suicide

R82 Pleurisy

D97 Cirrhosis

Z11 Being ill

T90 Diabetes

P70 Dementia

Life conditions

FECUNDATION

Death

Episode initiated or closed by the doctor

Episode initiated or closed by the patient

Episode initiated or closed by doctor – patient consensus

Life story

K 73

R71

R82

S87

P76

P15 P17

Z11

P77

R82

Z11

D97

T90

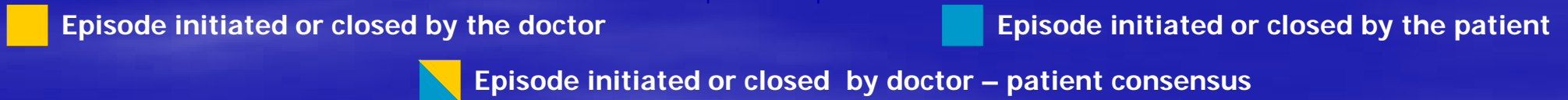
P70

This day □

Life conditions

FECUNDATION

Death



# Conclusions

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- 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**