

## Abstract

Charles University in Prague

Faculty of Pharmacy in Hradec Králové

Department of biological and biomedical sciences

Author: Jana Vopeláková

Supervisor: PhDr. Zdeňka Kudláčková, PhD.

Consultant: MUDr. Pavel Dostál, Ph.D.

Title of diploma thesis: Intensive Care Medicine I- Septic shock and therapeutical options

**Background:** The aim of this thesis is to collect and analyze current information about the causes, pathophysiology and the possibilities of curing patients in the septic state and septic shock.

**Main findings:** Sepsis and septic shock are serious clinical syndromes which can even result in the death of thousands of people every year. The diagnosis and treatment of sepsis and the septic shock is demanding in various ways; mainly professionally, socially and also financially. Therefore there has been a constant effort to discover new possibilities in diagnosis and treatment. In the whole world, there have been carried out many pre-clinical and clinical researches, which are gathering the views on the broadly debated issue of sepsis.

The goal of this thesis is to give an overview of the current opinions on etiology, pathophysiology, diagnosis and the treatment of sepsis and septic shock, including the future prospect. The other the aim is to give an overview of recent as well as older studies, experiments which affected the development of diagnosis, prognosis and treatment of sepsis and septic shock.

**Conclusion:** In recent years, the treatment of sepsis and septic shock is relatively disunited and vague. The explanations for that are etiological and clinical variability of the syndrome, only a partial understanding of pathophysiological sepsis, the possibility of fast progress of the illness, the absence of universally applicable diagnosis and treatment and its economical demands.