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**Title:** Study of antimicrobial susceptibility pattern among patients with urinary tract infection

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**Abstract:** Background: Urinary tract infections (UTIs) are among the most common bacterial infections in humans, and Escherichia coli is the predominant causative species. Although a wide variety of antimicrobial agents are used in the treatment of UTIs, but a growing problem of worldwide concern is the increasing resistance of pathogens to conventional antibiotics. The aim of this survey was to study of urine cultures for the most predominant bacteria recovered and investigation of their antimicrobial susceptibility pattern.

Methods: In total 7056 urine specimens were collected from patients referred to Imam Khomeini hospital whom suspected to have UTI. The specimens were cultured on MacConkey agar, Blood agar and Muller Hinton agar and colony count was performed for the isolates. All the isolates with colony count equal to 105 CFU/ml or more were considered as causative agent of UTI and were finally identified by using standard biochemical tests, and the positive cases were tested for sensitivity to different antibiotics by standard disk diffusion method.

Results: From total collected samples, 553 (7.8%) were positive in culture and had a colony count of $>105$ CFU/ml. These were belong to 376 female (68%) isolated organisms were E.coli with 326 cases (59%), and Klebsiella with 62 (11.2%). The isolated organisms showed the most antibiotics resistance to AM (92%), CF (82%), TE (81%), SXT (70).

Conclusion: Based on the results, we concluded that the majority of causes of UTI were E.coli in females and pseudomonas spp. in male patients. The most antibiotics resistance was seen to Ampicillin (AM), Sulfamethoxazole(SXT), and Cephalothin (CF) respectively.

**Presentation:** Poster