

Factors associated with surgical site infections within the first week post-operatively at Amana Regional Referral Hospital Tanzania.
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Background: Surgical site infection (SSI) is among the most common infections in hospitals that affect patients having surgery. It is linked to longer hospital stays, more morbidity, and higher costs for medical care, therefore this study is going to address about factors associated with the occurrence of SSI at Amana Regional Referral Hospital within the first week post operatively.

Objectives: To determine the prevalence and associated factors of SSI within the first week postoperatively at Amana Regional Referral Hospital.

Materials and Methods observational prospective hospital-based study conducted between March 2023 and July 2023 in the surgical ward at Amana Regional Referral Hospital.

All patients who underwent surgery were consecutively enrolled and followed for a period of 7 days.

On every follow-up, surgical sites were inspected for signs of SSI.

Questionnaires were used to record socio-demographic and clinical information from patients and clinical case files. Data were entered and analyzed using Statistical Package for the Social Sciences (SPSS) version 25.

Multivariate analyses were used to find associations between dependent and independent variables..

Results: During the study period, 258 patients were enrolled in the study, 6 patients passed away after the operation and 2 patients were referred and lost to follow-up.

As a result, 250 patients were available for follow-up and were monitored for 7 days.

The majority of the patients, 95 (38%), were between the ages of 30-44, while the least were under 14, with only 16 (6.4%) falling in this category. Males, 167 (67%), were the largest group of participants, while 41 (16.4%) had DM and hypertension as co-morbidities. Almost all of the patients, 204 (82%), were non-smokers

The study found that 22.8% of patients had surgical site infections (SSI) at ARRH, and the duration of surgery and wound class type were significant factors in causing SSI.

Conclusion: -This study found that 57 out of 250 patients (22.8%) developed SSI. Several factors were linked to SSI, including comorbidities, smoking, operator skill level, prophylactic antibiotics taken before surgery, shaving in the operating room or ward, length of surgery, and wound type. However, the two strongest predictors of SSI in this study were the length of the procedure and wound classification. The use of prophylactic antibiotics before surgery was found to be an important factor in preventing SSI. These factors can be modified, so these results will help reduce SSI rates after general surgery at ARRH.

Recommendations: -Surgical site infections (SSI) can lead to significant morbidity and mortality in patients who have undergone surgery. Therefore, it is important to focus on prevention measures at ARRH in order to reduce the prevalence of SSI. It would be beneficial for the hospital to provide regular training sessions and supervision for Surgeons on how to properly manage SSI.

Keywords: Surgical site infection, associated factors, modifiable factors, Dar es salaam, Tanzania