

ABSTRACT

DIPLOMA THESIS: Safety of selected dietary supplements with regard to the content of food additives

SOCIAL AND CLINICAL PHARMACY DEPARTMENT, FACULTY OF PHARMACY IN HRADEC KRÁLOVÉ, CHARLES UNIVERSITY IN PRAGUE

AUTHOR: Jana Tížková

SUPERVISOR: PharmDr. Jitka Pokladníková, Ph.D.

INTRODUCTION: Usage of dietary supplements is increasing each year. But with this trend there are also concerns about their possible damaging influence, mostly due to present food additives. I have decided to map safety of dietary supplements from food additives point of view, because of spare information about their potential harmfulness.

OBJECTIVE: Goal of this work is to evaluate safety of bestselling immune system support according to food additives that they contain and analysis of most commonly occurring harmful additives influence on human health.

METHODOLOGY: List of bestselling dietary supplements was gathered from one of pharmaceutical chain brand. Data came from diverse list of dietary supplements, from which I have chosen those with supporting effect on immune system. They contain mostly substances gathered from *Echinacea* plants, specifically *Echinacea angustifolia*, *pallida*, *purpurea*, mushroom *Pleurotus ostreatus*, also those containing Probiotics, Royal jelly and mixture of oligosaccharides, nucleotides and aminoacids. Food additives contained in analyzed dietary supplements are evaluated according to Ing. Syrový's classification into five groups due to their harmfulness. Dietary supplements are classified into three

groups according to food additive with the worst mark. Products marked as safe do not contain any harmful food additive. Data were analyzed in MS Excel software.

RESULTS: Thirty three percent of analyzed dietary supplements are safe. Thirty seven percent of analyzed dietary supplements fall into first degree of harmfulness, twenty three percent fall into second degree and seven percent are in third degree.

CONCLUSION: Consumer has the possibility of choosing safe dietary supplements, which do not contain any harmful food additives. With potentially harmful products, there is a problem with getting to know amount of those harmful additives, because producer is not obligated, and usually not willing to release this information.

KEY WORDS: Safety, Dietary supplements, Food additives, Immune system