

Prevalence and Antibiotic Resistance Patterns of Bacteria Isolated from Urine Culture in Qazvin Bu-Ali Hospital, Iran

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Abstract

Background and Objective: The prevalence of different bacterial species and antibiotic resistance varies according to geographical conditions. Hence, we aimed to identify the prevalence of bacterial agents isolated from the urine culture and also investigate the antibiotic susceptibility of bacteria.

Material and Methods: This cross-sectional study conducted on 7200 urine samples to identify the bacteria causing infections, using differential tests. The antimicrobial susceptibility was performed via disk diffusion method according to the Clinical and Laboratory Standards Institute (CLSI).

Results: The most common bacteria were *Escherichia coli* (736; 61.1%) and *Klebsiella pneumonia* (128; 10.6%) and *Enterococcus faecalis*, (88; 7.3%). The highest antibiotic susceptibility was related to Ciprofloxacin (174; 14.45%) and the lowest to Amoxicillin (795; 62.02%).

Conclusion: Owing to the lowest resistance, it is recommended that Ciprofloxacin be used as the first line of treatment. In addition, Amoxicillin and Ampicillin should be used the least during primary treatment of urinary tract infections.

Keywords: *Antibiogram, Bacterial Resistance, Urine Culture*