



# هفتمین کنگره بین المللی آزمایشگاه و بالین ( بیماری های عفونی )

## و اولین همایش ویروس شناسی بالینی

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### Distribution and antibiotic susceptibility pattern of bacterial isolates from blood culture of patients in Tehran, Iran

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Background: Bacterial bloodstream infections (BSIs) are a leading cause of significant patient morbidity and mortality. Bloodstream infections require early diagnosis and rapid antimicrobial treatment. Increasing prevalence of antimicrobial resistance rates among pathogens is a growing concern worldwide, so it is important to have knowledge about the antimicrobial susceptibility pattern of them to choose the empirical antimicrobial therapy for such causative bacteria. The aim of this study was to determine bacterial etiologic agents responsible for BSIs and evaluate their susceptibility pattern to commonly used antimicrobial agents. Method: Blood samples were obtained from patients referring to Pars General Hospital in a period from April to June 2013. The isolates were identified by standard biochemical tests and antimicrobial susceptibility testing was performed by the standard disk diffusion technique in accordance with the recommendations of the CLSI guideline. Results: Out of positive blood samples, 100% were recovered from inpatients; 51.7% from male and 48.3% from female. The predominant age group was 65 years old and over (48.3%). Among positive cultures of isolates, *Staphylococcus aureus* (25.8%) was the most frequent isolate, followed by *Coagulase-Negative Staphylococci* (22.6%), *Staphylococcus lugdunensis* (16.1%), *E. coli* (9.7%), *Klebsiella* spp. (6.5%), *Acinetobacter* spp. (6.5%), *Enterobacter* spp. (3.2%), *Streptococcus pyogenes* (3.2%), *Alpha-hemolytic Streptococci* (3.2%) and *Pseudomonas aeruginosa* (3.2%). Most of the blood culture isolates were susceptible to many of the tested antibiotics, except *Acinetobacter* spp. that was susceptible only to colistin. Conclusion: Our data emphasize the importance of continuous monitoring of antimicrobial susceptibility pattern of pathogens to take infection prevention and selection of appropriate antibiotic therapy.

**Keywords:** Blood Stream Infection, Bacterial isolates, Antibiotic resistance

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