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Surgical Site Infections in Adult Patients Undergoing Surgeries in General Surgical Units of Teaching Hospital, Karapitiya

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Background: Surgical Site Infection (SSI) is one of the major complications in patients undergoing surgeries. SSI leads to increased hospital stays, readmissions and additional health care cost.

Objectives: To determine the incidence of SSI and associated risk factors in adult patients undergoing surgeries in general surgical units of Teaching Hospital, Karapitiya (THK). Further this study was aimed to study the pattern of development of SSI following surgeries and identify causative pathogens where possible.

Methodology: A prospective cohort study was conducted between September to December 2018. A total of 332 enrolled subjects were followed-up for 30 days post-surgery. Chi-square test was used to assess the associations of each variable with SSI and bivariate logistic regression to assess the predictors of developing SSI.

Results: Out of the 332 patients, 33 (9.94%) developed SSI. It was found that incidence of SSI was influenced by comorbid conditions such as diabetes mellitus (OR=3.02) and anaemia (OR=3.83). Length of preoperative hospital stay (OR=0.33), transfusion of blood (OR=4.89), use of drain (OR=4.73) and duration of surgery (OR=0.27) were found as the influencing procedure related risk factors. Majority (87.9%) of all SSIs developed within two weeks following the procedure. In 5 cases out of 33, SSI was diagnosed without microbiological evidence. The predominant pathogen responsible for the development of SSI in the study was *Coliform* spp. (36%). This was followed by *Escherichia coli* (25%).

Conclusions: Both patient-related and procedure-related factors play a role in the development of SSI at general surgical units of THK. In contrast to other studies *Coliform* spp. was the predominant causative pathogen for the development of SSI in the study.

Keywords: General Surgical Units, Incidence, Predominant Pathogen, Risk Factors, Surgical Site Infection