

عنوان مقاله:

Bacterial Urinary Tract Infections in North West of Iran: A Cross- Sectional Study

محل انتشار:

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خلاصه مقاله:

Background and Objective: Bacteria play a major role in urinary tract infections (UTIs); therefore, it is necessary to be aware of their regional prevalence and the causative pathogens for better prognosis and rapid treatment in clinical settings. This study aims to evaluate the prevalence of bacterial isolates involved in UTI samples and their antibiotics resistance pattern. **Materials and Methods:** In this cross-sectional study, bacterial infections from 4214 urine samples were analyzed from December 2016 to December 2018. After biochemical tests, disk diffusion susceptibility procedures were performed on all positive clinical cultures, according to CLSI guidelines. The obtained data were sorted and statistically analyzed by SPSS 26. **Results:** Out of 3582 suspected UTIs samples, 2006 (56%) were females and 1576 (44%) males in the 0-99 years old age range and mainly consisting of middle-aged and elderly patients (62.2%). *Escherichia coli* (53.43%) and *Staphylococcus epidermidis* (15.99%) were the most frequent isolates. Among gram negative bacteria, nitrofurantoin and among gram-positive, vancomycin represented the lowest resistance rates at 25.27% and 26.74% respectively. Piperacillin showed the least efficacy with a resistance rate of 76.04%, followed by cefazolin with a 74.94% resistance rate. In gram positive bacteria, vancomycin and gentamicin showed more promise with respective resistance rates of 19.34% and 27.34%. The highest resistance was associated with ampicillin (68.61%) and Trimethoprim/Sulfamethoxazole (66.06%). **Conclusion:** Alarming resistance rates were observed in ampicillin and piperacillin, which should be taken into account in therapy guidelines in this area. Prevalence of resistant strains can be avoided by developing appropriate healthcare policies and community awareness.

کلمات کلیدی:

Antimicrobial Resistance, Bacteria, Hospital-acquired Infection, Urinary Tract Infection

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