**Evaluation of antimicrobial susceptibility profile of urinary tract infections in Massoud medical laboratory: 2018-2021**


## Abstract;

The aim of this study is to investigate the drug resistance pattern and the value of MIC method (minimum inhibitory concentration) to reduce impact of infectious diseases and slow development of resistance.

## Method:

The study was conducted on clinical specimens collected at masoud laboratory of Iran between 2018 and 2021.identification of isolates and antibiotic susceptibility testing were performed using conventional biochemical tests. Antibiotic resistance was determined using kibry-bauer disk diffusion and MIC by E-test methods. 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 bacterial pathogen 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 .aeroginosa , 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 a constant screening and follow-up programs for the detection of antibiotic resistance and the value of MIC drug susceptibility reporting that provide new way to usage of resistant antibiotic in combination with other antibiotics or accurate weight of antibiotics that inhibit or kill bacteria. Evaluation of wrong medication in expansion of resistance and side effects of over usage antibiotics are goals.