Colorectal SSI Prevention Bundle

Pre-Testing/Office Setting
1. Education
   Give patient the patient education tools (SSI Prevention Sheet).
   Provide education about hand hygiene.
   Document receipt and understanding of the material.

2. Smoking Cessation (Office setting)
   Encourage Smoking Cessation for at least 30 days.

3. Screen for Infections
   Screen for infections during preadmission testing – refer for treatment.
   Document history of MDRO (multi-drug resistant organism).

4. Nutrition/Pre-Op Diet
   Instruct patients to consume a clear high-carb drink 2 hours prior to hospital arrival.
   NPO for solids 8 hours pre-operatively and 2 hours pre-operatively for clear liquids.

5. Pre-Op Skin Prep
   Require bathing or showering night before and morning of surgery.

6. Mechanical Bowel Prep

Preoperative
1. Education
   Verify receipt of patient education tools and understanding of the material.
   If education not completed or not understood, provide education regarding SSI Prevention and hand hygiene.

2. Nutrition/Pre-Op Diet
   Confirm curtailed fast per pre-testing instructions.
   Verify that patient consumed a clear high-carb drink two hours prior to hospital arrival.
   Give additional clear high-carb drink if surgery is delayed significantly.

3. Glucose Control
   Initiate Highland Hospital Clinical Practice Guideline -- Perioperative Glucose Control Guidelines.

4. Temperature
   Bair Huggers applied to maintain temperature of ≥ 36°C.
   Warm IV fluids used for pre-op boluses.
   Initiate Policy 8.18 Maintaining Normothermia in the Surgical Patient.

Guidelines are intended to be flexible. They serve as reference points or recommendations, not rigid criteria. Guidelines should be followed in most cases, but there is an understanding that, depending on the patient, the setting, the circumstances, or other factors, guidelines can and should be tailored to fit individual needs.
**Intraoperative**

1. **Hair Removal**
   Hair removal (only if hair will interfere with the operation) with clippers, outside the OR if at all possible.

2. **Antibiotics**
   - Prescribe appropriate antibiotic. Refer to Highland Hospital Clinical Practice Guideline – Prophylactic Antibiotics for Surgery.
   - Dose prophylactic antibiotic by weight.
   - Administer antibiotic within 1 hour prior to incision (2 hours for vancomycin or fluoroquinolones).
   - Single dose prophylactic antibiotic.
   - Redose prophylactic antibiotic based on duration of operation.

3. **Skin Prep**
   - Use standardized antiseptic agent for skin prep: **alcohol-containing** (Chloraprep, Duraprep) unless contraindicated (infants, mucous membranes, ear procedures, open wound).
   - **When alcohol-based skin prep is contraindicated,** use Chlorhexidine or Povidone Iodine antiseptic agent for skin prep. Regardless of antiseptic agent used, it must be allowed to dry completely. Alcohol prep would be contraindicated for use for during emergent cases with no drying time.

4. **Hand Hygiene & Asepsis**
   - Refer to Highland Hospital Policy 10.12: Surgical/Procedural Attire.
   - Ensure double gloving/sterile gloves for all scrubbed surgical team members.

5. **Temperature**
   - Maintain intra-operative temperature of \( \geq 35.5 \degree C \).
   - Use Bair Hugger.
   - Administer warm IV fluids.

6. **Drains**
   - If drainage is indicated, use a closed suction drain placed through a separate incision.
   - Remove drain as soon as possible.
   - Do not continue prophylactic antibiotics because drains are in place.

7. **Items intentionally left in patient**
   - Document items left behind in operative notes (stents, packing, drains, etc).
   - Document plan for removal if item is temporary.

8. **Surgical Technique**
   - Use wound protectors as appropriate.
   - Change gloves prior to closing.
   - Use clean instruments (Colorectal Closing Set) for closing of the wound.

**PACU**

1. **Glucose Control**
   - Maintain glucose per Highland Hospital Clinical Practice Guideline – Perioperative Glucose Control Guidelines.

2. **Temperature**
   - Maintain post-operative temperature of \( \geq 35.5 \degree C \)

Guidelines are intended to be flexible. They serve as reference points or recommendations, not rigid criteria. Guidelines should be followed in most cases, but there is an understanding that, depending on the patient, the setting, the circumstances, or other factors, guidelines can and should be tailored to fit individual needs.
**Postoperative**

1. **Order Sets**
   Use standardized post-op physician order sets, when available.

2. **Dressing and Wound Care**
   Consult a wound ostomy nurse for complicated wound management, such as use of vacuum dressing.
   Use appropriate hand hygiene.

3. **Antibiotics**
   Discontinue prophylactic antimicrobial agent within 24 hours of surgery.

4. **Glucose Control**
   Initiative Inpatient Diabetes Management Protocol.
   Maintain glucose for non-diabetic patients, who were eligible for the Highland Hospital Clinical Practice Guideline – Perioperative Glucose Control Guidelines, at ≤ 180 mg/dl.

5. **Hand Hygiene**
   Provide education about hand hygiene.
   Provide hand sanitizing agents to patient.

6. **Education**
   At discharge, provide education on wound care and how to recognize the symptoms of infection.
   Emphasize importance of informing healthcare providers if these signs and symptoms develop.

7. **Removal of items intentionally left in patient**
   Remove all packing, drains, etc prior to discharge whenever possible.
   Include plan for removal of items intentionally left behind – before patient leaves hospital, schedule appointment with provider who will remove them.

8. **Post-op Follow Up**
   Follow-up phone call to patients within three days after discharge from the hospital.
   Follow-up appointment with provider. Schedule prior to discharge if possible.

9. **System/Process**
   Regularly audit compliance with measurable elements of SSI bundle and SSI Rates.

---

### References

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
</tr>
</thead>
</table>

Guidelines are intended to be flexible. They serve as reference points or recommendations, not rigid criteria. Guidelines should be followed in most cases, but there is an understanding that, depending on the patient, the setting, the circumstances, or other factors, guidelines can and should be tailored to fit individual needs.


Approved:

W6 CSQC: 6/9/14
Peri-op CSQC: 8/6/14
Clinical Council: 8/14
Peri-op CSQC: 4/16
Clinical Council: 4/16

Guidelines are intended to be flexible. They serve as reference points or recommendations, not rigid criteria. Guidelines should be followed in most cases, but there is an understanding that, depending on the patient, the setting, the circumstances, or other factors, guidelines can and should be tailored to fit individual needs.