A CASE-STUDY OF A CLINICAL KNOWLEDGE MANAGEMENT

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Global Forum, Athens 21,22 oct. 2008

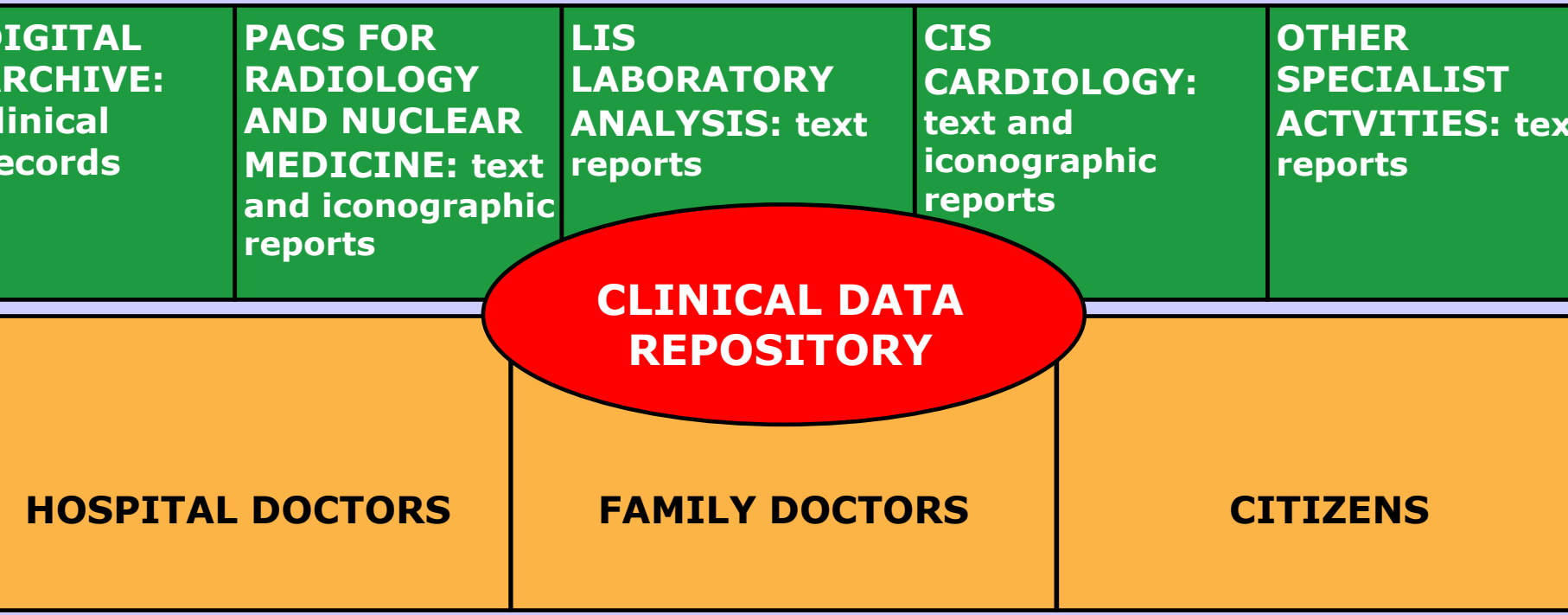
n.o. 239.832 inhabitants

n.o. 2.598 doctors, nurses, technicians

n.o. 800 beds in two hospitals

Budget 2008: € 390.000.000,00

OUR CLINICAL DIGITAL SYSTEM



THE CLINICAL INDIVIDUAL ARCHIVE

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Versione grafica | alto contrasto | solo testo A A A

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CLINICAL INDIVIDUAL DIGITAL ARCHIVE

Healthcare in your pocket!That is to give all patients full knowledge of their clinical records, treatments and diagnostic tests: this is the aim of the PIC project, a web-based application that lets the patient have real-time access to all textual and iconographic data related to screenings and treatments occurred during his/her hospitalisation, clinical examination, surgical procedure, or ER admittance.

PIC is the online individual clinical-record archive, fully updated and accessible from everywhere and at any time, with a personal authentication method in order to ensure complete user security and privacy needs.

PIC can be read in four languages, in order to be accessed effectively from any foreign country by the patient as well as by local physicians and/or healthcare facilities.

Portabilità Individuale Clinica

Clinical Individual Digital Archive

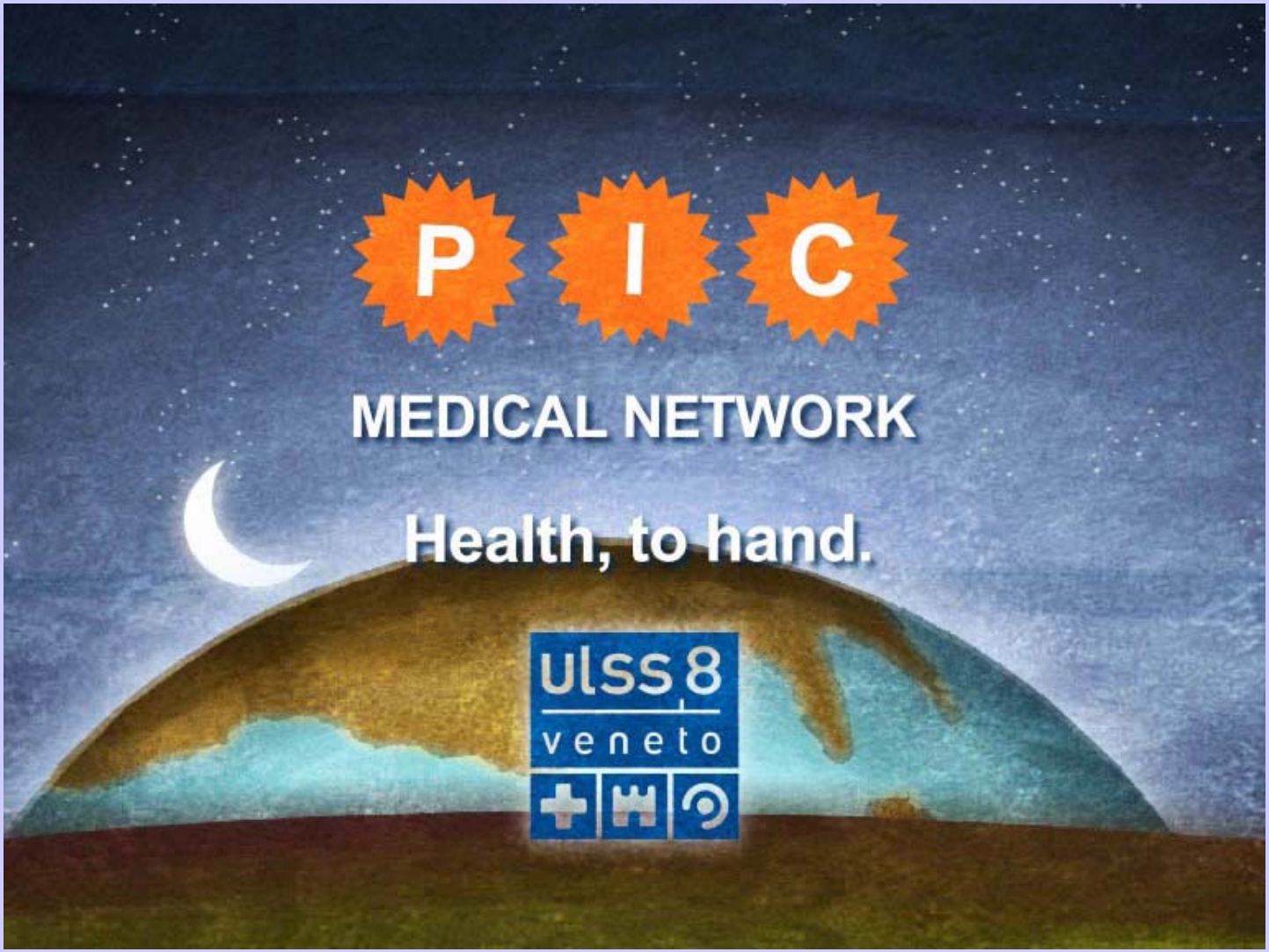
download multimedia presentation

download descriptive documentation

download card request personal password

Accesso PIC

NHS personal number | Tax Code | Password | Enter


P I C
MEDICAL NETWORK
Health, to hand.
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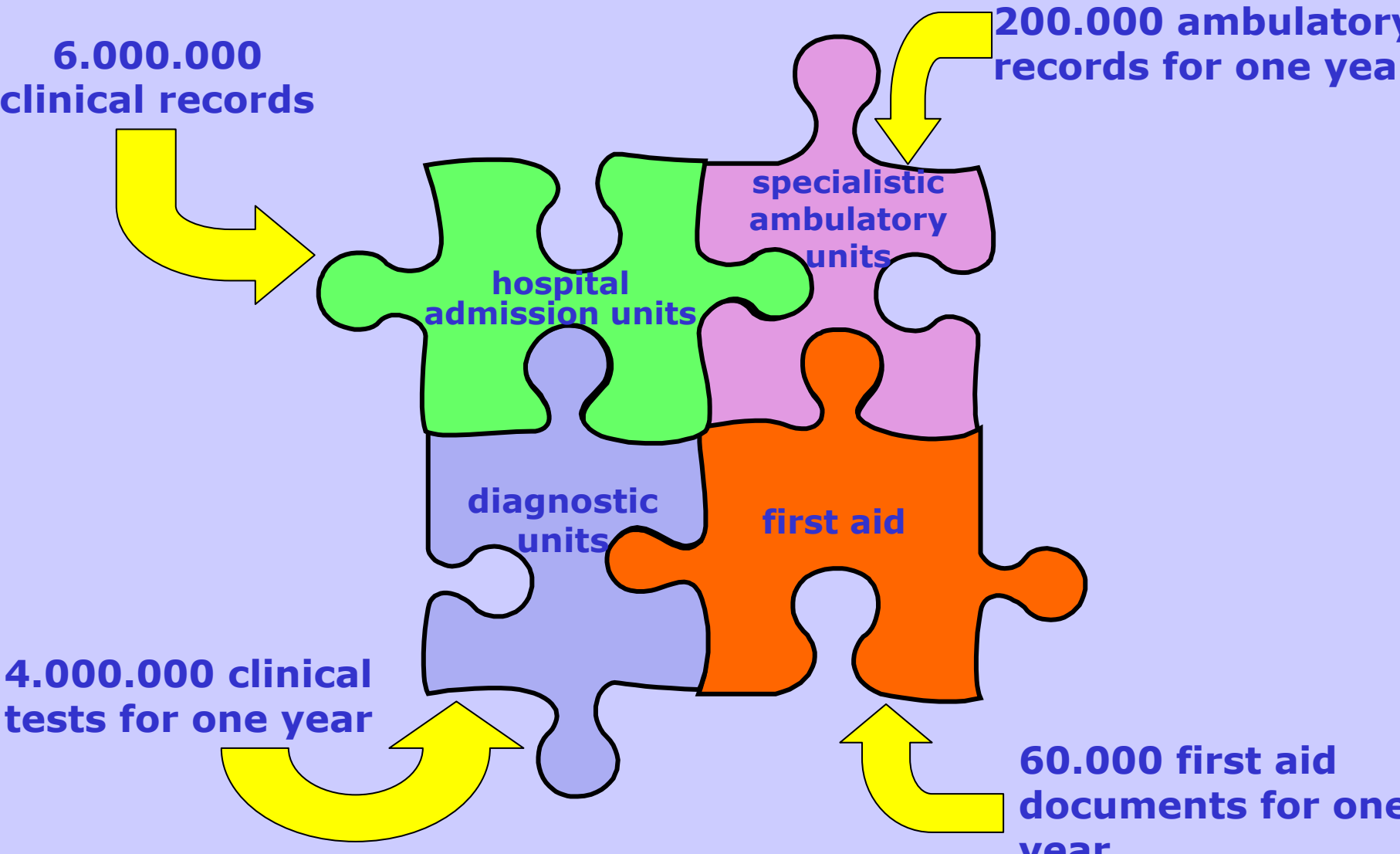
DOCUMENTS IN THE CLINICAL DATA REPOSITORY



THE KNOWLEDGE MANAGEMENT AND THE CLINICAL DOCUMENTS OF TWO HOSPITALS

MEETING K.M.

A data clinical repository sometimes is like a closed strong-box.

We need an information immediately, but we don't know the way to find it.

We don't want to see all clinical records of a patient, but only

- his blood test
- or the same data in the previous tests
- or the same data of other people, according to a standard classification, etc.

And then?

KNOWING HEALTH CARE NEEDS

A person comes to the Hospital and the First Aid phisician check unconsciousness, fever and then he supposes alcol or drugs poisoning, but the tests do not put it in evidence.

When the patient wakes up the phisician get more information and knows that he didn't get meningococcic vaccine.

Each phenomenon remains inexpicable in a certain time, to a certain kind of observer, till the observation field is not related enough to include the enviroment in which it shows itself completely.

EMERGING NEEDS
TARGET FOR A CLINICAL KNOWLEDGE MANAGEMENT

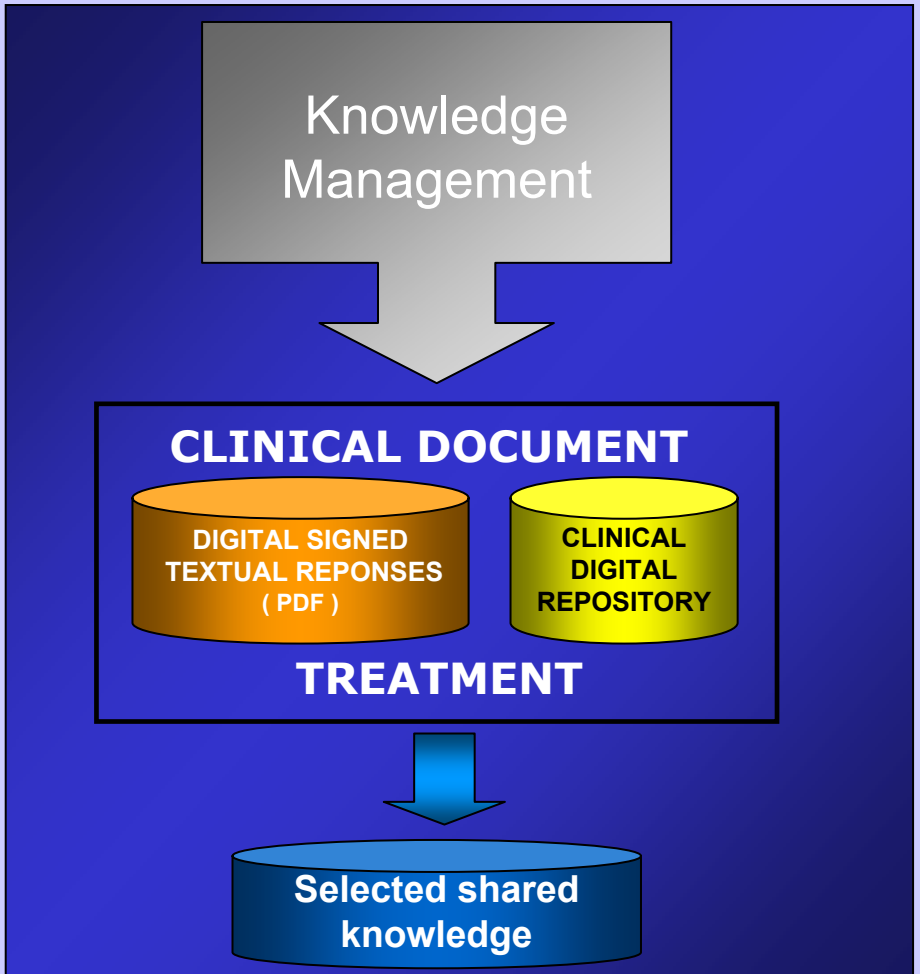
- Reduction waiting of clinical responses
- Increase health care services quality
- Reduction costs

lealth care system has some important advantages thanks to a nowledge management applied to a clinical documental system:

- Supporting medical decisions for the diagnostic-therapeutic multiprofessional cooperation;
- Supporting doctors for an individual diagnosis with some longtime clinical data;
- Supporting doctors for the benchmarking of international protocols;
- Increasing evidence of clinical case studies and medical researches;
- Increasing intangible assets for the governance of the epidemiological and biomedical innovation
- Reducing front office time-waiting;
- Reducing admissions and hospital costs

CLINICAL KNOWLEDGE MANAGEMENT

To share the knowledge coming from integrated clinical repository, the access is guaranteed by a KM system with:



- Ontologic knowledge treatment (to use a specific language in a certain enviroment), with a progressive enrichment of the system thesaurus;
- Morphological, syntactical and terminological analysis to assimilate every textual element (verbs, conjunctions, puntuation, meaning of a numeric data, etc.);
- Logical programming:
  - To identify concepts from a text;
  - Semantic information classification (according the prevailing language) as regards selected preferred categories.

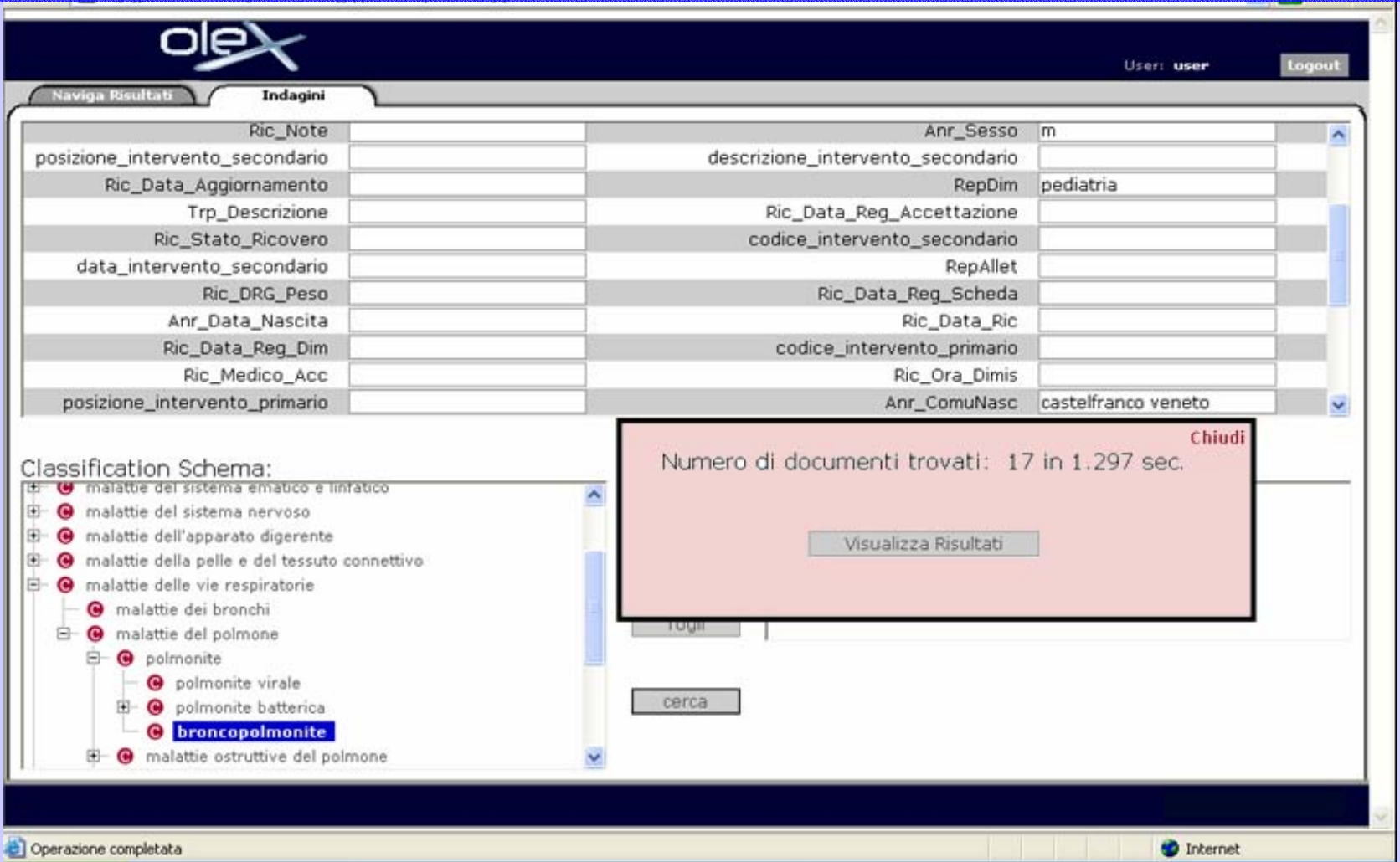
LEXICAL SEMANTICS

Different medical terms may be referred to the same medical concept (ankle – coxa) and may depend on the access system configuration (phisicians, nurses, ecc.) as well as on the specialistic language evolution (mental deseases in DSM IV).

Knowledge management system recognizes with synonimous, rethorical and other kind of relationships the terms that belong to the same shared organization concept/class.

Increases human and health organization memory and therefore their knowledge.

A STUDY FOR MALE CHILDREN WITH BRONCHOPNEUMONIA THAT LIVE IN THE SAME TOWN



http://10.10.20.60 - Risultati Esami - Microsoft Internet Explorer

Assistito [redacted] (Nato il 23/03/2000)

MONITORING OF HAEMOGLOBIN TEST FOR A PATIENT

Esami: Emoglobina

Data Inizio: 01/01/2007 Data Fine: 30/10/2007

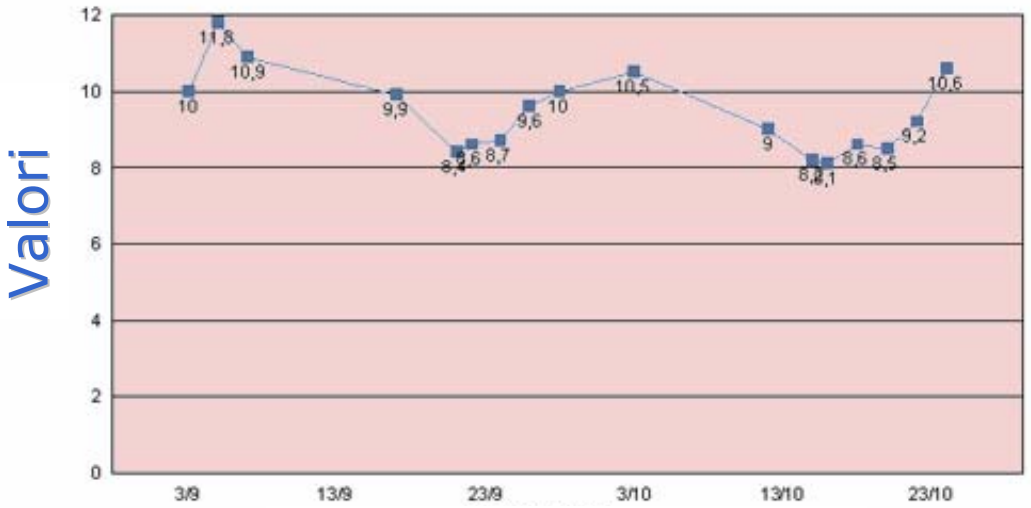
Visualizza

EMOGLOBINA

DATA INIZIO **DATA FINE PERIODO**

GRAFICO DEI RISULTATI IN ORDINE CRONOLOGICO

Data dell'Esame	Valore
03/09/2007	10
05/09/2007	11.8
07/09/2007	10.9
17/09/2007	9.9
21/09/2007	8.4
22/09/2007	8.6
24/09/2007	8.7
26/09/2007	9.6
28/09/2007	10
03/10/2007	10.5
12/10/2007	9
15/10/2007	8.2
16/10/2007	8.1



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CASTELFRANCO HOSPITAL

H

MONTEBELLUNA HOSPITAL

120 HOSPITAL UNITS

THE ACCESS TO C.D.R.

CLINICAL DATA REPOSITORY

HOSPITAL MANAGEMENT	ADMISSION UNITS	FIRST AID	OPERATING ROOMS	AMBULATORIES

350 users with access by individual smart card

THANKS !

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