



**DRAWING PREPARATION USING INFORMATION SYSTEMS IN  
MEDICINE**

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***Annotatsiya.*** Ushbu maqolada tibbiyot sohasida axborot tizimlaridan foydalanishning dolzarbligi va ahamiyati batafsil yoritilgan. Ayniqsa, zamonaviy tibbiy axborot tizimlari yordamida turli xil ma'lumotlarni yig'ish, saqlash, qayta ishlash va ularni vizual ko'rinishda aks ettirish masalalari ko'rib chiqiladi. Diagrammalar, grafiklar va blok-chizmalar yordamida murakkab tibbiy jarayonlarni soddalashtirish, ularni tushunarli shaklga keltirish imkoniyatlari tahlil qilinadi.

Shuningdek, ishda tibbiy axborot tizimlarining klinik qarorlar qabul qilishdagi o'rni, diagnostika va davolash jarayonlarini optimallashtirishdagi roli alohida ta'kidlanadi.

Mazkur ish natijalari tibbiyot xodimlari, talabalar hamda axborot texnologiyalari mutaxassislari uchun amaliy ahamiyatga ega bo'lib, tibbiy axborot tizimlaridan samarali foydalanish bo'yicha tavsiyalarni ham o'z ichiga oladi.

***Kalit so'zlar.*** Taxborot tizimlari, elektron sog'liqni saqlash, raqamli tibbiyot, diagramma, grafik, blok-sxema, vizualizatsiya, ma'lumotlar bazasi, klinik axborot tizimlari, telemeditsina, IT texnologiyalar, sog'liqni saqlash tizimi, ma'lumotlarni tahlil qilish, sun'iy intellect.

***Annotation.*** This article discusses in detail the relevance and importance of the use of information systems in the medical field. In particular, the issues of collecting, storing, processing and visualizing various types of data using modern



*medical information systems are considered. The possibilities of simplifying complex medical processes and bringing them into an understandable form using diagrams, graphs and block diagrams are analyzed.*

*The work also emphasizes the role of medical information systems in clinical decision-making, and their role in optimizing diagnostic and treatment processes.*

*The results of this work are of practical importance for medical workers, students and information technology specialists, and also include recommendations for the effective use of medical information systems.*

**Keywords.** *Information systems, electronic health care, digital medicine, diagram, graph, block diagram, visualization, database, clinical information systems, telemedicine, IT technologies, health care system, data analysis, artificial intelligence.*

**Аннотация.** *В данной статье подробно рассматривается актуальность и важность использования информационных систем в медицинской сфере. В частности, анализируются вопросы сбора, хранения, обработки и визуализации различных типов данных с использованием современных медицинских информационных систем. Рассматриваются возможности упрощения сложных медицинских процессов и приведения их к понятной форме с помощью диаграмм, графиков и блок-схем.*

*В работе также подчеркивается роль медицинских информационных систем в принятии клинических решений и их роль в оптимизации диагностических и лечебных процессов.*

*Результаты работы имеют практическое значение для медицинских работников, студентов и специалистов в области информационных технологий, а также включают рекомендации по эффективному использованию медицинских информационных систем.*

**Ключевые слова:** *информационные системы, электронное здравоохранение, цифровая медицина, диаграмма, график, блок-схема, визуализация, база данных, клинические информационные системы,*



*телемедицина, ИТ-технологии, система здравоохранения, анализ данных, искусственный интеллект.*

Today, information technologies are widely used in medicine, as in all areas, and this process is taking the quality of the healthcare system to a new level. Medical information systems allow doctors, nurses and other medical workers to quickly collect, store, process and effectively use information about patients. With the help of these systems, errors due to the human factor are reduced, and the accuracy and reliability of data are increased.

Modern medicine requires working with large volumes of data, and analyzing them in plain text takes a lot of time and effort. Therefore, it is important to represent data visually, that is, through diagrams, graphs and block diagrams. This approach allows you to quickly analyze complex medical processes by presenting them in an understandable and convenient form.

In addition, drawings and diagrams can clearly show the stages of disease development, the effectiveness of treatment, and various statistical indicators. This greatly helps doctors in making the correct diagnosis, choosing optimal treatment methods, and dynamically monitoring the patient's condition.

The use of information systems in medicine is carried out in several important areas, and they play a major role in increasing the efficiency of the healthcare system.

Firstly, data collection and storage. Modern electronic health systems collect all information about patients in a single information base. This information includes the patient's personal data, medical history, laboratory results, diagnoses, and treatment processes. Such systems prevent data loss and allow them to be quickly found at any time. This collected data later serves as the main source for creating various diagrams and drawings.

Secondly, visualization tools. Using special software tools, large amounts of medical data are displayed in the form of graphs, diagrams, and block diagrams. This makes complex statistical data simple and understandable. For example, the prevalence of diseases, the dynamics of the growth of the number of patients, or the effectiveness of treatment can be represented in a graphic form. Through



visualization tools, doctors and researchers have the opportunity to analyze data faster and draw clear conclusions.

Third, the process of drawing. Creating drawings and diagrams using medical information systems is carried out based on certain stages:

- data collection (patient statistics, laboratory results, monitoring indicators);
- sorting and analyzing data;
- choosing a suitable visual model (diagram, graph, block diagram or table);
- creating a drawing using special software tools;
- checking, analyzing the created drawings and drawing practical conclusions

from them.

This process requires a systematic approach, and the accuracy of the result directly depends on the quality of the data.

Fourth, practical application. Drawings and diagrams are widely used in various fields of medicine. They are an important tool for clinical decision-making, early detection of diseases, comparison of treatment methods and monitoring. For example, the stages of disease development are shown in a block diagram, and laboratory results are analyzed in a graphical form.

Fifth, analysis and forecasting capabilities. With the help of information systems, not only the current situation is analyzed, but also the future situation can be predicted. On the basis of statistical diagrams, disease development trends are identified and preventive measures are developed. This serves to strengthen prevention (prevention) work in the healthcare system.

Sixth, integration and automation. Modern medical information systems work in integration with other systems. This allows you to combine information from different sources and present it visually on a single platform. Automation, in turn, reduces the human factor and increases productivity.

In general, the use of information systems in medicine not only simplifies data management, but also significantly improves the quality of medical services through their effective visualization.



In conclusion, the use of information systems in the medical field has become an integral part of the modern healthcare system. These systems not only simplify the processes of collecting, storing and processing data, but also expand the possibilities of presenting them visually - through drawings, diagrams and graphs.

This makes complex medical data understandable and easy to analyze.

Also, drawings and diagrams serve as an important tool in the process of making medical decisions. With their help, the dynamics of the development of diseases, the effectiveness of treatment and other important indicators are clearly assessed. As a result, the accuracy and efficiency of decisions made by doctors increase.

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