This thesis deals with the issue of infections caused by Clostridium difficile and their diagnostics. In the introduction to the theoretical part basic characteristics of c. difficile are described, including small look back in history. Below are described the causes and manifestations of the disease, which the bacteria can cause and how it can be treated. There is also a mention of the epidemiological situation in the Czech Republic and in the world. In addition the possibilities of laboratory diagnostics, the detection of c. difficile, the principles of individual methods and the interpretation of results are mentioned. Finally, the work discusses the risk factors that increase the possibility of clostridial infections and the ways of prevention of this disease.

The following section describes the exact practical laboratory techniques for the individual methods, the necessary reagents and equipment. Then there are the results of the tested stool samples, which are obtained by using two methods. Methods and results are compared in this section.

In the conclusion of my work the findings resulting from the practical part are summarized. There are also evaluated the objectives set out in the introduction.