

Abstract

The aim of work: The aim of work was to provide information about the issue of bloodstream infections. Describe methods of hemocultivation techniques that are routinely used in the laboratory of the Clinical microbiology and antibiotics surveillance at Na Homolce Hospital. Give an overview of number of positive blood cultures and representation of each bacterial genus and species isolated from the blood of selected patients in the Department of Intensive care at Na Homolce Hospital in 2014 and 2015.

Methods: The number of positive blood culture and the frequency representation of the various bacterial genus and species were monitoring from patients hospitalized in the Department of Vascular intensive care surgery and Intensive care unit of internal department at Na Homolce Hospital during the period from 1. 1. 2014 to 31. 12. 2015.

Results: At the Vascular intensive care surgery, 537 blood cultures were collected in the time period considered. 93 blood cultures were positive from this amount, which represents 17%. The most common isolates from blood cultures were coagulase-negative staphylococci (56%), and *Staphylococcus aureus* (19%), the genus *Candida* (9%), representatives of the family *Enterobacteriaceae* (9%), *Pseudomonas aeruginosa* (3%) and members of the genus *Enterococcus* (2 %).

At the Intensive care unit of internal department, total of 811 blood cultures were collected and from this amount was positive 119 blood culture, which represents 15%. The most common isolates from blood cultures were coagulase-negative staphylococci (37%), as representatives of the family *Enterobacteriaceae* (23%), *Staphylococcus aureus* (17%), *Enterococcus faecalis* (10%), *Pseudomonas aeruginosa* (4%), the genus *Streptococcus* (3%), *Bacteroides fragilis* (3%) and *Candida parapsilosis* (3%).

Conclusion: Bloodstream infections are still much discussed topic. Early diagnosis and localization of the sources of infection are essential prerequisites

for the initiation of effective treatment to prevent progression leading to death of the patient.

Key words: infection, sepsis, hemocultivation techniques