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**Original Article
Antibiotic sensitivity and resistance patterns in community acquired urinary tract infections in a tertiary care hospital in Pondicherry
Dr. Rameshprabu S1, Dr. Rameshkannan S2, Mrs. Priyanka G3**

1Post graduate, Department of Pharmacology, SMVMCH, Puducherry

2Post graduate, Department of Pharmacology, SMVMCH, Puducherry

3Assistant professor, Department of Physiology, Ragas Dental College, Chennai **Name of the Institute/college:** Sri Manakula Vinayagar Medical college and Hospital , Madhagadipet, Kalitheerthalkuppam, Puducherry (U.T.)- 605107

**Corresponding author:** Dr. Rameshprabu S

 **Abstract:**

**Introduction:** Urinary tract infection [UTI] is the most common human bacterial infection in the community as well as in hospital settings. Increase in resistance among the urinary pathogens to commonly used antimicrobial agents is gaining the attention worldwide in respect to its treatment.Accurate bacteriologic records of culture results may provide guidance for empirical as well as specific therapy. The present study was undertaken to assess the commonest bacteriological profile in urine culture specimens and their antibiotic sensitivity, resistance pattern in our hospital.

**Materials and methods:** The retrospective study was done and culture and sensitivity reports were collected from SMVMCH Microbiology department, for a period of three months from May to July, 2013 were analysed.

**Results:** The study included 92 (81.4%) females and 21 (18.6%) males including children. Out of 423 reports only 27% were culture positive. The culture results indicated E.coli was the most common species (54.0%) followed by Klebsiella (18.6%) and Coagulase Negative Staphylococci (9.7%). High percentage of isolates were sensitive to Imipenem (100%), Amikacin (87%), Nitrofurantoin (78%) and Ceftazidime (76%). High percentage of resistance was seen with Amoxicillin-clavulanic acid (75%), Nalidixic acid (57%), Ciprofloxacin (51%), and Norfloxacin (47%). The antibiotics resistant against E.coli are Nalidixic acid (74%),Amox-clav (74%), Ciprofloxacin (62%), and Sensitive to E.coli are Imipenem (100%), Amikacin (93%), and Nitrofurantoin (92%).

**Conclusion:** Our study recommends usage of Nitrofurantoin as oral empirical treatment for UTI. Imipenem, Amikacin and Cephalosporins if used parenterally can produce better results in patients with UTI.

**Key words:** UTI, Antibiotic Sensitivity, Antibiotic Resistance, Urine culture