

**Cost Effectiveness of antibiotic
Prophylaxis in Demerdash Hospital
a Planned Prospective Study**

THESIS

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In General Surgery

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

﴿قَالُوا سُبْحَانَكَ لَا عِلْمَ
لَنَا إِلَّا مَا عَلَّمْتَنَا إِنَّكَ
أَنْتَ الْعَلِيمُ الْحَكِيمُ﴾

صدق الله العظيم

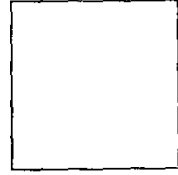
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*To
My Parents,
My Wife &
My Marvellous
Daughter*

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Introduction & Aim of the Work



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Introduction and Aim of the Work

At the time anesthesia was introduced by Morton in 1846, numerous operations had been performed. Elective operations remained an unacceptable alternative for most patients with surgical diseases, because almost all operative wounds become infected and almost half of patients who underwent a major operation died as a result of infection.

Today, wound infections are expected to occur in less than 1.5 percent of clean cases, less than 3 percent of clean contaminated cases, and less than 5 percent of contaminated cases (*Alexander & Delinger, 1991*).

The problem of wound infection takes its importance as it may simply prolong the hospital stay with extra costs, but more seriously, wound infection may blow out the whole effort done in surgery, it may cause a permanent morbidity or even endanger the life of the patient.

Methods of prevention of surgical infections are dependent on : meticulous surgical technique that precludes bacterial contamination, the effective use of perioperative antibiotics, and enhancement of the ability of the host to handle infection (*Conte et al., 1984*).

The preventive role of antibiotics, or surgical prophylaxis, is defined as : the administration of antimicrobial drugs during

surgery to patients without evidence of established infection in anticipation of preventing infection (*McGowan, 1995*).

The role of surgery in developing countries is well recognized, and progress has been made in identifying surgical needs, suitable operative techniques and facilities (*Coonick et al., 1992*).

A major concern in postoperative wound and deep infection, poor sterility and hygiene of operating theatres and wards, lack of trained personnel and delayed patient attendance to the hospital are among factors contributing to the high rate of post operative infection in developing countries (*Scott, 1990*).

The value of any indicated treatment is directly proportional to treatment outcome and inversely related to treatment cost. Evaluation of both the numerator (outcome quality) and the denominator (cost) of the value equation is subjected to many methodologic limitations (*Alexander, 1985*).