

ABSTRACT

Charles University in Prague

Faculty of Pharmacy in Hradec Králové

Department of Biological and Medical Sciences

Candidate: Bc. Veronika Švirlochová

Supervisor: Mgr. Marcela Vejsová, Ph.D.

Diploma thesis title: Evaluation of activity of potential antibacterial substances through the use of microdilution broth method

Background

The aim of this diploma thesis was to evaluate antibacterial activity of fifty-two newly synthesized substances.

Methods

Substances were tested through the use of microdilution broth method with eleven different concentrations. There were used eight bacterial strains and there were also used agents of nosocomial infections.

Results

Tested substances were divided into seven groups by their chemical structure. The most effective group were sulphonamides. There were two groups with minimal or zero antibacterial activity.

Conclusion

The results showed that the most sensitive strain was *Staphylococcus epidermidis* and the least sensitive strain was *Pseudomonas aeruginosa*. There was also consideration about the presence of different substituents in different groups and their influence of antibacterial activity.