

REVIEWER'S REPORT

Manuscript No.: IJAR-53879

Date: 17.09.25

Title: Prevalence of multidrug resistant Enterobacteriaceae isolated from UTI - comparison between males and females above 60 years of age having Type 2 diabetes mellitus for more than 10 years

Recommendation:

Accept as it is YES

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		√		
Techn. Quality		√		
Clarity		√		
Significance		√		

Reviewer Name: PROF DR DILLIP KUMAR MOHAPATRA

Date:17.09.25

Reviewer's Comment for Publication.

(To be published with the manuscript in the journal)

The reviewer is requested to provide a brief comment (3-4 lines) highlighting the significance, strengths, or key insights of the manuscript. This comment will be Displayed in the journal publication alongside with the reviewers name.

Detailed Reviewer's Report

Key Points

The study focuses on elderly (>60 yrs) patients with Type 2 Diabetes Mellitus (T2DM) >10 years — a well-defined high-risk group.

Conducted in Bengaluru (Padmashree Diagnostic Center) over 6 months with 84 participants.

Main pathogens: *E. coli* (55.88%) and *Klebsiella* spp. (32.35%), consistent with Indian epidemiology.

High resistance observed to commonly used antibiotics: Ciprofloxacin, Ampicillin, Ceftriaxone.

Significant gender difference: Males showed higher resistance to Amoxicillin-Clavulanic acid ($p=0.0046$) and Piperacillin/Tazobactam ($p=0.0265$).

Highlights urgent need for antibiotic stewardship, surveillance, and tailored treatment strategies in elderly diabetics with UTIs.

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Strengths

1. Focused patient population (elderly T2DM >10 years) – reduces confounding and makes results clinically relevant.
2. Prospective design with proper inclusion/exclusion criteria.
3. Use of VITEK 2 system ensures reliable identification and susceptibility results.
4. Gender-based comparison is novel and adds value to existing literature.
5. Results align with previous Indian studies, showing external validity.
6. Ethical clearance obtained; methodology clearly described.

Weaknesses

1. Small sample size (n=84) – may limit generalizability and statistical power.
2. Conducted in a single diagnostic center (Bengaluru) – results may not represent wider populations.
3. Limited demographic/clinical data (e.g., HbA1c, duration of UTI symptoms, prior antibiotic use) not considered, though they could influence resistance.
4. Only Enterobacteriaceae studied – exclusion of other relevant uropathogens (Pseudomonas, Enterococcus, Candida) limits scope.
5. Resistance mechanism analysis (ESBL, carbapenemases, etc.) not performed.
6. No follow-up on clinical outcomes (e.g., response to therapy, recurrence).

Significance

Provides local epidemiological data on MDR Enterobacteriaceae in a vulnerable population (elderly long-term diabetics).

First study (to my knowledge) to highlight gender differences in resistance patterns in this specific group.

Reinforces the importance of continuous resistance surveillance to guide empirical therapy.

Findings have direct clinical utility for physicians treating elderly diabetics with UTIs in India.

Adds to the global concern on antibiotic resistance and the urgent need for stewardship programs.