

**A study of post-surgical and general wound infections with  
a view to understanding, the bacteria involved in infection  
and their antibiotic sensitivity patterns.**

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Dissertation submitted to the University of Kelaniya, Sri Lanka  
in partial fulfilment of the requirements for the degree of  
Master of Science (Microbiology)

**Dec. 1995**

## ABSTRACT

Skin acts as a superficial defence barrier to microorganisms. Whenever the continuity of the skin is broken by some form of injury, the tissues beneath are exposed and attacked by microorganisms. The great majority of these organisms are not pathogenic and normally dealt with by the defence mechanisms in the body. However, several different varieties of organisms may be able to resist them and survive, causing infections.

A study of invading bacteria in post-surgical and general wounds, and their antibacterial sensitivity patterns were investigated in the present project. Wound causing bacteria were firstly isolated by using Blood agar and MacConkey agar media in-vitro condition. Isolated bacteria were grouped into relevant genera and Biochemical and Physiological tests were carried out, and the species were identified. Each bacterial species was tested by two antibacterial test methods i.e.. The disc susceptibility test and the plate dilution test, the zone diameter and minimum inhibitory concentration (MIC) value were determined. These results were compared with National Committee of Clinical Laboratory (NCCL) standards and resistant bacteria to each antibiotic were determined. In post surgical wound infection, eight bacterial isolates were identified from four patients and it was found that five of them were resistant to some antibiotics tested while three isolates were susceptible to all antibiotics tested. In general wounds, forty bacterial isolates were identified from thirty two patients and it was found that only twenty one were susceptible to all tested antibiotics while twenty seven isolates were resistant to one or more tested antibiotics. Both post-surgical and general wounds were mainly infected with *Staph. aureus*, *Ps. aeruginosa* and *Kleb. aerogenes*.