**Original article:**

**Isolation and antibiogram of uropathogens in a tertiary care teaching hospital.**

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**ABSTRACT**

**Introduction:** Urinary tract infections (UTIs) are one of the most common bacterial infections in humans, both in the community as well as in the hospital settings. A study on the changing antibiotic resistance pattern is pertinent for an appropriate treatment and for the prevention and control of the resistance strains.

**Methods:** Clean voided mid-stream urine samples were collected from 192 patients. The specimens were cultured and the isolates were identified using standard microbiological techniques. The antibiotic susceptibilities of the isolates were also determined by Kirby-Bauer disc diffusion method and compared. Statistical analysis was done by using simple percentage method.

**Observations & Results:** Of 192 specimens, 126 (65.63%) showed significant growth upon culture. Highest isolation rate was found in 21-40 years age group. UTI was found to be more common in females(70.63%). Escherichia coli was the predominant pathogen(49.21% ) followed by Klebsiella spp.(22.22%), proteus spp(12.70%), staphylococcus aureus(6.35%), Pseudomonas aeruginosa (3.97%), Enterococci(3.17%), Coagulase negative staphylococci(1.59%) and Acinetobacter spp.(0.79%). All Gram negative bacilli showed good response towards Amikacin, Nitrofurantoin, Piperacillin-Tazobactum and Imipenem in a range of 60-100%. All Gram positive cocci showed good response towards Linezolid, Vancomycin and Teicoplanin in a range of 75-100%.

**Conclusion:** The alarming rate of resistance to commonly used antibiotics for major urinary isolates E.coli and Klebsiella spp.precludes their use as empiric treatment for UTI in India. So, international guidelines are no longer applicable for treating UTIs in India and development of specific guidelines based on local susceptibility patterns are necessary.

**Key words:** Escherichia coli, Urinary Tract Infection, Bacterial Resistance