

Surgical Site Infection: Cellulitis and Breast Surgery

ROYSTON HOSPITAL

ABSTRACT

RATIONALE

Postoperative Surgical Site Infection (SSI) is the most common cause of healthcare associated infection. SSI and cellulitis may occur more often in patients undergoing breast operations compared to other Class one “clean” general surgical operations.

In reconstructive breast operations, SSI can lead to loss of reconstruction, and the need for secondary surgeries.

MEASURE DESCRIPTION

Percentage of patients who develop a surgical site infection (SSI) or cellulitis within 90 days of undergoing a breast and/or an axillary operation.

DENOMINATOR

Number of patients \geq 18 years undergoing a breast and/or axillary operation.

- Inclusion Criteria: all breast and axillary procedures, including when combined with other procedures.
- Exclusion Criteria:
 - Patients who develop SSI after the 90th day;
 - Patients who had a combined procedure (breast or axillary procedure and an additional procedure at another site) who develop infection only at the non-breast/axillary surgical site.

GOALS

Enhanced surveillance of breast and axillary surgeries

Accurate outcome measurement and reporting

Drive improvement through the use of data

Implement best practice interventions
Reduce SSI rates by at least 25%

Provide performance feedback to clinicians

Interventions

Higher rates of infection in Breast and Auxillary discussed at Evolution Healthcare IPC (Infection Prevention Control) meeting March 2019. Three hospital sites agreed to participate in benchmarking.

Memorandum sent and face to face dialogue with Medical Specialists outlining the methodology and best practices for risk reduction.

Best practice bundle includes:

- Pre-screening for Staphylococcus aureus
- Chlorhexidine showers the evening prior to and the morning of surgery
- Nasal decontamination with Povidine iodine
- Consideration of prophylactic antibiotics

Baseline data collection FY2018 and FY2019.

Best practice bundle (treatment group) Royston FY2019 and 2020, control groups two Evolution hospitals.

Conclusion and Next Steps

Data shows a decrease in infection event rate from 5.5 to 1.05 (a 67 - 70% reduction, versus the goal of 25% reduction).

Next steps:

- Introduce best practice bundle across Evolution hospitals
- Present results to Medical Specialists
- Modify surveillance policy to include this additional patient population
- Identify opportunities for further improvement:
 - maintenance of normothermia in the perioperative period
 - appropriate operating room attire
 - antibiotic choice and timing
 - expansion to other surgical modalities.