



Antimicrobial resistance patterns of uropathogens isolated between 2012 and 2017 from a tertiary hospital in Northern Ethiopia

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Abstract:

Urinary tract infections (UTIs) are one of the most common infections in humans. Studies have shown that antibiotics for UTIs are usually prescribed empirically before the results of urine culture are available. The aim of the study was to assess the antimicrobial resistance patterns of bacteria isolated from urine samples over 6 years in Ayder Comprehensive Specialized Hospital (ACSH), in Mekelle, Northern Ethiopia. Methods: The majority of participants were female (57.8%). The three most commonly isolated bacteria were *Escherichia coli* (48.1%), *Klebsiella pneumoniae* (16.2%) and *Pseudomonas aeruginosa* (6.5%). *Escherichia coli* was found to be most susceptible to imipenem (100%) and most resistant to ampicillin (94.9%). Similarly, *K. pneumoniae* was sensitive to meropenem (100%) but resistant to penicillin (100%). Multidrug resistance to two or more antimicrobials was observed in 267 isolates (86.7%), with a nonsignificantly higher prevalence in females ($\chi^2 = 9.65$, $P = 0.29$). The overall pooled bacterial resistance was 57.8%. Conclusion: This study revealed that most of the urine isolates showed high levels of antimicrobial resistance to commonly prescribed antibiotics although they remained susceptible to imipenem, nitrofurantoin and meropenem. The results call for continuous surveillance of antimicrobial resistance for better management of patients with UTIs.

Biography:

Kald Beshir Tuem is currently working as an assistant professor of Pharmacology in Mekelle University, Ethiopia.



He holds BSc in pharmacy and MSc in Pharmacology from Addis Ababa University in November 2016. He presented an abstract on Anti-bacterial resistance and Adequacy of cancer related pain management. He is humble, cooperative and committed in his action.

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