

THE IMPORTANCE OF INFORMATION TECHNOLOGY IN TRAINING MEDICAL PERSONNEL

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ABSTRACT

This article discusses the importance of introducing information technology to the health care system and in teaching, training medical personnel. The article will be useful for students of medical universities, medical workers, management personnel of the medical industry.

Keywords: Healthcare, informatization, effective management, quality of medical care, information space, quality of education.

INTRODUCTION

Modern requirements for the healthcare system cannot be met without informatization of the healthcare system at all levels of management.

The level of informatization of the healthcare system is one of the main components of information development.

The main issues that are currently being discussed as ways of developing health care in the world are:

1. Health policy;
2. Implementation of information systems in healthcare - electronic medical records, electronic individual patient records;
3. Methods of effective management of chronic diseases and the system of continuing education for doctors;
4. Improving the quality of medical care and methods of payment for medical care in relation to work results;
5. The role of the patient in the process of providing medical care. Responsibility of the population for their own health and health education of the population. Patient participation in repayment for medical care.

Thus, the introduction of information systems in healthcare is one of the key factors in its development not only in Uzbekistan, but throughout the world. The inevitability of the introduction of information technologies into the health care system is a fact. The main directions are: electronic medical history, individual patient records, remote access to the patient through electronic monitoring systems, electronic prescription systems, mandatory implementation of electronic decision support systems and electronic libraries for both medical professionals and patients.

Materials and Methods

The main problems in the implementation of informatization of health care are: the high cost and the need to change the style of work of doctors and medical personnel.

Currently, many developed countries are working to create a single information space. In Europe (within the European Union), the E-health program were implemented, the primary tasks of which are standardization, provision of insurance coverage regardless of location, processing of medical information about a patient using information technology (sometimes the term telemedicine is used to describe the latter task, but it does not fully reflect the essence of these processes). In the United States, the priority areas of work for the current period are: electronic health passport (EHR), national information infrastructure for health care, regional health information centers (RHIOs), electronic health data exchange. These directions are implemented as part of a comprehensive program for creating a segment of the information system in the healthcare sector within the framework of the Electronic Government.

Similar work is being done in Canada, in all EU countries, in Asia and others. In Canada, the priority areas are: an electronic health passport, the development of ICT infrastructure, the creation of an IT infrastructure that unites clinics, hospitals, laboratories, pharmacies and other medical institutions, the creation of unified registers, reference books and classifiers, telemedicine. In the European Union, the main areas are: electronic health passport, personification of medical services, development of ICT infrastructure, incl. creation of regional centers of medical information, organization of electronic exchange of medical data, telemedicine.

The effectiveness of the implementation of health informatization programs is scientifically substantiated. It was determined in Germany, which the introduction of an e-health system would result in savings of about 30% of all costs.

Thus, the introduction of information systems in healthcare is one of the key factors in its development throughout the world. The inevitability of the introduction of information technologies into the health care system is a fact.

An important component of the national educational policy is the introduction of modern educational technologies. Of these, the priority is information technology, which is actively used in the study of medical informatics.

Currently, medical informatics is recognized as an independent field of science, which has its own subject, object of study and occupies a place among other medical disciplines. In this case, the subject of study is information processes associated with biomedical, clinical and preventive problems, and the object is information technologies implemented in health care. The main goal of medical informatics is to optimize information processes in medicine through the use of computer technology, which improves the quality of public health protection. Medicine delivers a complex task - methods, and informatics provides a complex of means - techniques in a unified methodological approach based on the system task - means - methods - techniques.

Results and Discussions

The training of medical personnel today is unthinkable without the use of information technology, which offers tools and techniques for solving the assigned medical problems.

The types of information technologies which we use are classified according to the following tasks:

1. Processing of text medical documents.
2. Mathematical modeling in medicine (number processing technologies).

3. Creation and working with information systems (data processing technologies).
4. Creation of multimedia products (multimedia technologies).
5. The use of Internet services in the practice of a health worker (network technologies).
6. It is necessary to purchase software products for medical diagnostics (expert systems).

The above tasks fully reflect the following goals:

- To meet modern requirements and increase the effectiveness of training specifically in medical education, it is necessary:

- Train medical students in the basics of computer literacy, medical informatics with an emphasis on the ability to search and filter, critical assessment of information.
- To create an infrastructure in medical educational institutions that allows students and teachers to have free access to computers and information databases, freely use the Internet.
- Encourage the development of modern multimedia teaching aids and courses by students and teachers and, where possible, post them on the Internet.

The review of software products for medical education is difficult due to the unsolved problem of classification in the subject area under consideration. Consider the most common classification based on learning objectives:

1. Electronic teaching aids.
2. Learning expert systems.
3. Test control systems.
4. Medical information systems.

In the learning process, the use of electronic textbooks is justified in a situation of insufficient provision of educational and methodological literature, as well as as a way to resolve the contradiction between the desire to cover as much of the demonstration material as possible and the practical possibility of its production. Since it takes time to master a special software environment, as well as some skills, electronic teaching aids can be created in a well-studied presentation preparation program. For active students (circle members), a course project is set - the creation of an electronic manual. The course project stipulates the topic, specific material, form of presentation of this material. As it is created, the student is accountable for his work and defends the finished product. The lessons of the entire computer science course are based on the same principle, only the topic of the project is determined by the teacher himself.

The use of test control systems is justified in cases of the emergence of a psychological barrier "teacher - student", to reject the system of fixed variants of tests and standards, to increase the objectivity and speed of assessment of test results.

The use of software products based on the concept of "electronic patient" is justified by the fact that simulator programs create problematic situations in the field of diagnostics and (or) treatment tactics. They are aimed at acquiring knowledge, professional skills and abilities, while practical skills mean not so much therapeutic and diagnostic manipulations as mastered methods of productive thinking activity, which provides correct, quick and economical diagnosis and effective treatment.

CONCLUSION

Thus, the use of information technologies in the study of medical informatics is a necessary component of the formation of the information culture of a future specialist. Strategic guidelines in the formation of the information culture of medical college students are:

- Increasing professional competence;

- Ability to work in an information and educational environment;
- Tolerance, sociability, ability to cooperate;
- Readiness for self-education throughout life;
- The ability to apply the knowledge gained in the field of information culture in practice.

One of the main tasks of the functioning of the health care system in a developed society is to increase the duration of an active life.

Improving the quality of training in information technologies for medical personnel will be facilitated by solving a number of problems, which include the formation of professional competencies in the field of information technology and the formation of the population's readiness for new forms of interaction with components and participants of the healthcare system.

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