

# **CS POLIBASE**

**Medical Information System**

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## **FUNCTIONAL SPECIFICATION**

ООО «Сайбернетик Системс» 1996 - 2011

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## Configuration “Enterprise”

### **Functional specification**

CS Polibase system has modular structure and each module has many functions from one or more functional groups. This section contains a list of functional groups and functions.

The composition of the supplied modules contained in Section 3.

### **Patient journals and electronic medical record**

Registration of patients in a single electronic registry and quick search of patient information on a wide range of search criteria

Maintenance of medical records containing a complete history of the patient: receptions and contacts, electronic medical records (monitoring, diagnosis and treatment), laboratory results, x-rays and photographs of the services rendered and performed manipulation, consumption of medicines, prescription bills, history of charges and payments

A special mechanism of customizable forms of data can include any of the information related to patient

Use custom form templates of documents and records in the medical record with automatic population of fields in the database simplifies routine operations in completing medical records by specialists. Typical template records for specific medical specialists included.

EMR may include tables, graphics, scanned images, a template fields, select the color and font parts of the document.

Control access to records in the medical record and the management of regime of record-keeping

### **Accounting medical specialists and staffing**

Accounting for medical staff and their work history

Maintain list of members of staff and positions

Refillable dictionary of positions

Linking staffing positions to departments of medical organization

Accounting filled and unfilled vacancies for posts

Relocation of staff to the positions of the staffing

### **Timetable and work time accounting**

Maintenance schedule for employees

A convenient form of scheduling allows you to set any timetable for medical specialists, cabinets, wards and equipment

Accounting for duty, sick, vacation and business trips of specialists

Accounting staff come and go, including by means of a biometric system of working time

Calculation of planned and actual work time on staff, offices and medical facilities in general

Time sheet of employees

### **Reception and appointments**

Maintain an appointments

Various forms of appointments (schedule and appointments by specialists, by cabinets, by items of equipment. Forms: a) one day – many specialists (cabinets, workplaces), b) one specialist – many days.

Three modes of display graphics techniques - by professionals in their offices, at work places (seats, etc.)

Fast pre-entry records by pseudonym

Accounting for primary and secondary receptions (visits)

Print coupons at the reception and any other documents connected with the handling and treatment

Classification methods using special techniques for evaluating the performance of medical managers and doctors

Complete statistics methods, including the share of the primary receptions in total amount and other

## **Accounting for medical services and treatment**

Registration of diagnoses and standardized schemes of treatment (medical standards)

Consideration of complaints and diagnoses in the patient's card

Preparation of treatment plans using custom schemes (standards) for the treatment

Registration of work performed and services

Automatic calculation of the cost of treatment on rates, taking into account the flexible system of discounts and tariff schemes

A quick accounting services in the flow regime

Accounting for the consumption of materials for the treatment of

Automatic write-off of materials according to the standards for each service

Manual accounting of the consumption of materials for the treatment

Write-off of materials at the weighted average price or parties (LIFO, FIFO)

Monitoring compliance with treatment standards

Calculation and analysis of losses from non-compliance with treatment standards

International Classification of Diseases ICD-10

## **Electronic medical records**

Flexible configuration of standard template entries in medical records

Maintenance of medical records using a template record with automatic population of template fields

The inclusion of any entry in the card scanned documents (images, test results, etc.)

Submission of entries in the map in text and tabular form

Print entries in the chart and electronic medical records

Option: Typical templates of medicine records

## **Hospital and hospital beds**

Accounting of the chambers, rooms and hospital beds, including vector graphic representation

Monitor the status of hospital beds and loading chambers, including the use of vector graphics on the floor plans and plans of houses

Accounting of reservations, accommodation and discharges  
Recording moving patients from room to room, from ward to ward  
Statistics loading chambers and rooms for any length of time in offices and in the whole medical establishment  
Calculation of the efficiency of using of rooms and beds

## **Stomatology**

Representation of the dental status and dental diagnoses on the graphic map  
The associated dental records of diagnoses, services and consumption of materials  
Monitor the implementation of treatment standards  
Automatic write-off of materials according to the standards  
Communication with external databases of radiograph images obtained from external devices

## **Accounting for payments and settlement of accounts with patients**

Maintain personal accounts of patients  
Maintain current accounts of organizations and insurance companies  
Maintenance of family accounts  
Registration fees and charges for services by any form of payment (cash, noncash, etc.)  
Accounting for advances and debts  
Formation of receipts, receipt of orders, orders, contracts with patients, etc.  
Creating invoices for payment by organizations  
Verify the amount of cash receipts and the amount of production for any period of time for doctors and for the whole clinic

## **Warehouse, accounting and medical supplies**

Development of applications for drugs and materials  
Accounting for materials accounting documents (receipt, account invoices, statements write-offs)  
The arrival of materials at the warehouse  
Delivery of materials for physicians and / or offices and / or jobs  
The movement of materials from the warehouse to warehouse  
Flow rates and writing off of materials under specifications and manual  
Supply and writing off the medicines and goods for sale  
Party accounting and automatic posting credit and debit transactions to parties of materials  
Monitoring of expiration dates  
Calculation of the current balances of materials in stock and on places  
An inventory balances  
Creating reports and detailed lists of the movement of materials  
Development of turnover balance sheet  
Monitoring of minimal residual stock  
Support for multiple stores (branches) clinic

## **Pharmacy and points of sale**

Sales of medicines and medical supplies to customers in retail outlets (pharmacies, kiosks, etc.)

Implementation of sales and automatic debit items of tangible accounting from the warehouse.

A special graphical user interface (workplace dealer) for easy and quick invoicing and sales of products using touch screen (Touch-screen).

## **Calculation of salaries**

Payroll and calculation of salaries by sum of work

Payroll and calculation of salaries by sum of income

Payroll and calculation of salaries in the tariff coefficients depending on the role of team

Payroll and calculation of salaries in the tariff coefficients depending on the salary group

## **Registration and storage of documents**

Flexible configuration of the nomenclature of storing documents in relation to the structure of departments and enterprises

Recording and storage of documents, including images (eg scanned records of medical history, laboratory findings of scanned data, images, etc.), as well as incoming and outgoing correspondence, regulations, orders, memos, etc. n.

Store the contents of any document format (text files, Word. Excel, graphics, sound, etc.) and a direct transition to any external editor to edit the document in accordance with its format

## **Print documents on customizable templates**

Building custom document templates

Customizable print button in all major forms

Cycle printing of lists, using customizable templates

Built-in document editor

## **Working with organizations and insurance companies**

Registration of organizations, insurance companies, families

Registration service contracts and lists of attachments

Maintain current accounts of organizations and families

Payments to organizations, insurance companies and families

## **Laboratory research results**

Maintenance of customizable multiparameter template table forms of laboratory research

Register the results of laboratory research and analysis

Complex queries and searches on the results of laboratory tests

Summary and detailed reports on the results of laboratory tests

Import of laboratory results from external systems in PDF and Excel (separate option \*)

Print comprehensive reports on the results of laboratory studies on customizable templates

## **Complex medical examinations**

Conduct a complex examinations of patients' groups by specialists (prophylactic medical examination, professional medical examination, a survey of sports teams, etc.)

Organization of joint coordinated group work of profile specialists at carrying out preventive and comprehensive medical surveys

Flexible configuration of any of the stereotyped forms of complex surveys

Automatic preparation of comprehensive reports on surveys of customizable templates

Flexible configuration of the reports on the results of comprehensive surveys

Export the results of comprehensive surveys to external systems (MS Excel, RTF)

Import the results of comprehensive surveys of external systems (MS Excel) (separate option \*)

## **X-rays and scans**

Registration of X-rays, photographs and scanned images in internal data warehouse

Interface with an external database radiographs obtained from third-party equipment

Imaging (increase, decrease, avtokontrastirovanie, pseudocolor painting, gistogramma brightness, length measurement, etc.)

Review and processing of radiographs, photographs and scanned images in the EMR of the patient

Direct interfacing with the scanner, direct entry and registration of images from a scanner into a database system CS Polibase

## **Accounting Advertising and evaluation of its effectiveness**

Registration of advertising sources and groups

Register the number of visits to the clinic from various sources and categories of advertising

Assessing the economic effects of advertising for any time period for advertising sources

## **Medical Statistics and analysis**

Medical statistics by visits: summary and detailed reports on the number of visits over time, by doctors, patients, study, treatment and methods of payment, counting the total number of visits (primary / on the recommendation), records of consultations (primary / recommendations on ), treatment (primary / recurrent) etc.

Statistics on medical services, treatments and goods: summary and detailed reports for the period of time on the number and total value of services rendered by physicians, patients, diagnosis, treatment facilities, services and payment methods with the calculation of the amount of work in UET. Cost of services can be recalculated into a one currency at the exchange rate at the time of service provision

Statistics on payments: summary and detailed reports on the charges and payments for the period of time, by the doctors, patients, and methods of payment. Find debtors and creditors. Graphs of income (fees and charges) by days and any period of time.

Statistics on medical supplies and drugs: summary and detailed reports on the coming in, issue, expenditure and fund materials warehouse (office) for the period of time, doctors' offices and workplaces.

Statistics on wages (hourly and piece-rate) for a period of time, the doctors, specialists, in the whole clinic

Statistics for downloading and use of rooms, cabinets and wards: an analysis of load and number of occupied cabinets and wards. The number of patients. Average length of stay. Detailed and

summary reports on the placement. Summaries for patients. Summaries of the consulting rooms.  
Summary of the day.

## **Analysis of the effectiveness of the medical establishment and the general medical statistics**

General medical statistics and quantitative assessment of the effectiveness of the clinic, including a graphical representation of the performance of administrators, physicians and clinics in general on the timeline for weeks over any period, and calculate the rating of doctors.

Analysis of sales and performance indicators registrars (registration of new patients, methods, applications, records)

Analysis of sales and performance of physicians (techniques, counseling, treatment, revenue, ratings)

Analysis of sales and performance of the clinic as a whole (techniques circulation records, counseling, treatment, and income)

## **Financial accounting and analysis**

Flexible adjustment of the financial structure of the clinic (revenues and expenditures)

Accounting for revenue and expenditure side of medical institutions

Statistical analysis of revenues and expenses by the clinic, offices, articles, experts, etc.

## **Accounting for calls, outgoing calls and Call-center**

Creating a list of calls patients with an invitation to visit the medical facility (list of calls)

Registration of incoming calls

Planning and recording of calls

Distribution of dial-out between the administrators

Registration of the results of calls of a special method

Statistics on the results of canvassing and phone calls to other

## **Accounting for marketing activities, tasks and assignments**

Register of marketing projects and related acts, orders and documents

Registration instructions for implementing and tracking the status of their performance (performance on time, late, overdue, a reminder of execution)

Statistics on execution of orders

## **System administration, access control and auditing of users**

Utility of reserve coping of database (backup) and recovery

Establishment of flexible configuration of workplaces (eg, workplace of physician, workplace of administrator, workplace of director, etc.)

Creating users and setting passwords

The distribution of workplaces, permissions and rights between users

Distribution and protection of data at the level of lists

Protection of records on the degree of access and work with private data

Internal audit and logging of the actions of users

## **Backing up and restoring data**

Automatic backup of the database on the specified rules

Restore database from backup



## **2. Additional options and services**

### **Sending SMS and E-mails**

Send SMS messages to patients and other contractors in the automatic and semiautomatic modes (a reminder of an appointment, readiness laboratory tests, congratulations on birthday, invitations to routine inspections, etc.

Creating a mailing list or SMS mailing signs on the events

### **Biometric Time Attendance System**

Register the time of arrival and departure of employees and work time with a fingerprint reader (fingerprint method \*) and without the aid of a fingerprint scanner (traditional way), and with the help of plastic cards with magnetic stripe, barcode

Calculation of the actual residence time of the staff at work

Accounting for delays, omissions and revisions according to the biometric records in accordance with the staffing and individual operating schedule of each employee

### **Direct interfacing with external video sources**

DIRECT CAPTURE VIDEO FROM MEDICAL DIAGNOSTIC EQUIPMENT WITH DIGITAL OR ANALOG VIDEO (ultrasound, colposcopy, x-rays, probing, MICROSCOPY, ETC.)

Compatible with virtually all medical diagnostic systems, working with images and video with digital or analog video

Chance of a complete rejection of full-time recording devices - video printers and their costly consumables, and as a consequence of reduction in the cost of diagnostic studies, as well as printing photos will be on a standard laser printer.

When purchasing new equipment, there is no need to buy video printer

Consolidation of the imagery in the EMR for patients in general database

Opening of a new service for recording the results of research on CD \ DVD drive

Quick and easy to obtain photographs and video (optional pedal can be supplied).

### **Printing of plastic cards and magnetic stripe programming**

Interface with the printer of plastic cards

Print bar code or programming a magnetic strip on plastic cards

Automatic detection of patients with plastic cards

### **3. Modules (configuration Enterprise)**

Medical Information System CS PoliBase has a modular structure and each module has many functions from one or more functional groups. Connect the module to the base configuration is a connection of all related data module and functions (see also section 1.).

After connecting the module to the base configuration access functions and data additionally regulated system of access control and user rights system CS PoliBase already within a given system configuration.

The module defines a base set of data and functions in the supplied configuration and affect its cost. The Enterprise system configuration includes the following modules:

- PATIENTS JOURNAL
- PATIENT'S ELECTRONIC CARD
- ELECTRONIC MEDICAL RECORDS (EMR)
- ORGANIZATIONS AND CONTRACTORS
- CONTRACTS AND MEDICAL SERVICE PROGRAMS
- SPECIALISTS AND STAFF LIST
- SCHEDULE OF WORK AND BOOKING
- CALENDAR OF APPOINTMENTS
- DOCTOR'S WORKPLACE
- LABORATORY STUDIES
- COMPLEX MEDICAL EXAMINATIONS
- HOSPITAL AND BEDSPACE PLANNING
- DENTISTRY
- ACCOUNTING OF TREATMENT AND SERVICES
- ACCOUNTING OF PAYMENT
- WAREHOUSE AND ACCOUNT OF MEDICINE AND MEDICAL MATERIALS
- CALL CENTER AND LISTS OF CALLS
- CONTACT AND ASSIGNMENT MANAGER
- CALCULATION OF SALARY AND PAYROLL
- TEMPLATES AND DOCUMENTS
- CUSTOMIZABLE FORMS AND PARAMETERS
- HEALTH STATISTICS
- STATISTICS ADVERTISING
- EVALUATION OF PERFORMANCE OF STAFF

#### **4. Modules that come as additional options:**

TIME ATTENDANCE MODULE

MODULE FOR DIRECT COUPLING WITH VIDEO SOURCE

TERMINAL CS POLIBASE 1CLICK FRONT OFFICE

MODULE OF AUTOMATIC RECOGNITION AND IMPORTING DATA FROM PDF

MODULE EXPORT OF MEDICAL DATA IN PATIENT'S PERSONAL ARCHIVES

POST SYSTEM OF REMOTE EXCHANGE BETWEEN CS POLIBASE DATABASES