

## **Informatics supervision of the private ambulatory health data in Romania**

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### **Summary**

The medical system reform in Romania provides the achievement of diseases diagnosis and treatments inside of medical private offices. The support of the activity in medical private offices cannot be realized without specialized informatics tools, having as core a data base, a supervising system, an assisted decision system, and documentation elements such as: treatment diagrams, specific drugs, results of medical research. The medical Informatics Department, Faculty of Dentistry, “Carol Davila” University of Medicine and Pharmacy, Bucharest, participated to the achievement of a research project that proposed to develop an informatics program – BDENTRO – to help the teaching staff and the students of dentistry universities to establish the diagnosis and treatments. This system was released in 2001, according to drawing up the methodology for research projects. BDENTRO was realized according to the medical reform strategy, to improve the quality of life, and provides a modern instrument for training the students in dentistry. BDENTRO can be adapted in a program designated to the dentists working in private offices for surveying and treating dental diseases.

**Key words:** electronic health record, dental software, medical informatics, informatics supervision.

### **Introduction**

The medical system reform in Romania brought deep changes in medical assistance and services. The health policy reform in Romania had two major objectives:

1) privatization of the state medical units and appearance of the private dental offices;

2) elaboration of a social health insurance law. [1]

To accelerate and stimulate reform in medical and other fields, the instrument used by the government policy is Research –

Development and Innovation National Program (RDINP). This program releases in competition proposals of research – development and innovation projects. The “Carol Davila” University of Medicine and Pharmacy, Faculty of Dentistry, Medical Informatics Department evolves a contract for research – development project inside RDINP-RELANSIN program, the 4<sup>th</sup> sub-program, the Development of public services – PUBLIC SERVICES RELANSIN. This project is developing in collaboration with the Informatics Research National Institute and other two partners – a cardiology and

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oncology private offices. The title of the RELANSIN project is: “*Data base and decision assisted system for diagnosis and treatment supervision of social diseases in private ambulatory health*”. [2]

The main **objective** of the project was the elaboration of a database for cardiology and cancer ambulatory assistance as well as for dental assistance, a didactic pattern for teaching staff, students and young dentists.

## Material

At the same time with the appearance of the social health insurance law, in 2000, the health reform started, which requires the necessity of social health insurance institutions at different levels – district, town, village – in order to collect, administrate and distribute social health funds, to discount medical services carried out by practitioner doctors in ambulatory medical units, hospitals or emergency care. [1] According to Romanian Social Health Insurance Law no. 145/1997, each practitioner doctor from the social health insurance system has to conclude an individual contract with the territorial social health insurance institution. Medical services payment is made according to contracts between social health insurance institution and territorial medical units. [3]

State medical units – “polyclinics” – divided in smaller units, individual medical offices, in which specialists and family doctors offer medical assistance [4].

Ambulatory medical assistance has long-term supervision difficulties regarding treatment because of lack of database. It is more obvious for the specialized offices to diagnose and treat special social diseases, such as cancer or cardiovascular illness. Correct supervision of investigation, diag-

nosis and treatment of these diseases can be lightened up by informatics instruments [4].

Activities performed in private offices must be supported by specialized informatics systems, having as core a database, a surveying and an assisted decision component and a documentation one (treatment schemes, specific drugs, research results, etc.) [4].

## Method

Performing efficient medical services in private offices must have access to informatics systems. To develop the project, the methodology imposed by Research – Development and Innovation National Plan (RDINP) – RELANSIN Program and the methodology of informatics system with integrated databases was respected.

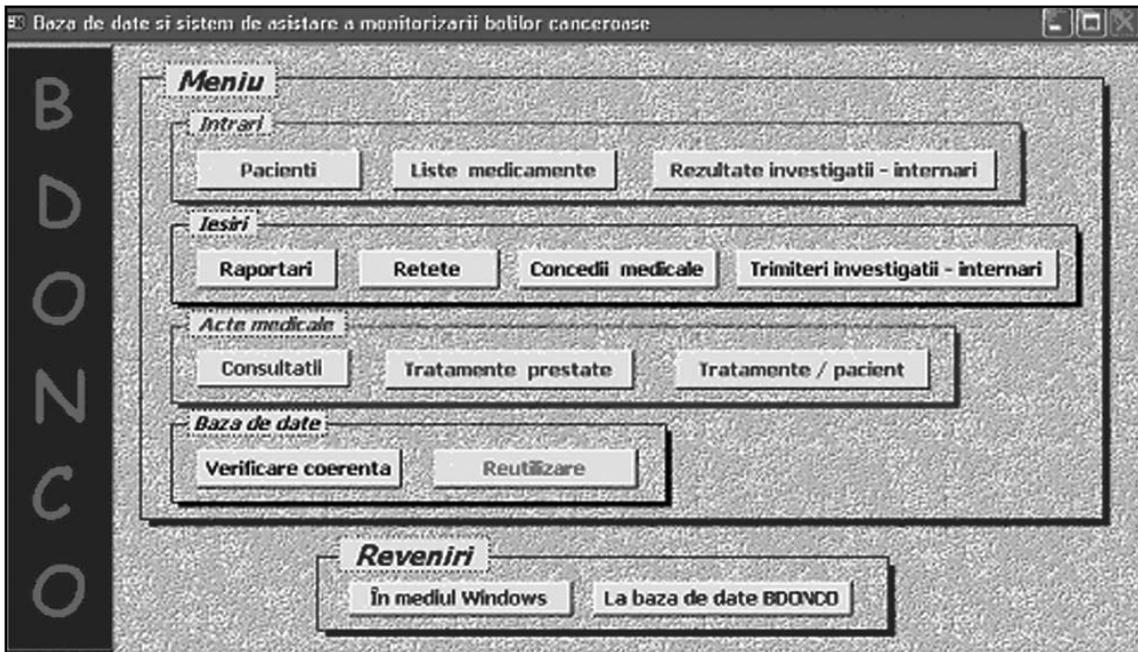
To develop this project they took into consideration:

- the methodology for elaborating of Informatics Directory Projects, approved by the National Informatics Committee;
- Euromethod – the European Union regulation concerning acquisition of informatics systems and components;
- The Quality Manual – National Institute for Research and Development in Informatics, the base of research and development activity of the project team. [5]

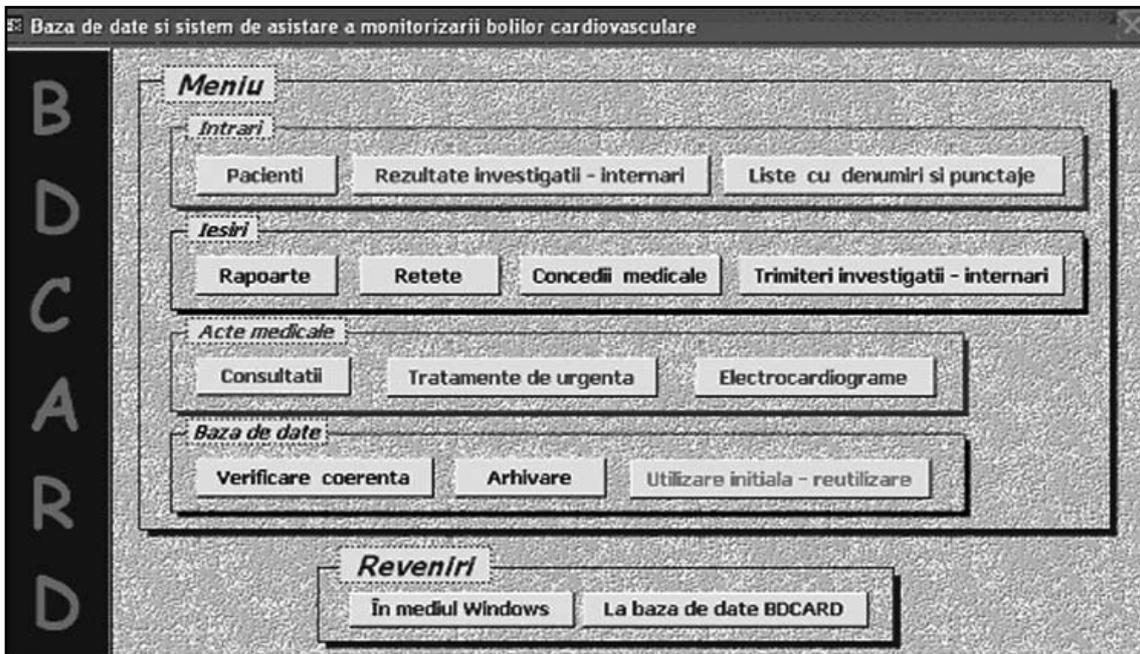
## Results

The informatics System gathers three medical informatics products designated to:

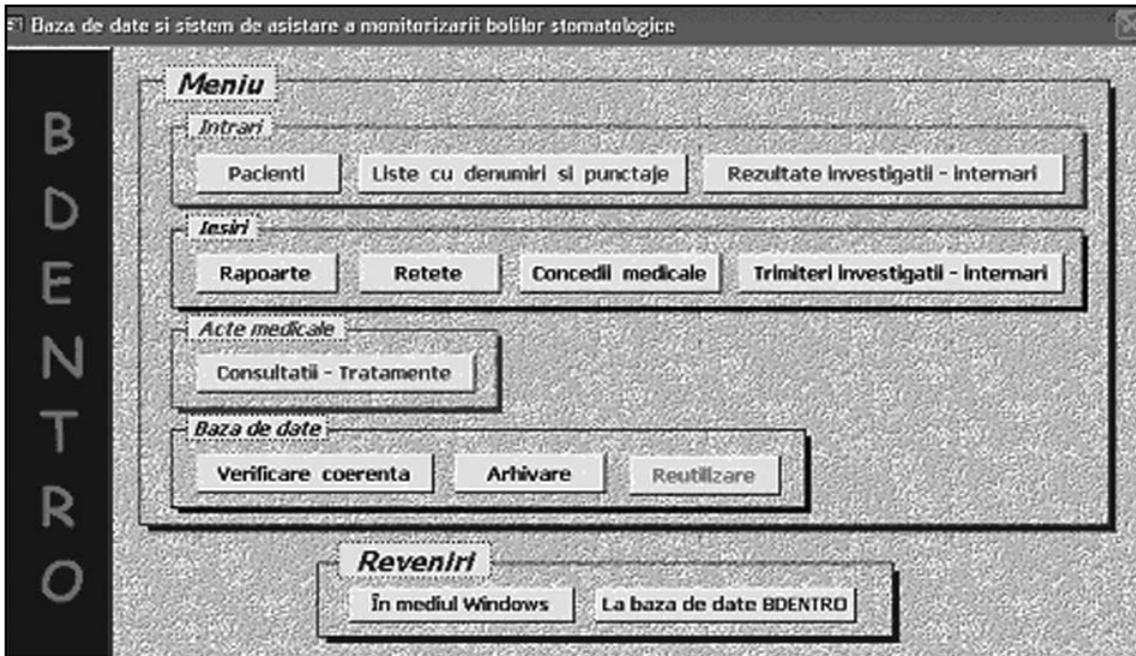
oncology – BDONCO



cardiology - BCARD

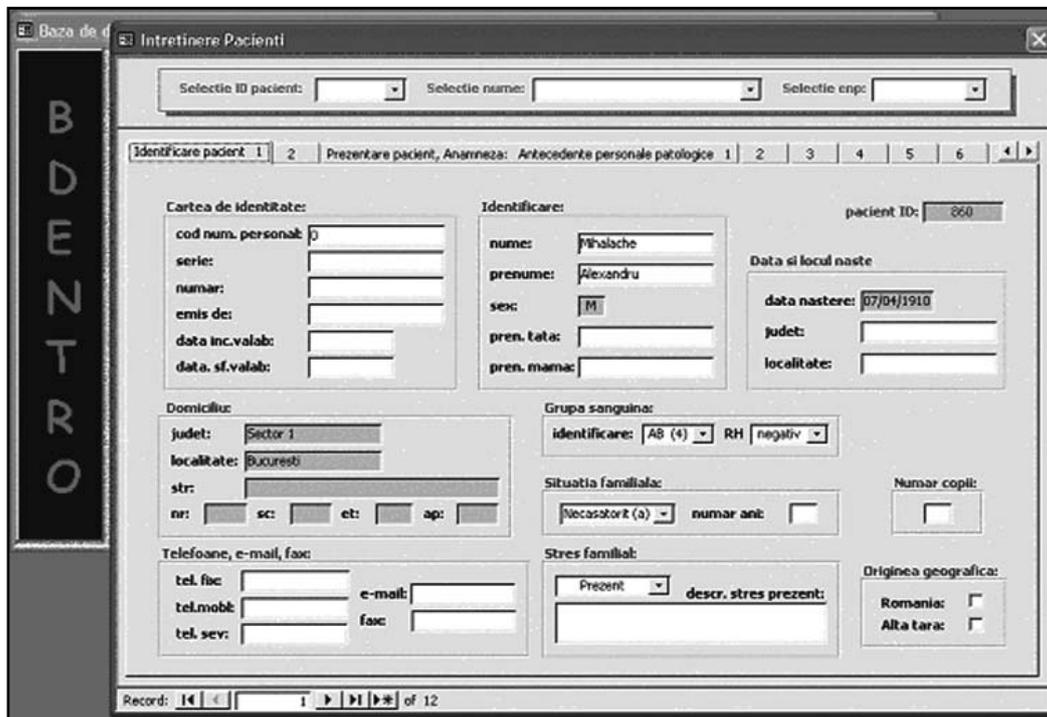


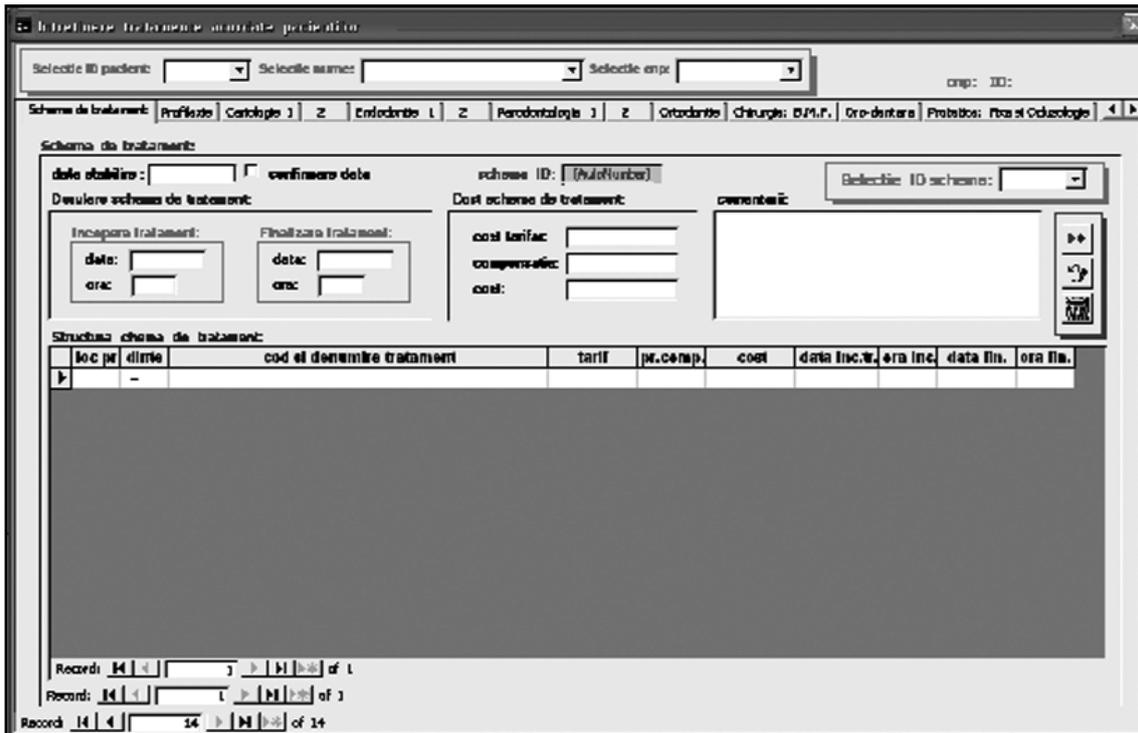
and dentistry - BDENTRO.



BDENTRO - the informatics system developed within the Medical Informatics Department by cooperation with teaching staff from other dentistry departments is a didactic pattern for teaching staff, students

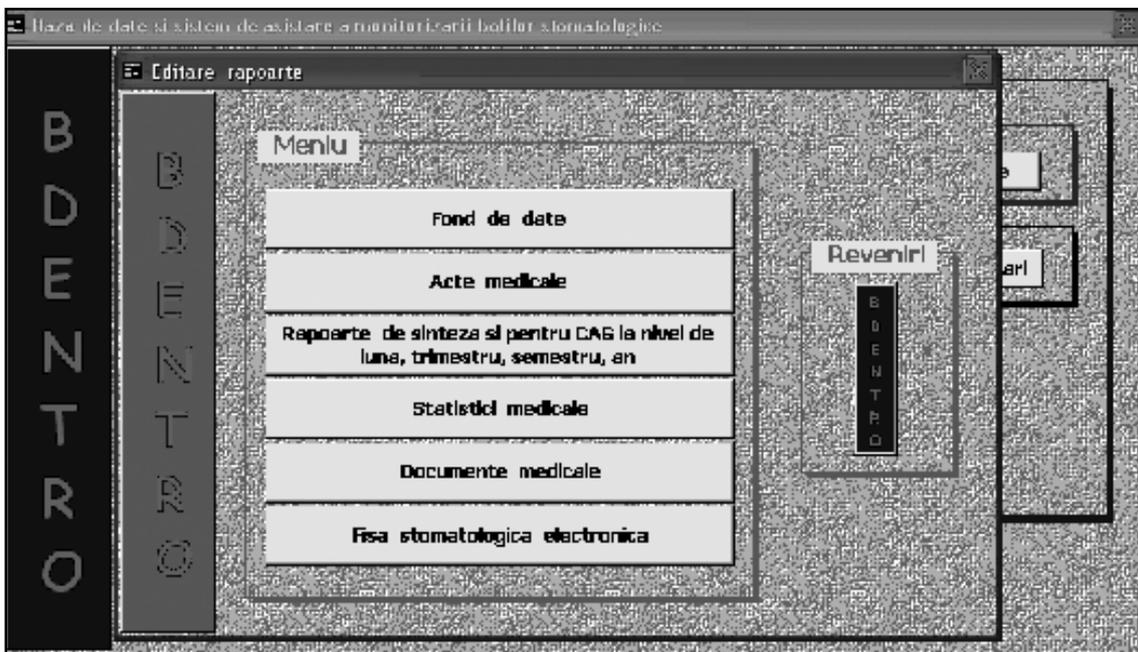
and young dentists. It contains a database organized on different information categories: input data (patients, doctors, health insurance companies, diseases, dental treatments, drugs, medical investigations);





output data (reports, medical documents); surveying system of the functions

regarding dental treatments and investigations; updating database.

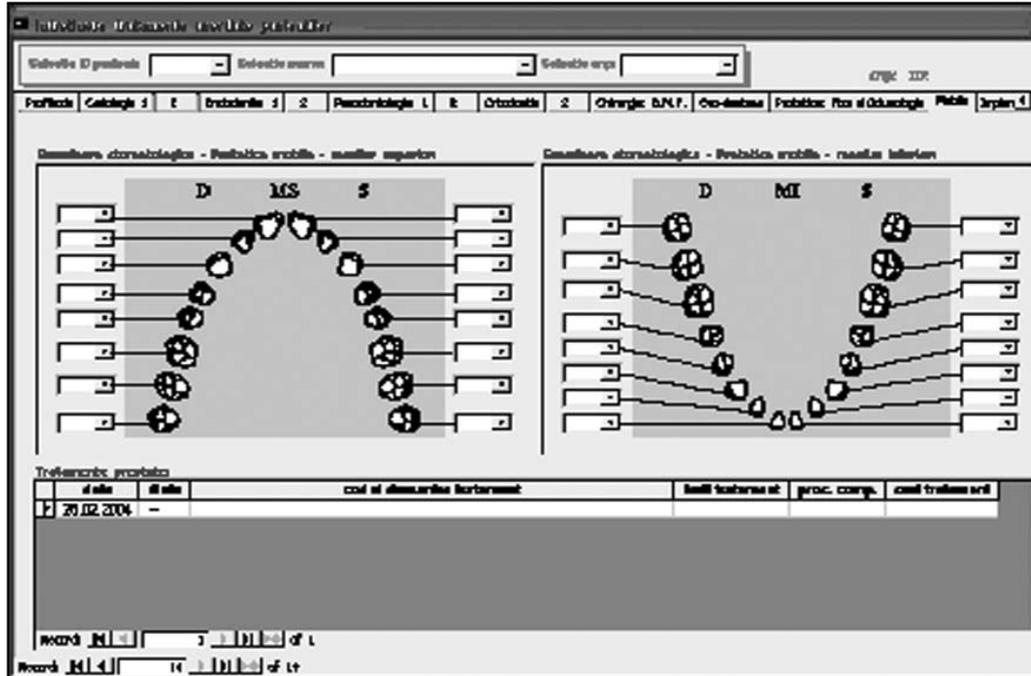
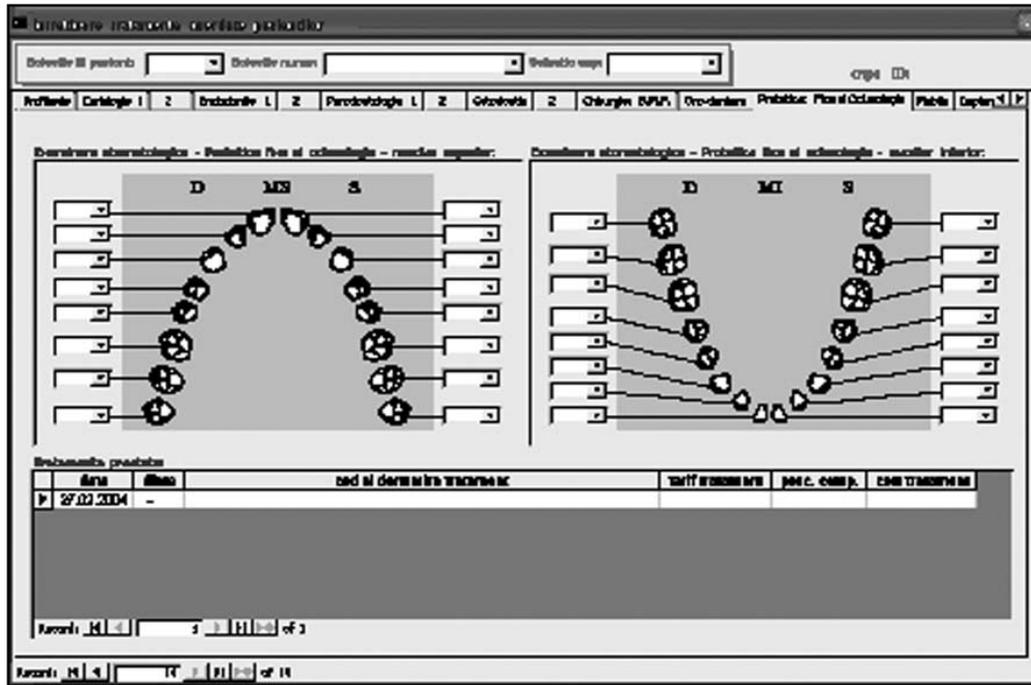


**Discussions**

The three medical informatics products – BDONCO, BDCARD and BDENTRO – may be considered valuable instruments which support medical staff from individual medical offices and also teaching staff from

medical universities in treating cancer, cardiovascular illness or oral diseases.

Regarding informatics product - BDENTRO – the electronic recording of oral health data complies to the standard European and international structure, according to the work scenario in a dental office.



The informatics system of achieving data is made by means of electronic forms, designed to be easily understood and completed.

## Conclusions

BDENTRO was realized according to the medical reform strategy, to improve the quality of life, and provides a modern instru-

ment for training the students in dentistry; it respects the standards of medical recording structure GEHR (Good European Health Record).

BDENTRO can be adapted in a program designated to the dentists working in private offices for surveying and treating dental diseases.

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