THE RELEVANCE OF TEACHING MEDICAL INFORMATICS

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Abstract: This article examines the features and relevance of teaching medical informatics in medical universities, as well as teaching methods of this subject and the skills and knowledge necessary for specialists in the field of medical informatics.

Keywords: electronic medical documentation (EMD), telemedicine, medical information systems, biomedical analytics, medical applications and devices

Medical informatics is a field that combines medicine and computer science to improve the quality of healthcare, process and analyze medical data, and optimize medical processes. Here are some areas of application of medical informatics:

Electronic Medical Documentation (EMD): The introduction of electronic medical records improves the availability and exchange of medical information, reduces errors and improves the efficiency of medical institutions.

Telemedicine: The use of communication technologies for remote patient consultation, diagnosis and treatment, which is especially important in remote and hard-to-reach regions.

Medical Information systems: Development and implementation of specialized information systems for medical data management, resource planning, and process optimization in healthcare.

Biomedical analytics: The use of data analysis methods to identify patterns, predict diseases, optimize treatment, and make decisions in medical practice.

Medical applications and devices: Development of mobile applications and medical devices for health monitoring, disease diagnosis and improvement of patients' quality of life.

Data security and confidentiality: Ensuring the protection of medical information from unauthorized access, leaks and virus attacks, compliance with security and confidentiality standards.

Medical informatics plays an important role in modern medicine, helping to improve the quality of medical care, optimize processes and increase the efficiency of medical institutions.

Teaching medical informatics is highly relevant in the modern world for the following reasons:

Technology Development in healthcare: With the continuous development of technologies in medicine, including electronic medical records, telemedicine, medical

information systems, and biomedical analytics, medical informatics specialists are becoming more in demand.

Improving the quality of healthcare: Knowledge in the field of medical informatics makes it possible to optimize healthcare processes, improve the availability of medical care, reduce errors in diagnosis and treatment, and improve the efficiency of medical institutions.

The need for professional specialists: Medical informatics specialists play a key role in the development and implementation of information technologies in medicine, as well as in ensuring the security and confidentiality of medical information.

Innovation and research: Teaching medical informatics promotes innovation and research in the field of healthcare, which in turn contributes to the improvement of methods of diagnosis, treatment and prevention of diseases.

Global health challenges: In the context of global challenges such as the COVID-19 pandemic, the effective use of information technology in medicine is becoming especially important to combat crises and provide quality medical care.

Thus, teaching medical informatics is relevant and necessary for the training of specialists who are able to effectively apply information technology in medical practice and introduce innovative approaches to improve healthcare.

Medical informatics professionals should have a wide range of skills and knowledge, including:

Knowledge of medical fundamentals: Understanding the fundamentals of medicine, terminology, procedures, and principles of medical institutions.

Information technology: In-depth knowledge of information technology, databases, programming, networking, information security, and other technical aspects.

Electronic Medical Records (EMR): Understanding the principles of working with electronic medical records, their implementation, use and security.

Telemedicine: Knowledge of the principles of telemedicine, including remote counseling, patient monitoring, and the use of technology for exchange of medical information.

Biomedical analytics: The ability to analyze and interpret medical data using biomedical analytics methods to identify patterns and improve healthcare processes.

Project Management: Project management skills in the field of medical informatics, including project planning, coordination, and control.

Communication and collaboration: The ability to communicate effectively with medical specialists, administration and other healthcare participants for the successful implementation of projects.

Ethics and Confidentiality: Understanding the ethical aspects of working with medical information, ensuring data confidentiality, and complying with healthcare

legislation.

These skills and knowledge enable specialists in the field of medical informatics to successfully implement information technology in medical practice, optimize healthcare processes and improve the quality of medical care.

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