

# Bacterial Isolates and their Resistance Patterns from Urinary Cultures, Western Odisha, VIMSAR, Burla

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## 1. Introduction

UTI is the leading cause of morbidity and health care expenditures. Urinary culture is a vital tool for the detection of microorganisms causing UTI. Drug Sensitivity patterns help in rationalizing the treatment. The present study was undertaken to determine the bacterial profile and resistance patterns from urinary cultures. \* [4]

## 2. Aim

To Study the bacterial isolates and their resistance patterns from urine cultures.

## 3. Material and Methods

A retrospective study was conducted from January 2022 to June 2022 in the Dept. of Microbiology, VIMSAR, Burla. Urine samples were collected from clinically suspected patients with aseptic techniques, processed, isolated, and identified according to standard microbiological techniques. Antibiotic sensitivity testing was done according to Kirby - Bauer disk diffusion method.

## 4. Result

A total of 324 pathogens were isolated from 984 suspected patients of UTI. Gram negative bacilli were predominant organisms. *E. coli* - 72 (22%) and *Pseudomonas* - 60 (19%) were predominant pathogens isolated. *E. coli* is highly resistant to Amoxiclav (22%) and Ampicillin (22%) and Cotrimoxazole (18%). And all *E. coli* were sensitive to Meropenem (20%), Nitrofurantoin (16%), Piperacillin - Tazobactam (16%), Aztreonam (12%). And *Pseudomonas* exhibit high resistance to Cotrimoxazole (21%), Nitrofurantoin (21%), and *pseudomonas* were sensitive to Piperacillin - Tazobactam (40%), Meropenem (20%), Aztreonam (20%).

## 5. Conclusion

Appropriate treatment of UTI should be based on the current knowledge of local bacterial resistance patterns of the hospital. Hence this kind of study will help in formulating management guidelines and antibiotic policy. \* [1, 2, 3, 4]

## References

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