Results: In this study, 221 (93%) GNB were confirmed ESBL producers (range between centers, 74 to 99%) of which 94% were nosocomial in origin. ESBL in intensive care unit (ICU) and non-ICU patients was 86% and 98% respectively. Among ESBLs in ICU, 13.5% were community acquired. Resistance to LEV was 73.3% > P/T 27.3% and > AMK 12.3%. No resistance to IMP and MER seen. Overall 61% were MDR. Four KS to LEV was 73.3% > P/T 27.3% and > AMK 12.3%. No resis- ESBLs in ICU, 13.5% were community acquired. Resistance
and non-ICU patients was 86% and 98% respectively. Among
were nosocomial in origin. ESBL in intensive care unit (ICU)
producers (range between centers, 74 to 99%) of which 94%

Conclusion: Prevalence of ESBL among GNB causing infections continues to be high in Indian medical centers. ERT shows good activity equivalent to the tested Group 2 carbapenems and may be considered for treatment of such infections.

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17.014

Early Detection of ESBL Producers from Clinical Samples Using Macconkey Agar with Ceftazidime
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Keywords: CMAC; ESBL Lactose-fermenters

Objectives: MacConkey agar with ceftazidime (CMAC) was used for early detection of extended spectrum beta-lactamase(ESBL) for clinical sample received from ICU.

Methods: A total of 374 clinical samples were received from ICU in the Dept. of Microbiology. Along with MacConkey agar and Blood agar, the samples were processed on MacConkey agar with ceftazidime (1 mg/L) for provisional detection of ESBL isolates. Lactose-fermenting colonies on MacConkey agar with ceftazidime(CMAC) were provisionally detected as ESBL producing isolates. These isolates were identified by standard methods. Presence of ESBL was determined by CLSI method (cefoxitin and ceftazidime disks with and without clavulanic acid).

Results: 128 isolates showed growth on CMAC of which 50 were lactose fermenters. 31 isolates were identified as E.coli and 19 as K.pneumoniae. All the 50 isolates were identified as confirmed ESBL producers.

Conclusion: Compared to phenotypic identification of ESBL producers, CMAC helps in early detection ESBLs which can be very useful from treatment point of view. Since in our hospital we have about 60% of ICU patients growing ESBL producers, this early detection helps the intensivist to start anti-ESBL therapy.

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17.015

Identification of AmpC Beta-Lactamases Using Phenotypic Tests and PCR in Clinical Isolates of Klebsiella spp. and Escherichia coli
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Background: Indiscriminate use of beta-lactam antibiotics has resulted in emergence of AmpC Beta-lactamases. Considering the lack of comprehensive studies from India the present study was undertaken to detect and characterize AmpC Beta-lactamases in clinical isolates of Escherichia coli and Klebsiella spp.

Methods: One hundred non-repeat clinical isolates each of Escherichia coli and Klebsiella spp recovered from pus, urine, blood and sputum, were collected from various hospitals of Delhi. These were screened for susceptibility to cefoxitin (30 µg) by disc diffusion method. The screen positive isolates were subjected to Modified 3 Dimensional test (M3D), AmpC disk tests 1 and 2 and Inhibitor (Boronic acid) based detection method. AmpC positive isolates were subjected to Polymerase chain reaction (PCR) using family specific primers and also tested for production of ESBLs and inducible AmpC Beta-lactamases.

Results: 34/100 (34%) of Escherichia coli and 21/100 (21%) of Klebsiella spp. were resistant to cefoxitin. Of the screen positive isolates 12 (35%) of Escherichia coli, and 5 (24%) of Klebsiella spp. were positive for AmpC by various phenotypic tests. Out of the AmpC positive isolates as many as 8/12 of Escherichia coli and 3/5 of Klebsiella isolates were positive for ESBLs. In 3/12 (25%) of Escherichia coli and 3/5 (60%) of Klebsiella isolates AmpC were inducible. PCR identified the AmpC of Escherichia coli as MIR/ACT-I and CIT types. Amongst Klebsiella isolates, the AmpC were found to be of MIR/ACTI, CIT, FOX and DHA families.

Conclusion: The incidence of AmpC production was higher (12%) in Escherichia coli than in Klebsiella (5%) isolates. However, co-production of ESBLs was much higher in Klebsiella (60%) than in Escherichia coli (25%) isolates. The AmpC Beta-lactamases in Indian isolates were of common families reported from different parts of the world.

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17.016

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Objectives: Urinary tract infections (UTI) are one of the most common infectious diseases diagnosed in outpatients and also constitutes the most common nosocomial infection in many hospitals. Escherichia coli remains the principal causative pathogen of UTIs both in outpatients and inpatients. In this study it was aimed to compare the resistance patterns of E. coli strains reported to be isolated from urine