THE ROLE OF INFORMATION TECHNOLOGIES IN MEDICINE

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Abstract:

In today's world, information technologies have become pervasive, influencing nearly every aspect of our lives. It is therefore undeniable that a critical area such as healthcare must also embrace these advancements. Modern digital innovations are significantly shaping how medical care is delivered globally, offering more effective and efficient approaches. Furthermore, the establishment of a well-functioning IT infrastructure is crucial to support these new methods. This is not a novel concept; many nations have long recognized the benefits and have been proactively implementing technological advancements in their medical systems.

Аннотация:

В современном мире информационные технологии стали повсеместными, влияя практически на все аспекты нашей жизни. Поэтому неоспоримо, что такая важная область, как здравоохранение, также должна принять эти достижения. Современные цифровые инновации существенно меняют способы оказания медицинской помощи во всем мире, предлагая более эффективные и рациональные подходы. Кроме того, создание хорошо функционирующей IT-инфраструктуры имеет решающее значение для поддержки этих новых методов. Это не новая концепция; многие страны давно осознали преимущества и активно внедряют технологические достижения в свои медицинские системы.

Keywords: information technology in medicine, clinic, health, patient, service, modern technologies, automation.

Ключевые слова: информационные технологии в медицине, клиника, здоровье, пациент, обслуживание, современные технологии, автоматизация.

Introduction: Information technologies (IT) are ubiquitous in the modern world. Healthcare is no exception. Modern IT developments are having a positive

impact on developing new ways to organize medical care for the population. Many countries have long been actively using new technologies in healthcare. Conducting teleconsultations for patients and staff, exchanging information about patients between various institutions, remotely recording physiological indicators, monitoring operations in real-time - all of this is provided through the introduction of information technologies into medicine. This is bringing the informatization of healthcare to a new stage of development, positively affecting all aspects of its activities.

The introduction of IT in healthcare makes it possible to improve the quality of service, significantly speed up the work of staff, and reduce the cost of patient care.

Information technologies in medicine and healthcare help to solve the following tasks:

- keeping records of patients in the clinic;

- monitoring their condition remotely;

- storing and transmitting the results of diagnostic tests;

- controlling the correctness of the prescribed treatment;

- conducting distance learning;

- advising inexperienced staff.

Information technologies in medicine enable high-quality monitoring of patients' conditions. Maintaining electronic medical records reduces the time clinic staff spend on preparing various forms. All information about a patient is contained in a single document that is accessible to the institution's medical staff. All information about the results of examinations and procedures is directly entered into the electronic medical record. This allows other specialists to assess the quality of the prescribed treatment and identify any ambiguities in the diagnosis.

The use of IT in medicine allows doctors to conduct online consultations at any convenient time. This increases the availability of medical services. People can receive qualified help from experienced doctors remotely. This is especially useful for people who:

- live in geographically remote areas;

- have disabilities;

- are caught in an emergency;

- are in a restricted space.

Thus, patients or doctors do not have to travel long distances for consultation. With the help of modern information technologies, a doctor can assess a patient's condition, examine them, and become familiar with all their test results.

Such consultations are not only necessary for patients with physiological problems. Consultations are also allowed for people who need psychiatric or psychological help. Audiovisual communication allows the doctor to establish contact with the patient and provide them with the necessary assistance.

Today, medical information systems are actively developing, which allows institutions to work more efficiently and quickly. In Russia today, the informatization of healthcare is receiving increased attention from the government. Financial investments in the development of new medical IT have a positive impact on their development and improvement.

In addition, the need to introduce innovations into the healthcare system is increasing in Russia today. Ensuring maximum data protection of such systems remains an urgent issue. Therefore, developers' efforts are now focused on eliminating the possibility of outside access.

Informatization of healthcare is a very broad concept, which also includes activities aimed at informing specialists about the world's scientific achievements in the field of medicine using IT. Thus, it is an effective way to train and improve the qualifications of hospital and polyclinic staff.

With the help of such technologies, doctors can quickly receive information about new developments and discoveries that help them work more effectively. This issue is particularly relevant for medical staff working in remote settlements.

The implementation of innovative technologies in medicine is fast and easy. The interface of such systems is clear and intuitive, even for untrained users. Clinic staff can quickly learn how to operate these new technologies. Developers help in

understanding all the nuances of product operation. After completing a training that requires minimal time, medical staff will be able to:

- work with information resources;

- conduct teleconferences;

- work in local and global computer networks;

- use help systems.

Today, within the framework of healthcare informatization in Russia, it is planned to create a national telemedicine system. With the right approach, this technology will not only significantly improve the quality of medicine but also help to reduce costs. For example, doctors will not have to allocate funds to attend scientific conferences. They will be able to participate in such events remotely.

Modern IT capabilities in healthcare enable a positive impact on all aspects of medical care. The use of information technologies in medicine also makes it possible to:

- conduct distance learning;

- establish communication for the exchange of experience with colleagues;

- obtain the latest information on healthcare.

In addition, technology can improve the management of a medical institution. It allows automating the work of medical systems:

- clinic management;

- planning and economic department;

- personnel department;

- financial service;

- pharmacies;

- material services.

Also, managers are given the opportunity to cooperate more effectively with the mandatory medical insurance fund and the regional health management body. IT in medicine allows you to optimize the work of doctors, the registry, the admissions department, and other services.

Furthermore, the use of innovative systems simplifies the institution's drug supply system. New technologies quickly help to:

- register revenue and expense transactions;

- implement control over warehouses;

- generate applications for the delivery of medicines;

- monitor drug consumption;

- write off materials and preparations;

- create reporting documents and submit them to higher authorities.

Information technologies are actively used in the field of education in medicine. Remote seminars allow students of universities and medical schools to acquire the necessary knowledge. Such technologies allow young professionals to attend lectures by well-known doctors and gain new knowledge and experience.

All these opportunities are now available for Russian clinics. The RoboMed unified medical system is the future of your institution. Your staff will work more efficiently, bring more profit, and keep pace with Western clinics. We will help you implement this technology into your business. Additionally, we will train your staff to work with the system as quickly as possible. If any questions arise during the operation of RoboMed, our highly qualified staff will quickly answer them and help solve the problems that arise. When you purchase this system, you will be assigned a personal service manager who will be available to assist you at any time and will inform you about new software features and available updates.

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