

Colorectal SSI Prevention: Is there any Correlation?

Facilitating exemplary care across the continuum to the surgical patients of Kaiser Permanente



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Introduction

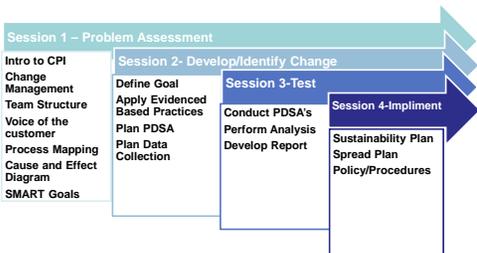
The Kaiser Permanente (KP) Northern California (NCAL) NSQIP Collaborative Journey began in 2006 with the first NCAL NSQIP site, KP Walnut Creek Medical Center, leading the charge. By 2010 there were 7 facilities in NCAL participating. In 2011 the decision was made to form a NCAL NSQIP Collaborative including all 21 NCAL facilities. Kaiser Permanente Northern California has 21 Medical Centers, 67 medical office buildings, and serves 3.4 million members. We new NSQIP would improve the care of our surgical patients which makes up 40% of our inpatient population.

Our NSQIP Journey



Over the course of a year, in partnership with the Kaiser Permanente Care Management Institute, four CPI trainings were held for our surgeon champions (SC) and surgical clinical reviewer's (SCR). Surgeons and SCR's formed PI teams at their local medical centers, created charters, assessed their current state, developed and conducted small tests of change using the Plan-Do-Study-Act (PDSA) methodology. The PI teams then implemented their PDSA tests into local workflows.

Performance Improvement is Foundational



Methods

In October 2012, after much testing and literature review, agreement was reached on five standardized bundle element definitions. This was in alignment with the standardize and simplify approach. These were processes that could be measured for correlation with our SSI outcomes. We started the project with five bundle elements and in 2013 added clean closing trays based on the Joint Commission for Transforming Healthcare work on SSI.

Add Closing Trays



Uncoordinated surgical team activities and breaks in the sterile fields increased the risk of wound contamination and patient susceptibility to infection. The risk of wound contamination was most often identified with bowel anastomosis, digital rectal examination(DRE), and the closing process.

Establish standardized closing process.

Standardize the set up of instruments and the instrumentation set used for clean versus "dirty" parts of the surgical procedure.

Results

MIDAS Tool

Focus: [R-NSQIP COLORECTAL SSI] Date: [5/5/2014]

Does case meet inclusion criteria for Colorectal SSI study? Yes No

If no, please enter CPI code:

1. Was CHG wipe used before surgery?
2. Was patient actively warmed?
3. Was a wound protector used?
5. Was antibiotic redosed after 3 hours?
6. Was separate clean closing tray used?

Comments:

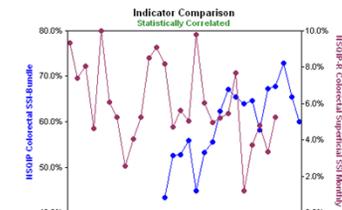
In order to measure compliance with the bundle measures a tool was developed in MIDAS. This data will allow comparing bundle element adherence with SSI rates to identify which bundle elements have the greatest impact. We have now hardwired Weight based antibiotic dosing and normothermia. The NCAL regional target for colorectal SSI is set at an aggressive 7.4% for a rolling 12 months, based on the ACS NSQIP national average.

Process measures and SSI outcomes are reported quarterly using a Colorectal SSI Prevention dashboard.



Conclusions

There have been many challenges implementing a standard CPI project across 21 medical centers. A strong foundation was built through CPI training and use of a data base for measuring process measures. Standardizing the bundle and measuring bundle adherence will allow us to determine which measures are making an impact on our SSI rates. We are now starting to see correlation with the use of the bundle and our outcomes.



What have we learned on our journey?

- #1 It takes a Village
- #2 Performance Improvement skills are foundational
- #3 Standardization makes it easy to do the right thing
- #4 It matters less what the bundle is and more that it is applied reliably

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