

## Bacteriology of Wound Infections and the Antimicrobial Susceptibility Pattern among the Isolates

Divya Shekokar, Dilip Gedam, Mousumi Kilikdar, Nitin A. Ambhore, Rajesh Karyakarte, Ashwini Pisey

DrDilipGedam. Associate Professor, department of Microbiology, Government Medical College, Akola. Email id: [gedam\\_dilip74@rediffmail.com](mailto:gedam_dilip74@rediffmail.com)

### Abstract

**Objectives:** To study the causative agents of wound infections and to report the susceptibility pattern of drugs among the isolates. **Materials & Methods:** A cross-sectional study was conducted in the department of microbiology at a tertiary care hospital at Government Medical College, Akola over a period of one year from January 2016 to December 2016. A total of 324 wound samples were collected and further processed according to the standard Microbiology guidelines. **Results:** Of the 324 samples, 201 were culture positive and rest (123) were culture negative. Out of 201 culture positive isolates, 103 were Gram positive and 98 were Gram negative. In Gram positive isolates, *Staphylococcus aureus* was predominant (91.26%) followed by *Enterococcus* species (6.7%) and *Streptococcus* species (1.9%). Vancomycin was found to be the most effective drug against Gram positive organisms. In Gram negative, *Escherichia coli* (34.69%) was predominant followed by *Klebsiella* (28.57%) and *Pseudomonas* species (15.30%). Imipenem was found to be the most effective drug against Gram negative organisms. **Conclusions:** The study showed increasing antibiotic resistance in Gram-positive and Gram-negative isolates which leads to the failure of treatment. Thus, this study will be of great help for the clinicians for prescribing the suitable antibiotics depending on the susceptibility pattern and thus, improves outcome.