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APPLICATION OF THE MACHINE LEARNING METHOD TO SOLVE THE PROBLEM OF MEDICAL DIAGNOSTICS

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Annotation. The paper solves the problem of creating a software package for computer diagnostics of gastritis. Patient examination indicators and their diagnoses are used as input data. To successfully solve the task, a logical approach to data analysis is being developed, which allows us to find the patterns necessary for qualitative diagnostics. These patterns are identified based on the data provided by specialists and include the results of patient examinations and existing medical practice experience in diagnosis. Systems of multivalued predicate logic are used for expressive representation of data. An algorithm is proposed that implements and simplifies the approaches under consideration. As a result, the developed software package selects the most suitable types of the disease with a predetermined accuracy according to the data of the diagnosis of patients. If it is not possible to make a diagnosis with a desired accuracy based on the results of the examination, then either the accuracy of the solution should be changed, or the patient is proposed to undergo an additional examination.

Keywords: diagnostics, knowledge base, algorithm, clauses, axioms

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