Fighting the Down and Dirty of Colon Rectal SSIs

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Fighting the Down and Dirty of Colon Rectal SSIs

Perioperative Services
Lehigh Valley Health Network, Allentown, Pennsylvania

Problem Statement:

The threat of Surgical Site Infections continues to be an ongoing concern with all surgeries. In colon rectal surgery an increased incidence of SSIs exists due to clean and dirty areas within varying parts of the procedure. Within our institution, standardized measures were not in place to segregate clean and dirty areas of the sterile setup during colon rectal cases. Additionally, standardization to re-establish a "clean" field after the anastomosis of the bowel did not exist. Using dirty equipment and dirty gloves after the cleanliness of the field has been re-established increase the potential for SSIs.

Goals/Purpose:

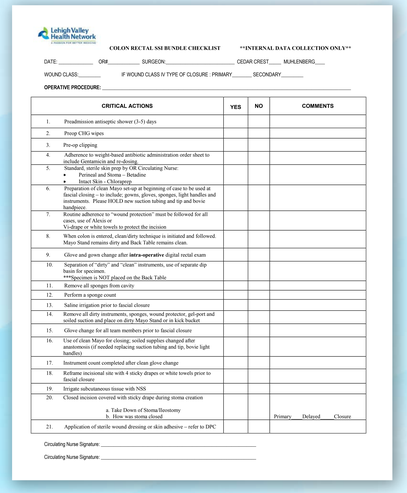
The goal of standardized measures is to decrease the potential for SSIs. Using evidence based practice (EBP); the standardized approach for every colon rectal surgery was implemented in hopes to ultimately decrease SSIs.

Methodology:

Using EBP a Surgical Site Infection Taskforce created a checklist named the 'Colon Rectal Bundle'. The Bundle consists of multiple surgical interventions before, during and upon closure of Colon Rectal Surgery to isolate the "dirty" contents of the bowel and adhere to strict sterile technique.

To increase buy-in from staff, front line care givers were instrumental in the creation and implementation of the bundle.

- Preadmission Chlorhexadine Gluconate shower
- Preoperative CHG wipes
- No hair removal/immediate hair clipping
- Adherence to weight-based antibiotic administration, to include Gentamicin
- Standardize skin prep
- Preparation of "clean" mayo stand for closure



Lehigh Valley Health Network

COLON RECTAL SSI BUNDLE CHECKLIST ****INTERNAL DATA COLLECTION ONLY****

DATE:_____ OR#_____ SURGEON:_____ CEDAR CREST____ MUHLENBERG____

WOUND CLASS:_____ IF WOUND CLASS IV TYPE OF CLOSURE : PRIMARY_____ SECONDARY_____

OPERATIVE PROCEDURE: _____

	CRITICAL ACTIONS	YES	NO	COMMENTS
1.	Preadmission antiseptic shower (3-5) days			
2.	Preop CHG wipes			
3.	Pre-op clipping			
4.	Adherence to weight-based antibiotic administration order sheet to include Gentamicin and re-dosing			
5.	Standard, sterile skin prep by OR Circulating Nurse: • Perineal and Stoma – Betadine • Intact Skin –Chloraprep			
6.	Preparation of clean Mayo set-up at beginning of case to be used at fascial closing – to include, gowns, gloves, sponges, light handles and instruments. Please HOLD new suction tubing and tip and bovie handpiece			
7.	Routine adherence to "wound protection" must be followed for all cases, use of Alexis or Vi-drape or white towels to protect the incision			
8.	When colon is entered, clean/dirty technique is initiated and followed. Mayo Stand remains dirty and Back Table remains clean.			
9.	Glove and gown change after **intra-operative** digital rectal exam			
10.	Separation of "dirty" and "clean" instruments, use of separate dip basin for specimen. ***Specimen is NOT placed on the Back Table			
11.	Remove all sponges from cavity			
12.	Perform a sponge count			
13.	Saline irrigation prior to fascial closure			
14.	Remove all dirty instruments, sponges, wound protector, gel-port and soiled suction and place on dirty Mayo Stand or in kick bucket			
15.	Glove change for all team members prior to fascial closure			
16.	Use of clean Mayo for closing; soiled supplies changed after anastomosis (if needed replacing suction tubing and tip, bovie light handles)			
17.	Instrument count completed after clean glove change			
18.	Reframe incisional site with 4 sticky drapes or white towels prior to fascial closure			
19.	Irrigate subcutaneous tissue with NSS			
20.	Closed incision covered with sticky drape during stoma creation a. Take Down of Stoma/Ileostomy b. How was stoma closed			Primary Delayed Closure
21.	Application of sterile wound dressing or skin adhesive – refer to DPC			

Circulating Nurse Signature: _____

Circulating Nurse Signature: _____

Intra-operative Measures:

- Separation of "dirty" and "clean" instruments
- Routine adherence to "wound protection" for all cases
- Glove change and sterile sleeve application after intra-operative digital rectal exam or draping
- Specimen considered dirty and isolated in basin prior to handoff
- Extra suction, cautery tip, and light handle covers changed after an anastomosis
- Glove and instrument change for fascial closure
- Saline irrigation of fascia and subQ prior to closure
- Use of clean Mayo instrumentation for closing
- Standard application of wound dressing
- Continuation of OR wound dressing for 48 hours
- Reframe incision site with clean towels or sticky drapes after bowel re-anastomosis
- Irrigate subcutaneous tissue with saline prior to closure.
- During stoma creation, cover the incision site with a clear adhesive drape

Evaluation/Results:

Ongoing audits of the C/R Bundle checklist are conducted by the SSI Taskforce for physician and staff compliance of the bundle. Continued awareness and education provided as the process is standardized across our network. A decrease in SSI cannot be attributed to one measure as multiple interventions were implemented by the Taskforce.

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