

Abstract

Background: *E-coli*, a gram-negative entero-bacteria has been associated with urinary tract infections (UTIs) and antimicrobial resistances in human and animals. This study aimed at establishing the prevalence of *E. coli* among other bacteria causing UTIs in pregnant women seeking Medicare at Kisii teaching and referral hospital (KTRH), Kenya and to establish the drug susceptibility patterns of the isolated *E. coli*. Setting-The project was done at Kisii teaching and referral hospital, Kenya.

Methods: This hospital based experimental and cross-sectional study conducted in 3 months between March and June 2020 involved 119 pregnant women whose urine samples were cultured on Cysteine Leucine Electrolyte deficiency media (CLED) at 37⁰C overnight and sub-cultured on Mueller Hinton media. Bacterial identification was done by Gram stain and biochemical characterization using indole, methyl-red, Voges-Proskaur and citrate tests while susceptibility tests were conducted by Kirby Bauer disc diffusion technique.

Results: Out of the 119 urine samples, *E. coli* 28 (23.5%) was the second most prevalent after *S. aureus* 40 (33.6%). Others included *S. epidermidis* 27 (22.7%), and *Proteus* spp. 9 (7.6%). All *E. coli* isolates, 28 (100%) demonstrated resistance to sulfamethoxazole followed by amoxyclave 24 (85.75%), and ceftriaxone 20 (71.42%). They were least resistant to gentamycin 4 (14. 28%) and ofloxacin 6 (21.42%).

Conclusions: *E. coli* which largely exists as a commensal can cause UTIs and could be possessing antimicrobial resistant genes responsible for treatment failure. This demands for new effective therapeutic alternatives and more research on bacterial drug resistant.