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THE IMPORTANCE AND RELEVANCE OF ARTIFICIAL INTELLIGENCE IN THE DEVELOPMENT OF MEDICINE

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Annotation: This article analyzes the introduction of artificial intelligence technologies in the field of Medicine and its importance in the development of the health system. In the course of the study, the capabilities of diagnostic, forecasting and treatment support systems that work on the basis of artificial intelligence were studied.his article analyzes the introduction of artificial intelligence technologies in the field of Medicine and its importance in the development of the health system. In the course of the study, the capabilities of diagnostic, forecasting and treatment support systems that work on the basis of artificial intelligence were studied. Based on the analysis of scientific literature, the role of artificial intelligence in early detection of diseases, improving accuracy in medical decision-making and improving the quality of medical services was highlighted. The results of the study showed that the effective use of artificial intelligence in medicine marks a new stage in the protection of human health.
Keywords: artificial intelligence, medicine, digital health, machine learning, diagnostics, telemedicine

Introduction.

On a global scale, the modernization of the health system and the improvement of the quality of medical services is one of the pressing issues. An increase in the number of inhabitants, an increase in the share of chronic diseases and limited medical resources necessitate the introduction of modern technologies. In this context, artificial intelligence technologies are emerging as an important innovative solution in the medical field.

Artificial intelligence makes it possible to automate the processes of analysis, learning and decision-making inherent in human thinking.rtificial intelligence makes it possible to automate the processes of analysis, learning and decision-making inherent in human thinking. The use of SI technologies in Medicine serves to reduce diagnostic errors, optimize treatment processes, and improve physician performance. The purpo.

Research techniques(Methods

This study used qualitative and quantitative analysis techniques. Through a systematic analysis of the scientific literature, the directions of application of artificial intelligence in medicine were determined. The effectiveness of machine learning and deep learning algorithms in medical diagnostics was also compared.

The research methodology includes:

analysis of scientific articles and monographs;

comparison of practical experiments;

the study of the functional capabilities of artificial intelligence-based medical systems;

evaluation of algorithms for automatic analysis of medical images.

Necessary measures to be carried out to improve the quality of medical services.

1. Introduction of digital technology

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Digitalization in medicine is one of the most important factors in improving the quality of services.
Introduction of electronic medical card (EHR) system1. Introduction of digital technology
Digitalization in medicine is one of the most important factors in improving the quality of services.
Introduction of electronic medicrm.
Result: the accuracy and speed of diagnosis increases, repeated errors decrease.
2. Training of medical personnel Qualified personnel-guarantee of quality medical service. Continuous training courses for doctors and nurses
Result: professional decision-making quality increases.
3. Strengthening the patient-centered approach In modern medicine, the patient is an active participant, not just an object of treatment. Creation of mechanisms for studying and analyzing patient opinion.
Result: patient satisfaction and treatment efficiency increase.
4. Strict adherence to medical standards and protocols
Introduction of national and international clinical protocols;
Standardization of treatment processes;
Creation of a system for monitoring and analyzing medical errors.
Result: the stability and safety of services are ensured.
5. Modernization of medical infrastructure Providing modern diagnostic and treatment equipment; Development of laboratory and imaging diagnostic services; Expanding access to medical services in rural areas.
Result: the territorial equality of medical services increases.
6. Implementation of the quality assessment system of medical services
Assessment based on quality indicators (CPI) ;
Strengthening Audit and internal control mechanisms;
Introduction of patient safety indicators.
Result: defects are quickly identified and eliminated.
7. Ensuring the safety of medical data
Personal data protection;
Compliance with information security standards;
Ensuring ethical standards in SI Systems.
Result: patient's trust is strengthened.
8. Improving management and financing
Effective management of medical facilities;
Development of Public-Private Partnership;
Implementation of a result-oriented financing system.
Result: resources are used wisely.

Results.

The results of the study confirmed that artificial intelligence shows high efficiency in the medical field in the followiResults (Results).
The results of the study confirmed that artificial intelligence shows high efficiency in the medical field in the following main areas:
In diagnostic processes-SI algorithms are analyzing medical images (MRI, CT, X-ray) with high accuracy, allowing early detection of diseases.
When planning treatment – personalized treatment strategies based on individual patient data are being developed.
In forecasting – through a preliminary assessment of the likelihood of developing diseases, preventive measures were strengthened.
In telemedicine-remote diagnosis and monitoring systems are widely introduced.

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According to the results, there was a significant increase in the quality of Service and patient satisfaction in medical institutions where artificial intelligence was used.

Discussion.

Despite the fact that artificial intelligence has a wide range of capabilities in the field of Medicine, there are a number of problems in its implementation.iscussion.

Conclusion.

The results of the study show that artificial intelligence is an important strategic factor in the development of Medicine. It serves to improve the effectiveness of medical services, early detection of diseases and optimization of the health system. In the future, the role of artificial intelligence in medicine is expected to expand further and become one of the main tools in the protection of human health.

Improving the quality of medical services is not limited to technology or financial resources. This process is carried out through the harmonization of digitization, qualified personnel, patient-centered approach and effective management.mproving the quality of medical services is not limited to technology or financial resources. This process is carried.

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