

2.1 Attach Logic Model*

Successful Surgical Site Infection (SSI) Prevention Practices				
Inputs	Activities	Outputs	Outcomes	Impact
Hospital Staff	Assessing patient’s signs and symptoms for colon procedure or abdominal hysterectomy SSI and implement infection control practices to reduce these SSIs.	Data showing the number of patients that developed a colon procedure or abdominal hysterectomy SSI.	<u>Short-Term</u> Facility leadership understands if they are an outlier for colon procedure or abdominal hysterectomy SSI. <u>Intermediate Term</u> Reduction of SIR. <u>Long-Term</u> Optimal patient care and colon procedure and abdominal hysterectomy SSI prevention.	Decreased cost due to reduced infections and need for hospitalization.
Clinical Practice Guidelines	Guiding patient care and infection control practices.	Decreased colon procedure and abdominal hysterectomy SSI and SIR.		Decreased patient length of stay.
Healthcare Personnel Education	Training patient care staff on appropriate aseptic technique and other infection control practices. Daily audits.	Decreased colon procedure or abdominal hysterectomy SSI and SIR.		Decreased readmissions due to colon and abdominal hysterectomy SSI.
Appropriate preoperative and postoperative practices	Ensuring that practitioners understand appropriate dosing, timing, and choice of preoperative parenteral antibiotic prophylaxis. In addition to preoperative glycemic control and patient maintaining normothermia.	Reduced risk of infectious complications.		Decreased morbidity and mortality from colon procedure and abdominal hysterectomy SSI.
Surveillance	Documenting source of patient signs and symptoms, diagnostic testing, and care provided.	Acknowledgement from facility leadership if they are an outlier for colon procedure and/or abdominal hysterectomy SSI.		
Feedback Mechanisms				
NHSN: CDC’s National Healthcare Safety Network (NHSN), the nation’s most widely used HAI surveillance system, is a shared resource for HAI prevention. More than 37,000 active hospitals, long-term care facilities, and other healthcare facilities provide data to NHSN, which in turn is used for national- and state-level analyses, such as the HAI Report, and for targeted prevention initiatives by healthcare facilities, states, regions, quality groups, and national public health agencies, including CDC. Care Compare: For people with Medicare, Care Compare is a tool that provides the public with facility healthcare associated infections SIRs. This allows the public to make more informed decisions about where to get their healthcare. CMS Hospital Inpatient Quality Reporting Program (HIQR): Under the Hospital Inpatient Quality Reporting Program, CMS collects quality data from hospitals paid under the Inpatient Prospective Payment System.				

with the goal of driving quality improvement through measurement and transparency by publicly displaying data to help consumers make more informed decisions about their health care. It is also intended to encourage hospitals and clinicians to improve the quality and cost of inpatient care provided to all patients.

Assumptions

Facilities will implement clinical practice guidelines to reduce colon procedure and abdominal hysterectomy SSI in their patients.

External Factors

Changes to government policies and regulations.

Previously identified interventions have been shown to reduce the incidence of surgical site infections (SSIs) including, but not limited to, use of sterile techniques, avoidance of preoperative shaving of the operative site, preoperative decontamination of the surgical site, administration of preoperative prophylactic antibiotics within a prescribed timeframe, maintaining glycemic control in diabetic patients, and providing an increased inspired fraction of oxygen to the patient during and immediately following surgery. As facilities improve their adherence to these infection prevention practices, their SSI events and SSI SIRs are both expected to decrease.

Reference:

Berríos-Torres SI, Umscheid CA, Bratzler DW, Leas B, Stone EC, Kelz RR, Reinke CE, Morgan S, Solomkin JS, Mazuski JE, Dellinger EP, Itani KMF, Berbari EF, Segreti J, Parvizi J, Blanchard J, Allen G, Kluytmans JAJW, Donlan R, Schechter WP; Healthcare Infection Control Practices Advisory Committee. Centers for Disease Control and Prevention Guideline for the Prevention of Surgical Site Infection, 2017. JAMA Surg. 2017 Aug 1;152(8):784-791.

Calderwood MS, Anderson DJ, Bratzler DW, Dellinger EP, Garcia-Houchins S, Maragakis LL, Nyquist AC, Perkins KM, Preas MA, Saiman L, Schaffzin JK, Schweizer M, Yokoe DS, Kaye KS. Strategies to prevent surgical site infections in acute-care hospitals: 2022 Update. Infect Control Hosp Epidemiol. 2023 May;44(5):695-720.