SETTING THE STAGE

Describe how this project is consistent with your strategic plan and how leadership guided and sustained performance expectations.

> San Juan Regional Medical Center (SJRMC) has a robust strategic planning process structured to understand our community’s needs and to provide strategic direction throughout the organization. Key inputs include external information such as a Community Needs Assessment and health status of population served. Early in 2017, SJRMC’s Senior Leadership team participated in a strategy retreat to review key inputs and refine objectives for defined pillars. Quality is one pillar. Using a SWOT exercise, it was revealed that Colon Surgical Site Infection (Colon SSI) rate was higher than desired.

Why did you select this project and what methods were used to identify the need?

> We reviewed two independent data sources which identified SSI Colon as an improvement opportunity to be addressed in the short term. First, we used SJRMC’s Harm Scorecard to track individual patient safety indicators and hospital acquired conditions. We noted an unfavorable trend of Colon SSI occurrences in Q1 of 2017. Second, we used the Colon SSI data reported through the Hospital Improvement Innovation Network (HIIN). Through HIIN, we were able to compare outcome data with hospitals at state and hospital levels in HIIN.

PROJECT DESIGN

Who was involved in the improvement effort

> Various staff members were involved including Senior Leadership, Infection Control, Childbirth Center, Medical Nursing Unit, Medical Staff, and Perioperative Services.

What methodology was used?

> We used the DMAIC methodology (Define, Measure, Analyze, Improve, and Control).

> DEFINE: We prioritize each action plan a short- or long-term project. The Colon SSI project was prioritized as short-term. Next, we developed a charter to outline deliverables and expectations. This was a 90-day project requiring weekly reports to Senior Leadership. A multidisciplinary team convened to review and integrate evidence based practices into processes. Team members were from Childbirth Center, Infection Control, Medical Nursing Unit, Medical Staff, and Perioperative Services.

How was the data collected and how you used the data to guide your process improvement efforts?

> MEASURE: Data available to the team that was used to enhance perioperative processes included:
  » Routine Infection Control Surveillance provided real-time data
  » HIIN database used for industry benchmarking, cost, length of stay
  » Bundle compliance
  » National Healthcare Safety Network (NHSN) rates and SIR
  » CMS and Value Based Purchasing data
> **ANALYZE**: We used baseline data to identify three primary areas of focus. The first was a need to identify a single “source of truth” for process and outcome data. Second, we performed a Gap Analysis of our perioperative steps against best practices (Appendix A) for all phases of the process: pre-procedural, procedural, and post-procedural. Finally, the team, using collaborative effort, guided implementation of evidence-based practices.

**RESULTS**

Describe the results including patient outcomes, process changes and service delivery results

> **IMPROVE** (Service Delivery):

  » **PROCESS CHANGES** including:

    – Preoperative changes designed to optimize the patient’s health prior to surgery
    – Perioperative process redesign structured through Protocol and Order Set development

  » **PATIENT OUTCOMES**

Since the institution of the Colon SSI Improvement program (October 1, 2017 through our most current reporting period ending June 30, 2018) we have decreased our overall rate from 6.06% to 4.87%. Moreover, this is a benefit for the health of our community. And finally, these results will positively influence our overall hospital rating from CMS.

**LESSONS LEARNED**

We identified several cycles of improvement during this project.

> Limiting the scope to elective colon procedures made data collection quite cumbersome and related benchmarks could not be found. Later, these process improvements were extended to urgent and emergent colon surgeries. This helped to maintain standardization of the process and supported provision of the same level of care across the spectrum.

> Each of the four General Surgeons has a good deal of influence on the strength of this process. This influence begins through initial discussions with the patient at the San Juan Health Partners General Surgery Clinic using standardized education materials, and continues through adherence to the standardized processes put into place as a result of this project. Ensuring a thorough understanding of all expectations and their rationale by the Surgeons is paramount to gaining a high level of buy-in.

> Train in the standardized process before any procedures are performed by new medical staff.

> Reinforcement of the standardized processes by Perioperative staff is a key supportive mechanism to ensure appropriate follow-through and execution.

**SPREAD AND SUSTAINABILITY**

> **CONTROL** (Sustain): Process and outcome data continue to be collected monthly. In addition, identified Colon SSI events are reported by Infection Control in the daily house-wide safety huddle. The report includes the current days without an event, and the most days lapsed without an event. As of August 3, 2018, there have been 88 days since the last identified Colon SSI.

> This project is scheduled for a 12-month status report to Quality Council in October, 2018. This report will convey details about outcomes and any concerns or issues that may need to be addressed. If actual performance is not meeting established goals, the expectation is for the process owner to have developed a response plan and recommendations that will get the process back on track.