

Evaluation of Surgical site infection rate in a Tertiary Care Hospital, Karad.

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Background and Aim:

Surgical site infection (SSI) previously termed post operative wound infection is defined as that infection presenting up to 30 days after a surgical procedure if no prosthetic is placed and up to 1 year if a Prosthetic is implanted in the patient. SSI results in patient discomfort, prolonged length of hospital stay and increased cost. In other reports SSI was found to be second only to urinary tract infection as the commonest hospital acquired infection and actually the most commonly encountered form of nosocomial infection in surgical patients.

These include the degree of microbial contamination of the operation site indicated by wound class as clean, clean contaminated, contaminated and dirty, and also by patient age, sex and duration of surgery

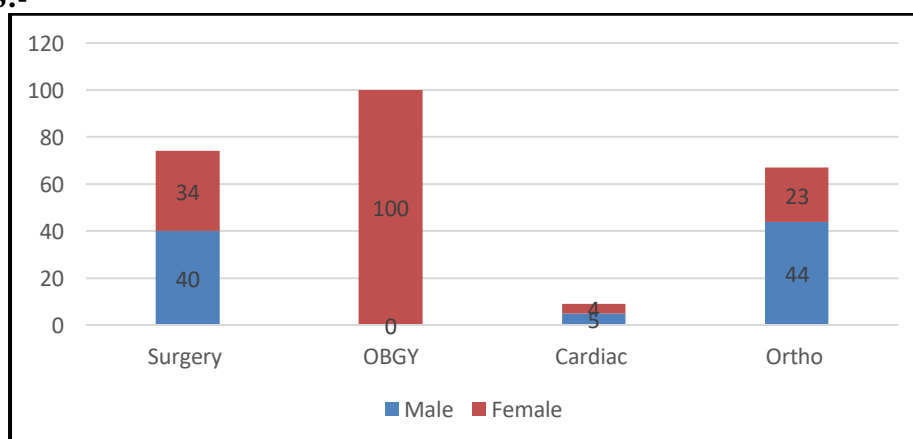
The aim of this study is to investigate the risk factors for SSI together with the identification of the etiological bacterial agents and their antimicrobial susceptibility in a major teaching hospital in Tertiary Care Hospital. To the best of our knowledge, local studies focusing on bacterial isolates incriminated in SSI and their antimicrobial susceptibility are scanty.

METHODOLOGY:-

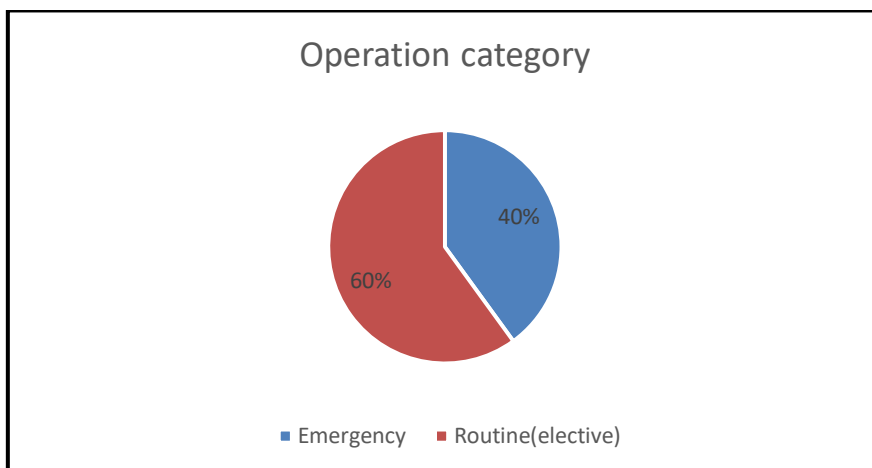
This prospective case series was conducted at tertiary care hospital during the period between June 1st and June 30th 2022. All of the 250 patients admitted to the General Surgery, Orthopedic, Cardiac, Obstetrics and Gynecology were included in the study. The demographic data of the patients and the diagnostic criteria were collected for the study. Other data like type of surgery, duration of surgery and clinical evaluation of wound.

SSI was diagnosed according to the guidelines of the Centers for Disease Control and Prevention – CDC. An operation was defined as any procedure involving skin incision undertaken in an operating theatre under any type of anesthesia. The operations were classified as clean, clean contaminated, contaminated and dirty.

RESULTS:-



GRAPH 1 SHOWS DEPARTMENT WISES OPERATED CASES.



THIS PIE CHART SHOWS EMERGENCY AND ROUTINE OPERATED CASES.

CONCLUSION:-

$$\begin{aligned}
 & \text{Number of surgical site Infection} \\
 \text{Surgical Site Infection Rate} &= \frac{\text{Number of Surgical Site Infections}}{\text{Number of Surgeries in a Month}} \times 100 \\
 &= \frac{0}{250} \times 100 \\
 &= 0\%
 \end{aligned}$$

The infection auditing tool is a useful strategy for identifying defects and guiding quality improvement interventions. In my audit out of 250 patient the period between June 1st and June 30th 2022 surgical site infection patients are not found in any department from Surgery, OBGY, orthopedic and cardiac in tertiary care hospital. I noticed that all staffs and doctors are taking every preventive measure for Surgical Site infection (SSI) in tertiary care hospital. Implementation of the Surveillance of SSI, Auditing, and Feedback bundle had a profound beneficial effect on the SSI rate, thereby reducing healthcare costs and improving patient quality of life.

In spite of the use of prophylactic antibiotics, SSI are still a real risk of surgery and represent a substantial burden of disease for both patients and healthcare services in terms of morbidity, mortality and economic cost. Changes in definition have focused attention on infection of the surgical incision, and factors associated with SSI are now being studied with a view to limiting the risk of infection.

This audit has shown that surgical techniques, skin preparation and the timing and method of wound closure are significant factors that can influence the incidence of subsequent infection. Antibiotic prophylaxis has also had a positive impact after certain types of surgery. Many other factors having an effect on the potential for infection and healthcare professionals should consider these before, during and after surgery.

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