

## Evaluation of Antimicrobial Susceptibility Profile of Urinary Tract Infections in Massoud Medical Laboratory: 2018-2021

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**Abstract :** The aim of this study is to investigate the drug resistance pattern and the value of the MIC (minimum inhibitory concentration) method to reduce the impact of infectious diseases and the slow development of resistance. Method: The study was conducted on clinical specimens collected between 2018 to 2021. Identification of isolates and antibiotic susceptibility testing were performed using conventional biochemical tests. Antibiotic resistance was determined using Kirby-Bauer disk diffusion and MIC by E-test methods comparative with microdilution plate elisa method. Results were interpreted according to CLSI. Results: Out of 249600 different clinical specimens, 18720 different pathogenic bacteria by overall detection ratio 7.7% were detected. Among pathogen bacterial were Gram negative bacteria (70%, n=13000) and Gram positive bacteria (30%, n=5720). Medically relevant gram-negative bacteria include a multitude of species such as E.coli, Klebsiella spp, Pseudomonas aeruginosa, Acinetobacter spp, Enterobacter spp, and gram positive bacteria Staphylococcus spp, Enterococcus spp, Streptococcus spp was isolated. Conclusion: Our results highlighted that the resistance ratio among Gram Negative bacteria and Gram positive bacteria with different infection is high it suggest constant screening and follow-up programs for the detection of antibiotic resistance and the value of MIC drug susceptibility reporting that provide a new way to the usage of resistant antibiotic in combination with other antibiotics or accurate weight of antibiotics that inhibit or kill bacteria. Evaluation of wrong medication in the expansion of resistance and side effects of over usage antibiotics are goals. Ali ghorbanipour presently working as a supervision at the microbiology department of Massoud medical laboratory. Iran. Earlier, he worked as head department of pulmonary infection in firoozgar hospital, Iran. He received master degree in 2012 from Fergusson College. His research prime objective is a biologic wound dressing. To his credit, he has Published 10 articles in various international congresses by presenting posters.

**Keywords :** antimicrobial profile, MIC & MBC Method, microplate antimicrobial assay, E-test

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