Custom Variables for PSQC Colorectal Bundle Pilot Project
Intent:

These variables were created to assist the PSQC Pilot Project working groups in their mission to improve outcomes for widely performed surgical procedures in the pediatric population. This operation manual will encompass the colorectal bundle pilot project. This project’s objective is to substantially reduce the incidence of SSIs post operatively for our pediatric patients undergoing colorectal procedures with an anastomosis and abdominal closure through the use of a standard procedure checklist.

Cohort Definition:

All pediatric patients undergoing an intestinal procedure with an anastomosis. The following list of CPT codes are eligible:

- 44140 Colectomy, partial; with anastomosis
- 44145 Colectomy, partial; with coloproctostomy (low pelvic anastomosis)
- 44146 Colectomy, partial; with coloproctostomy (low pelvic anastomosis), with colostomy
- 44147 Colectomy, partial; abdominal and transanal approach
- 44160 Colectomy, partial; with removal of terminal ileum with ileocolostomy
- 44205 Laparoscopy, surgical; colectomy, partial, with removal of terminal ileum with ileocolostomy
- 44207 Laparoscopy, surgical; colectomy, partial, with anastomosis, with coloproctostomy (low pelvic anastomosis)
- 44208 Laparoscopy, surgical; colectomy, partial, with anastomosis, with coloproctostomy (low pelvic anastomosis) with colostomy
- 44604 Suture repair large intestine, without colostomy
- 44626 Closure of enterostomy, large or small intestine; with resection and colorectal anastomosis (eg, closure of Hartmann type procedure)
- 45111 Proctectomy; partial resection of rectum, transabdominal approach
- 45402 Laparoscopic surgical proctopexy with sigmoid resection for prolapse
- 45550 Open proctopexy for prolapse w- sigmoid colon resection

The following list of CPT codes are eligible for inclusion if the procedure includes an intra-abdominal colorectal anastomosis (or repair):

- 44143 Partial removal of colon
- 44144 Partial removal of colon
- 44150 Colectomy, total, abdominal, without proctectomy; with ileostomy or ileoproctostomy
- 44227 Laparoscopy, surgical, closure of enterostomy, large or small intestine, with resection and anastomosis
- 44615 Intestinal stricturoplasty (enterotomy and enterorrhaphy) with or without dilation, for intestinal obstruction
Colorectal Bundle to Reduce SSI

- 44620  Closure of enterostomy, large or small intestine;
- 44625  Closure of enterostomy, large or small intestine; with resection and anastomosis other than colorectal
- 44640  Closure of intestinal cutaneous fistula
- 44660  Closure of enterovesicular fistula, without intestinal resection
- 45114  Proctectomy, partial, with anastomosis; abdominal and transsacral approach
- 45800  Closure of rectovesicular fistula

Notes:

If you are unsure if a procedure should be included, please include in report with a notation
Checklist

Please use the below checklist as you create any templated notes in your local EMR.

**COLON BUNDLE PROTOCOL CHECKLIST**

**PROCEDURES TO INCLUDE:** All colorectal procedures WITH anastomosis and abdominal closure

**Preoperative**

- Bowel prep (Optional)
- (Optional) Chlorhexidine (SAGE) bath/wipes
- Umbilical cleansing (alcohol cleaning of umbilicus prior to skin prep)
- Preoperative antibiotic given within 1 hour of incision

**Intraoperative (Document in operative report)**

- Anastomotic leak test
- Dedicated closure tray and drapes prior to closure *ok to use new sterile towels instead of new drapes
- Glove change prior to closure
- (Optional) Placement of subcutaneous drain in grossly contaminated cases
- Drain can be: vessel loop, penrose, umbilical tape, or other wicking object
- Maintenace of normothermia (< 36°C or > 38 °C for less than 30 minutes)

**Postoperative**

- Perioperative antibiotics discontinued at 24 hours (unless clinically indicated for longer duration)
- If present, occlusive dressing removed at 48 hours to examine wound
Colorectal Bundle to Reduce SSI

Colorectal Bundle Custom Variables

Display Name: Colo Bowel Preparation (Optional)

Field Name: colo_bowelprep

Intent of Variable: To identify if either a mechanical or bowel preparation was utilized for the patient prior to surgery in all colorectal procedures WITH anastomosis and abdominal closure. This variable is optional.

Definition: Bowel preparation is a way to ensure the bowels are empty before a surgical procedure on the bowels as a means to reduce the risk of infection after surgery.

Criteria: If the surgeon has made any entry into the templated checklist or other documentation regarding bowel preparation

Options:

- Yes
- No

Notes: For this variable, if the surgeon noted bowel prep of any type in the checklist note, ‘Yes’ should be selected. If the surgeon notes bowel prep of any kind in an operative notes, ‘Yes’ should be selected. If there is no mention of bowel prep in any operative note or in the checklist templated note, ‘No’ should ne selected. This variable is optional.
Display Name: **Colo Chlorhexidine (Sage) bath/wipes (optional)**

**Field Name:** Colo_CHGbath

**Intent of Variable:** To identify if a chlorhexidine ‘bath’ or ‘wipes’ were utilized for the patient prior to surgery in all colorectal procedures WITH anastomosis and abdominal closure. This variable is optional.

**Definition:** Chlorhexidine baths are a way to ensure the surgical field is as sterile as possible before a surgical procedure on the bowels as a means to reduce the risk of infection after surgery.

**Criteria:** If the surgeon has made any entry into the templated checklist or other documentation regarding chlorhexidine bath.

**Options:**
- Yes
- No

**Notes:** For this variable, if the surgeon noted chlorhexidine bath of any type in the checklist note, ‘Yes’ should be selected. If the surgeon notes chlorhexidine bath of any type in an operative notes, ‘Yes’ should be selected. If there is no mention of chlorhexidine bath in any operative note or in the checklist templated note, ‘No’ should be selected. This variable is **optional**.
**Display Name:** Colo Umbilical Cleansing (alcohol cleaning of umbilicus prior to skin prep)

**Field Name:** colo_umbilicusprep

**Intent of Variable:** To identify if umbilical cleansing was conducted for the patient prior to surgery in all colorectal procedures WITH anastomosis and abdominal closure.

**Definition:** Umbilical cleansing is a way to ensure the surgical field is as sterile as possible before a surgical procedure on the bowels as a means to reduce the risk of infection after surgery.

**Criteria:** Surgeon has made any entry into the templated checklist or other documentation regarding Umbilical cleansing.

**Options:**
- Yes
- No

**Notes:** For this variable, if the surgeon noted Umbilical cleansing of any type in the checklist note, ‘Yes’ should be selected. If the surgeon notes umbilical cleaning of any type in an operative notes, ‘Yes’ should be selected. If there is no mention of umbilical cleaning in any operative note or in the checklist templated note, ‘No’ should be selected.
Display Name: Colo Preoperative antibiotic given within 1 hour prior to incision

Field Name: colo_preopabx

Intent of Variable: To identify if an antibiotic was administered within one hour of incision in all colorectal procedures WITH anastomosis and abdominal closure.

Definition: Pre-incision administration of antibiotic within one hour of surgery start is standard of care. It is a way to reduce the risk of infection after surgery. This includes gram negative and anaerobic coverage.

Criteria: Surgeon has made any entry into the templated checklist or other documentation regarding antibiotic administration.

Options:
- Yes
- No

Notes: For this variable, if the surgeon noted antibiotics were administered within one hour before surgery in the checklist note, ‘Yes’ should be selected. If preoperative antibiotics and timing are noted in some other documentation besides the templated checklist, ‘Yes’ should be selected. If not noted in the checklist or other documentation, ‘No’ should be selected
Display Name: **Colo Anastomotic leak test (intraoperative)**

Field Name: **colo_leaktest**

Intent of Variable: To identify if an anastomotic leak test was performed as part of the surgical procedure prior to closure

Definition: The intra-operative air leak test (ALT) is a common intraoperative test used to identify mechanically insufficient anastomosis

Criteria: Surgeon has made any entry into the templated checklist or other documentation indicating an anastomotic leak test was performed.

Options:

- Yes
- No

Notes: Some examples of leak tests are, 1) after the anastomosis is made, some will immerse it under water and insufflate the lumen of the bowel with air, to see if air bubbles leak or 2) after the anastomosis is done, some will milk bowel contents across the anastomosis to see if it’s open and no bowel contents are leaking.

If surgeon has indicated on the templated note that an anastomotic leak test was performed, ‘Yes’ should be selected. If surgeon has indicated in operative notes that an anastomotic leak test was performed, ‘Yes’ should be selected. If not noted, ‘No’ should be selected.
Display Name: Colo Glove change prior to closure

Field Name: colo_glovechg

Intent of Variable: To identify if the surgeon has donned a fresh pair of gloves prior to skin closure

Definition: Surgeon has removed and discarded gloves used during surgical procedure and donned a new sterile pair prior to closing the skin

Criteria: Surgeon has made any entry into the templated checklist or other documentation indicating a glove change was performed prior to skin closure.

Options:

- Yes
- No

Notes: If surgeon has indicated on checklist a glove change was performed, ‘Yes’ should be selected. If surgeon has indicated in operative notes that a glove change was performed, ‘Yes’ should be selected. If not noted, ‘No’ should be selected
Display Name: Colo Dedicated closure tray (instrument change and new drapes prior to closure)

Field Name: colo_closuretray

Intent of Variable: Use of dedicated non-contaminated closing set instruments after all the contaminated instruments have been removed and the working areas re-draped with fresh, sterile towels, prior to skin closure reduces the risk of cross contamination and surgical site infections post surgery

Definition: A new closure tray with sterile instruments and new drapes or towels provided after glove change and before closure

Criteria: Surgeon has made any entry into the templated checklist or other documentation regarding change of instrument tray.

Options:

- Yes
- No

Notes: For this variable, if the surgeon noted a new tray was provided prior to closure, in the checklist note, ‘Yes’ should be selected. If the surgeon noted a new tray was provided prior to closure, in the operative notes ‘Yes’ should be selected. If not noted, ‘No’ should be selected
Display Name: Colo Placement of subcutaneous drain (vessel loop, Penrose, umbilical tape, or other wicking object) in grossly contaminated cases (optional)

Field Name: colo_subqdrain

Intent of Variable: Placing a drain in grossly contaminated areas may reduce the incidence of surgical site infections

Definition: A subcutaneous drain is placed. Drain can be: vessel loop, penrose, umbilical tape, or other wicking object

Criteria: Surgeon has made any entry into the templated checklist or other documentation regarding placement of a subcutaneous drain.

Options:
- Yes
- No

Notes: For this variable, if the surgeon noted a subcutaneous drain was placed in the checklist note, ‘Yes’ should be selected. If the surgeon noted a subcutaneous drain was placed in the operative notes, ‘Yes’ should be selected. If not noted, ‘No’ should be selected. This variable is optional.
Display Name: **Colo Maintenance of normothermia (< 36°C or > 38 °C for less than 30 minutes)**

Field Name: `colo_normothermia`

**Intent of Variable:** Maintaining a stable body temperature enables adequate immune functioning and perfusion to surgical site tissue, reducing the risk of surgical site infection

**Definition:** Patient’s body temperature during procedure is noted in anesthesiology charting. If patient’s temperature falls outside the defined range for greater than 30 minutes, normothermia has not been achieved

**Criteria:** Surgeon has made any entry into the templated checklist or other documentation regarding discussion of patient’s body temperature.

**Options:**
- Yes
- No

**Notes:** For this variable, if the surgeon noted normothermia was maintained in the checklist note, ‘Yes’ should be selected. If the surgeon documented normothermia in other notes, ‘Yes’ should be selected. If not noted, ‘No’ should be selected.
Variable Name: **Colo Perioperative antibiotics discontinued at 24 hours following Procedure/Surgery Finish.**

Field Name: `colo_periopabx`

**Intent of Variable:** Discontinuing antibiotics at the appropriate time decreases the incidence of resistance.

**Definition:** Antibiotics given in the perioperative stage, should be discontinued within 24 hours of their start

**Criteria:** Surgeon has made any entry into the templated checklist or other documentation indicating all perioperative antibiotics have been discontinued if appropriate.

**Options:**
- Yes
- No

**Notes:** For this variable, if the surgeon noted perioperative antibiotics discontinued in the checklist note, ‘Yes’ should be selected. If the surgeon noted perioperative antibiotics discontinued in other documentation, ‘Yes’ should be selected. If not noted, ‘No’ should be selected
Display Name: Colo If present, occlusive dressing removed at 48 hours to examine wound

Field Name: colo_occlusivedsg

Intent of Variable: If an occlusive dressing is present, removing the dressing after 48 hours to examine the incision to ascertain level of healing.

Definition: An occlusive dressing is any dressing which covers the wound

Criteria: Surgeon has made any entry into the templated checklist or other documentation indicating the dressing has been removed and the incision assessed

Options:

- Yes
- No

Notes: For this variable, if the surgeon noted dressing was removed and incision assessed in the checklist note, ‘Yes’ should be selected. If the surgeon noted dressing was removed and incision assessed in other documentation, ‘Yes’ should be selected. If not noted, ‘No’ should be selected