ABSTRACT

There has been increasing resistance of Gram negative bacteria causing UTI to several antibiotics over years around the globe and has complicated management of UTI especially in under developed World. Study was carried out at Lancet Laboratories to assess the antibiotic resistance patterns so that effective antibiotics are identified especially for empirical management of UTI.

A cross sectional study was conducted on a total of 200 urine samples received at Lancet Laboratories Buganda Road from February to May 2015 to determine antimicrobial resistance pattern on Gram Negative bacteria. Mid-stream Urine was received and Cultured using standard Microbiology procedures, sensitivity was done using Kirby Bauer method. The overall prevalence of Gram Negative bacteria that caused UTI were at30.5 %(61/200),E. coli as the most prevalent with (80.3%: 49/61) followed by Proteus mirabilis (4/61, 6.71%), Serratia Species (3/61:4.9%), Raoultella ornithinolytica (2/61:3.2%), KlebsiellaPneumoniae (2/61:3.3%) and Kluyvera Species (1/61:1.6%).ESBL had a prevalence of 44.3% out of the 61 E. Coli were ESBL producer at a rate of 85.45% followed by Serratia species(7.2%), Proteus Mirabilis(3.7%) and Klebsiella pneumoniae (3.7%).ESBL producing organism are more responsible to the production of XDR compared to MDR, XDR were noted more prevalent with 42.6% more than MDR (13.1 %.). Fosfomycin, Ertapenem, Meropenem, and Imipenemwere the most effective antibioticsfollowed by Amikacin and Nitrofurantoin, the least effective were Ampicillinand Cephazolin.