

## ABSTRACT

The thesis is presented in 78 pages. It contains bibliography of 42 references. 15 figures and 5 tables are given in the thesis.

The goal of this thesis is to develop mathematical model of analysis and prediction of survival in the treatment of rotavirus infection.

In the thesis existing solutions are analyzed – software that allow to build, calculate and perform decision tree analysis for clinical and other goals. They are compared in terms of the simulation solutions and the outputting graphics of functions. In the thesis, method of cost disease is used to solve the task.

Keywords: survival analysis, pharmacoeconomic analysis, decision tree, the cost of the disease.