

# Bacteriological Profile of Burns and Wounds Infection in a Tertiary Care Hospital in Jammu

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Burn and wound infections are the most severe cause of mortality in patients in the burn and surgical units. The aim of this study is to determine the Bacteriological profile of burns and wounds infection in tertiary care hospital, Jammu. In this study a total of 180 Pus and skin swab samples were collected from inpatient and outpatient wards of Govt. Medical College, Jammu. Isolation and identification of microorganisms were done using the standard procedure. Disk diffusion test were performed for all the isolates for antimicrobial susceptibility. A total of 180 pus and burn wound swab were collected. During processing, out of 180 total samples 100 were found positive and 80 were sterile. The most common age group was in between 20 to 40 years. Out of 100 positive cultures, 34 (34%) were Gram Positive and 66 (66%) were found to be gram negative. In our study, *Escherichia coli* is the dominant bacteria i.e (20; 30.3%), followed by *Staphylococcus aureus* (18; 52.94%), *Pseudomonas* (16; 24.2%), *Klebsiella* (15; 22.7%), *Proteus* (9; 13%), *Acinetobacter* (4; 6.06%) and *Citrobacter* (2; 3.03%). The antibiotic susceptibility test of the bacterial isolate was performed by Kirby-Bauer disk diffusion method. Majority of the bacterial isolates were resistant to almost all the antimicrobials employed. In our study in Govt. medical college, *Escherichia coli* was the commonest isolate followed by *Staphylococcus aureus*. Vancomycin and Linezolid showed best activity for *S. aureus* and that for gram negative *bacilli* Imipenam showed best action. Gram negative organisms showed multidrug resistance as compared to gram positive organisms. Methicillin resistance in *S. aureus* was found to in 33.3% samples. Data of present study gives idea of prevailing antibiotic resistance pattern in burns and wound infections in this area. This study suggests that hygiene should strictly be maintained around burn patients to avoid opportunistic infections and need special care.

**Key words:** Burn, wound infections; bacteriology; multi-drug resistant; susceptibility pattern.