



ABSTRACT

The major cause of nosocomial infections is the *Enterobacteriaceae* family and the microorganisms present in this family are acquiring multidrug resistance against the routinely used drugs. These are worldwide distributed. The purpose of this study was to determine the prevalence of plasmid mediated beta-lactamases in *K.pneumoniae* and *E.coli* at Ittefaq hospital (Trust) Lahore which is a tertiary care 450 bedded hospital with the latest equipment.

Standards protocols were used for inoculation, identification and isolation of *E.coli* and *K.pneumoniae*. Cefoxitin resistance was used as a primary screening protocol for AmpC enzyme production. AmpC disk test (EDTA disk) was used as a confirmatory test for AmpC enzyme production. Out of 1200 specimens only 520 clinical isolates were selected. Out of 520 clinical isolates, 80.97(n=421) were *E.coli* and 19.03% (n=99) were *K.pneumoniae*, isolated from OPDs, Surgical and non-surgical pathological specimens from the hospital. Total 20.57 % (n=107) cefoxitin resistant was detected. 13.13% (n=13) *K.pneumoniae* and 8.07% (n=34) were PABLs producers. 40.48% (n=34) and 56.52% (n=23) cefoxitin resistant *E.coli* and *K.pneumoniae* were isolated as PABLs producers. These results indicate the need to detect the other mechanism of resistance against cephamycins. The percentage of PABLs and ESBLs co-producers was 31.92% (n=15). Prevalence was mainly observed in the specimens from surgical sites in hospital as compared to population. Imipenem is recommended as a drug of choice against PABLs and tigecycline as a future drug.