

Urinary Tract Infection: Etiological Agents and Patterns of Antibiotic Susceptibility in Yahya-Nejad Hospital , Babol, Iran

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Background & Objectives: Although, microbial etiology of urinary tract infections has been well established but they are changing many of their features, particularly antimicrobial resistance. The etiology of UTI is also affected by underlying host factors that complicate UTI such as age, diabetes and spinal cord injury. This study conducted to determine the distribution and antibiotic susceptibility patterns of bacterial strains isolated from patients with UTI (UTIs).

Methods: This study was carried out on all patients with UTI whether hospitalized or attended to outdoor patients department, from 1997 to 2003, Yahya-Nejad Hospital, Babol, Iran. All information about the results of urine culture, antibiogram and demographic data were obtained from hospital files. Antimicrobial susceptibility testing was performed by disc diffusion methods. Data was analyzed by SPSS11.

Results: Out of 1577 patients, 736(46%) and 841(54%) were hospitalized and outpatient cases, respectively. In total, 736 (46.7%) out of 1577 cases had UTI and *E. coli* (66.8%) was the most frequent pathogen followed by *Enterobacter* (10.33%) and *Pseudomonas* (5.21%) species. In overall, all the pathogens isolated here had high resistance rate to 1 or more antibiotics. For example, *E. coli* had 100% resistance rate to ampicillin and cephalotin and 68% to sulfamethoxazole. Furthermore, bacteria isolated from patients with malignancies, urinary catheter, history of UTI and aged more than 40 years were more resistance to several antibiotics. **Conclusion:** This study demonstrated that the resistant rate of etiological agents of UTI increased. It should necessary to apply proper strategy to reduce resistance rate to antibiotics in UTI pathogens.

Keywords: Antibiogram; Uropathogen; UTI