**Anti-microbial suseptability of Escherichia coli and**

**Klebsiella spp: A review of 126 clinical isolates.**

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**ABSTRACT**

**Objective:** To analyze the resistance patterns of antibiotics against infectious agents causing blood, urine and pus infections.

**Study Design:** Prospective experimental study.

**Place and Duration:** Pharmaceutical Microbiology Lab, Department of Pharmaceutics, Faculty of Pharmacy, Hamdard University, Karachi from 8th January to 21st June 2018.

**Methodology:** As126 Clinical isolates of E.coli and Klebsiella spp. were collected from various pathological laboratories of Karachi. Antimicrobial susceptibility testing was performed by Kirby-Bauer method for disks of four antibiotics; Imipenem, Cefotaxime, Nalidixic acid and Gentamicin.

**Results:** Among 126 clinical isolates, (66%) are Escherichia coli, (34%) are Klebsiella species. (63%) isolates have been obtained from the urine culture, (33%) from blood and (4%) from pus causing urinary tract infection, bacteremia and soft tissue infection respectively. Imipenem is found to have significantly (p=0.0001) highest susceptibility against E.coli (87%) and Klebsiella specie.(91%). However, E.coli (40%) and Klebsiella specie. (93%) are highly resistant from Cefotaxime, while almost 50% organism are resistant from Gentamicin (53%) and Nalidixic acid (33%).

**Conclusion:** Imipenem has been found to be the most effective of all tested antibiotics while Cefotaxime has developed resistance from these microorganisms.

## Keywords: Antimicrobial susceptibility, Escherichia coli, Klebsiella, Disk diffusion method, Resistance, Antibiotics

**How to Cite This:**

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