

This thesis mainly describes the question of Clostridium difficile diagnostic service. The first part briefly describes the characteristic of this bacterium. Further, the paper outlines common properties of the bacterium, the causes and manifestations of the diseases that it implicates and current opportunities of the laboratory service. The practical part of bachelors work deals with examination of toxin detection C.difficile in stool specimens, which was in case of positive result completed by cultivation. The cultivation and following Antimicrobial Susceptibility Testing (AST) is not routine task carried out in every clinical laboratory. PCR ribotyping is relatively new method that is provided rarely on the present. Generally, 195 patients have been tested in laboratory of Department of Medical Microbiology in Motol for Clostridium difficile toxin inherency in stool. Overall 30 samples have been tested as positive. The positive samples have been cultivated on special soil just for Clostridium difficile to acquire a clean culture. After that, the metronidazole susceptibility has been obtained from these gained isolates.