Modeling of an Expert System for Making a Diagnosis in the Treatment of Oncological Diseases

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Abstract

Today, one of the important problems of the modern world is the increase in the incidence of cancer. Various categories of the population are susceptible to the disease. In this regard, one of the urgent tasks is the early detection of oncological diseases and their prevention. Early detection and accurate diagnosis can increase the likelihood of taking measures to treat and increase the life expectancy of patients.

The use of IT in medicine is developing at a high rate. Currently, there are a huge number of decision support systems in medicine in general. Such systems are widely used in the diagnosis of many diseases. Expert systems have also been developed for the diagnosis of oncological diseases.

The main idea of this article is to conduct a scientific analysis and classification of approaches used in expert systems for diagnosis in the treatment of oncological diseases. A special feature is the identification of the most optimal approach for the expert system in making a diagnosis.

The problem that this study is aimed at is the justification of the choice of an approach for building an intelligent system that makes it possible to speed up and improve the accuracy of the process of analyzing and making recommendations for the treatment of oncological diseases in the Semipalatinsk region.

Keywords

Expert systems, information systems, artificial intelligence, neural networks, analysis, intelligent systems, databases.