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Letter to the Editor

## Microbiological profile and antibiotic resistance pattern of urinary tract infection in a tertiary care hospital

Sir,

Urinary tract infection (UTI), of varying severity is one of the most commonly encountered ailments in nephrology outpatient department (OPD). The commonest pathogens causing community acquired UTI (CAUTI) are *E. Coli*, *Proteus mirabilis*, *Pseudomonas aeruginosa* and *Klebsiella pneumonia*.<sup>1</sup> There is a rapidly rising trend of antibiotic resistance among these uropathogens, may be due to indiscriminate antibiotic usage and poor patient compliance. We conducted a retrospective analysis of all culture proven UTI cases that attended the nephrology

OPD of S. K. hospital, Trivandrum from August 2017 to July 2019 (24 months). 130 males and 121 females were included in the study. The mean age of the study group was 62.8 years with a male predominance in the age group above 50 years and a female predisposition in less than 50 years group. Commonest pathogen isolated in urine culture was *E. coli* (52.98%) followed by *Klebsiella* (39.09%), *Citrobacter* (8.76%), *Pseudomonas* (8.37%), *Enterobacter* (2.39%), *Enterococci* (1.99%), *Candida* (1.59%), *Acinetobacter* (1.2%), *Proteus* (1.2%), *Streptococci* (1.2%) and *Serratia* (0.4%).

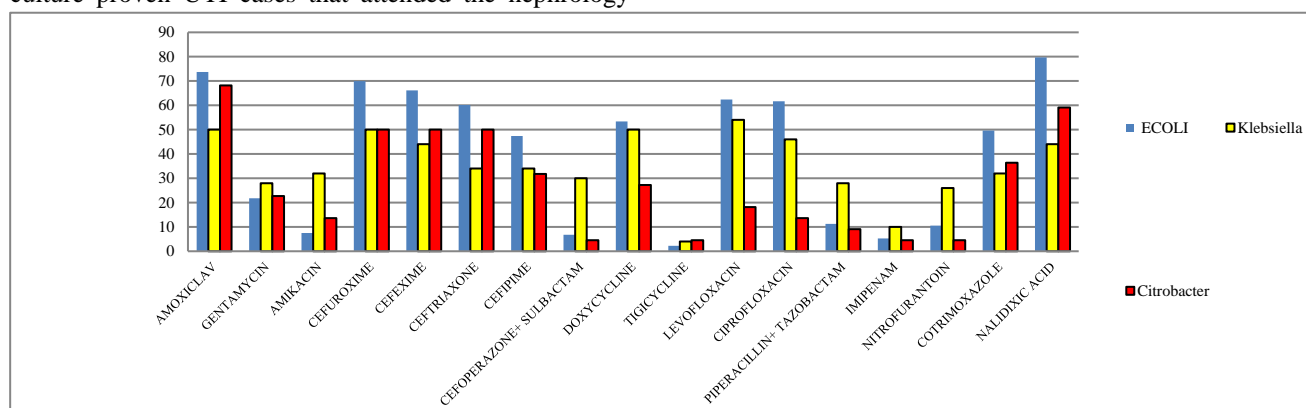


Figure 1: Antibiotic resistance pattern of *E. coli*, *Klebsiella* and *Citrobacter*.

We noticed the emergence of *Citrobacter* as a prominent uropathogen in CAUTI cases, especially in those with diabetes mellitus. *Citrobacter* was previously described primarily as a nosocomial pathogen in elderly hospitalized patients who underwent some form of endurological procedures or having obstructive uropathy.<sup>2</sup> The study revealed a significant resistance to amino-penicillin, cephalosporins, quinolones and cotrimoxazole by common uropathogens. Least resistance was noted for aminoglycosides, Imipenem and nitrofurantoin. Suggest 7-day course of nitrofurantoin for empirical treatment of CAUTI. Our study contributes to the expanding literature on antibiotic resistance pattern of uropathogens and aids in generating evidence-based recommendation for empirical management of CAUTI.

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