

Abstract

Charles University

Faculty of Pharmacy in Hradec Králové

Department of Pharmacology & Toxicology

Student: Veronika Nováková

Supervisor: PharmDr. Jana Pourová, Ph.D.

Title of diploma thesis: Food interactions of antibiotics

Diploma thesis deals with clinically significant interactions between antibiotics and food. It defines basic concepts such as antibiotics, food, drug interactions and also drug-food interactions. The main part of the work deals with the characteristics of individual groups of antibiotics, describes their mechanism of action, including the antimicrobial spectrum, the main side effects and deals with the already mentioned interactions with food and beverages. St. John's wort, grapefruit, alcohol, or polyvalent ions in particular play an important role in these interactions, which can have a significant effect on the course of antibiotic therapy. The next part of this work deals with the effect of probiotics on the natural intestinal microflora, which is disrupted by antibiotics. The last part of the thesis deals with the issue of antibiotic resistance and the principles of correct and appropriate use of antibiotics, which have an impact not only on minimizing the emergence and development of bacterial resistance, but also help to prevent interactions, including drug-food interactions. These interactions are often not given the same attention as drug interactions, but their consequences may be similar. Prevention, or early detection of food interactions, should therefore be an essential and necessary part of the therapy of every patient, whether they are antibiotics or any other drugs.