Data to Drive Improvement

Reducing Surgical Site Infections in Colorectal Surgery

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Health
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Local Health District

Aim: By February 2018, there will be a 50 per cent reduction in Surgical Site Infections for adult colorectal surgery at Port Macquarie Base Hospital (PMBH)

Introduction:

In 2015 Coffs Harbour Health Campus (CHHC) and Port Macquarie Base Hospital participated in the Agency for Clinical Innovation (ACI) pilot implementation of the American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) with two other Australian Metropolitan Hospitals.

ACS provides facilities with quarterly risk-adjusted reports (SAR) to identify opportunities to improve the processes and outcomes of surgical care. This data is used to drive targeted quality improvement projects to improve surgical outcomes for patients. An analysis of SAR highlighted that Port Macquarie Base Hospital had a high incidence for surgical site infections (SSI), specifically within colorectal surgery.

Method:

Each week the Surgical Clinical Reviewers at each facility systematically selects a sample of surgical patients (30-40 patients per 8-day cycle, per facility) collecting extensive clinical data through the review of medical records & conversation with the patients.

A multidisciplinary focus group identified potential local causes of SSI using:

- NSQIP best practice guidelines[1]
- WHO SSI guidelines[2]
- CDC SSI guidelines [3]

Clinical practice improvement (CPI) methodologies highlighted that a “bundle” approach would be the most beneficial way to address the possible causes of the clinical variations.

PMBH surgical services chose to focus on the implementation of four recommendations:

- New surgical skin preparation
- New post-operative dressing (which reduced the number of wounds requiring re-dressing or reinforcing)
- Separate closure tray and compulsory changing of surgical gloves after re-anastomosis and prior to closure.
- Monitoring of pre-operative blood glucose levels

Results:

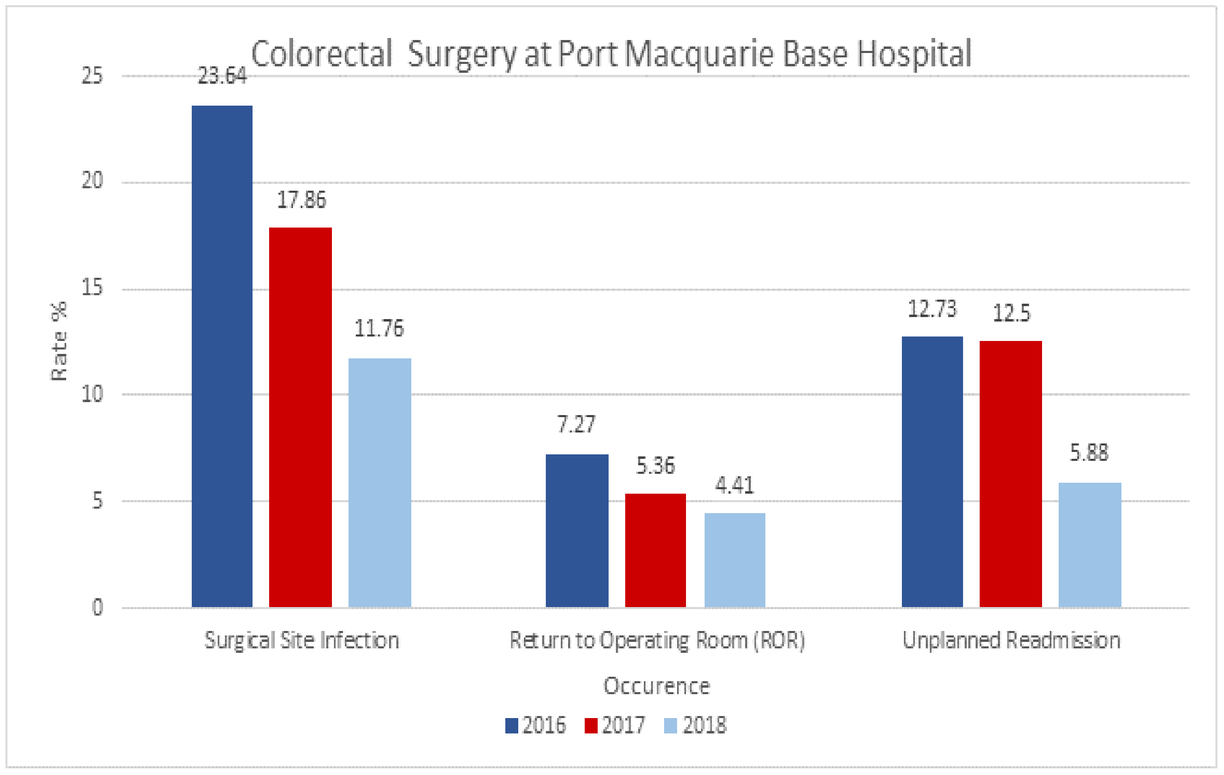
With the implementation of the recommendations and discussions around the quality improvement project, clinicians felt ***empowered*** to engage in discussions about current system-based processes and practices.

Increased awareness of the surgical outcomes and changes to system-based practices within the LHD, has seen the rate of SSI in colorectal Surgery in PMBH consistently reducing.

The results over two years has seen a reduction in SSI by 50% in colorectal surgery and a consistent downward trend in all surgical specialties.

A flow on improvement from this project has been demonstrated by the reduction of unplanned readmissions and return to theatre.

Reduction of surgical site infections has seen a decrease in the cost per patient as well as improving theatre efficiencies and resource utilisation.



References:
1. ACS NSQIP Operation Manual (2019)
2. World Health Organization- Global Guidelines on the Prevention of Surgical Site Infections (2016)
3. Centre for Disease Control and Prevention- Guideline for Prevention of Surgical Site Infection (2017)

Conclusion:

Robust local clinical data compared with peer facilities, empowers and engages clinicians to look at the potential causes of the clinical variations and implement recommended practices to improve the surgical care of patients.

Staff are engaged and enthusiastic in identifying areas of ongoing potential improvement, and seek out the data to assist in the ongoing development of quality improvement strategies.

Due to the successful decrease in SSI , the NSQIP program has moved from a pilot phase to a permanent program within MNCLHD and is now extending to other surgical specialties.

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