**Bacteriological profile and drug resistance patterns of blood culture**

**Isolates: A five year audit from tertiary care hospital.**

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**ABSTRACT**

**Objective:** To identify the bacteriological profile of bloodstream infections and their antibiotic susceptibility pattern.

**Study Design:** Descriptive observational study (Retrospective study).

**Place and Duration:** Microbiology section, Dow University of Health Sciences from 2nd January, 2010 to 3rd January, 2015.

**Methodology:** Blood culture reports were screened for the presence of bacterial growth. Then Frequency of different bacterial isolates along with their antibiotic resistance pattern was noted and analyzed.

**Results:** During the study period, 13544 blood cultures were analyzed of which 18% were positive for growth. Among those 97% were bacterial isolates and only 2% were candida species. Among the Gram positive isolates, Coagulase negative Staphylococcus (20%) and Staphylococcus aureus (14%) were the commonest. Among the Gram-negative isolates, Salmonella species (18%) followed by Klebsiella species (15.7%) and E.coli (12.9%) and Pseudomonas species (7%). Staphylococcus aureus was found highly resistant to penicillin (95%), followed by erythromycin (68%), Co-trimoxazole (56%), Fusidic acid (54%) and Oxacillin (48%).Resistance was found to be on lower side against ciprofloxacin (38%), gentamicin (21%), chloramphenicol (13%) and Amikacin (6%).All isolates were sensitive to Linezolid. Salmonella species was resistant to ampicillin (54%) followed by Ciprofloxacin (44%), Co-trimoxazole (44%) and Chloramphenicol (44%).

**Conclusion:** Both Gram positive and Gram negative bacteria were responsible for blood stream infection. Piperacillin/Tazobactam, Meropenem and Amikacin were the most effective antibiotics against Gram negative bacteria while vancomycin and linezolid was most sensitive antibiotic against Gram positive bacteria.

## Keywords: Bloodstream, Infections, Bacteriological profile, Gram positive bacteria, Gram negative bacteria, Antibiotic susceptibility, Drug resistance.

**How to Cite This:**

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