Introduction:
Bloodstream infections (BSIs) are associated with increased mortality in the ICU. The aim of the study was to evaluate the epidemiology and resistance patterns during the period 2013 to 2017.

Methods:
Bacteria and fungi isolated from the blood of patients hospitalized in a mixed ICU during the study period were retrospectively analyzed. Sensitivity testing was performed with disk diffusion (Kirby-Bauer) and Microscan Walkaway 96 plus for minimal inhibitory concentrations.

Results:
During the study period 1198 patients were hospitalized in the ICU. BSIs were diagnosed in 284 cases (23.7%). The isolated microorganisms were Acinetobacter baumannii (29%), Klebsiella pneumoniae (15%), other Enterobacteriaceae (8%), Pseudomonas aeruginosa (6%), Stenotrophomonas maltophilia (1%), enterococci (20%), staphylococci (8%) and Candida spp. (13%). Of the A. baumannii isolates, 97% were resistant to carbapenems, 9.6% to colistin, and 31% to tigecycline. Of the K. pneumoniae isolates 80% were resistant to carbapenems, 70% to colistin, and 4.5% to tigecycline. Of the P. aeruginosa species 44% were resistant to carbapenems and they were all susceptible to colistin. The rate of resistance to vancomycin was 56% for the E. faecium isolates, 5.5% for the E. faecalis, while the resistance to methicillin of the coagulase negative staphylococci was 90%. The most commonly isolate species of Candida was C.albicans.

Conclusion:
Multi-drug resistant isolates, especially A. baumannii and Enterobacteriaceae, are a serious problem in our ICU. Gram positive bacteria are less common, but the resistance of enterococci to vancomycin is significant. Antibiotic stewardship and infection control measures should be applied in a more strict way.