

ABSTRACT

INTRODUCTION

Discovery of antibiotics to treat infection caused by bacteria is the most important development of modern medicine. But, resistance producing gram negative organisms like Ecoli, Klebsiella, Citrobacter are plasmid mediated inducible AmpC producers. AmpC class β – lactamases are cephalosporinases that are poorly inhibited by clavulanic acid.

MATERIALS AND METHODS

This study was conducted after obtaining IHEC approval at the Diagnostic microbiology department, PSG Hospitals during the period Jan 2016 – July 2017. Out of the 71067 various specimens received for culture and sensitivity at the microbiology department during the study period, 16552 microorganisms were isolated, of which 7123 (43.3%) were enterobacteriaceae identified after processing by standard microbiological techniques, colony morphology Gram's staining, motility and biochemical reactions

RESULT AND ANALYSIS

Out of the 256 cefoxitin resistant Enterobacteriaceae isolates, 182 (71.09%) of the isolates were found to be AmpC producers by the gold standard Modified 3 D (M3D) assay. Boronic acid inhibition test detected 176 (68.75%) isolates as AmpC producers

followed by Ceftazidime – Imipenem Antagonism test , Disc Antagonism Test , Double disc synergy test & Cloxacillin Combined Disc Diffusion test

CONCLUSION

Clinical laboratories needs to be upgraded with appropriate tools and qualified staff to recognize newer drug resistances emerging among Enterobacteriaceae. The most prevalent AmpC genes belonged to FOX, MOX and CIT in our study . The dissemination of these plasmid-mediated resistance genes within the hospital is an important public health issue. Identifying the types of AmpC may aid in hospital infection control

KEY WORDS E.Coli,Klebsiella pneumonia,Cefoxitin,Resistance,Amp C