1) DVT prophylaxis: Heparin 5000 units **Subcutaneously** to be given preoperatively (1 hour after epidural placement in the OR)
   a) Then Heparin 5,000 units SQ BID (if epidural), TID (if no epidural) until discharge. Do not give heparin in abdominal wall near wound.
   b) Can switch to Lovenox 40mg SQ daily POD #1 until discharge.
2) Chlorhexidine scrub night before or morning of surgery, and Chloraprep wound POD #2 when dressing is removed.
3) OR protocol to reduce SSI:
   a) **Preoperative antibiotic**—(look for antibiotic order from the surgical team):
      i) **These can be given in the OR as they have a short infusion time of 3-5 min:**
         1. Cefoxitin
      ii) **These should be administered preoperatively in the PTU when anesthesiologist is preparing the patient, to guarantee the infusion is completed prior to incision:**
         1. Unasyn—infuses over 60 minutes
         2. Flagyl—infuses over 30-60 minutes
         3. Ciprofloxacin—infuses over 60 minutes
         4. Gentamicin—infuses over 20-30 minutes
         5. Clindamycin—infuses over 30 minutes
         6. Vancomycin—infuses over 60 minutes
   iii) For the inpatients on other antibiotics, the patient’s floor nurse may need to start the infusions on call to the OR, since the OR pharmacy needs time to mix the bag of antibiotics, which will delay being able to head back to the OR once the patient arrives at the front desk hallway. These antibiotics include the following:
         1. Ertapenem—infuses over 30 minutes
         2. Tigecycline—infuses over 30-60 minutes
         3. Linezolid—infuses over 30-120 minutes, depending on dose
   b) **Separate instrument tray** (keep clean instruments separate) for closing. Isolate contaminated field when bowel lumen open, keep suction, bovie, mayo stand clean or replace. Change gloves (and gown) after creating anastomosis, when field is clean again.
   c) **Standardized team of scrub techs, circulators, and anesthesiologists.**
   d) **Standardized anesthesia protocol**
      i) Avoidance of fluid overload—discussion between surgeon and anesthesiologist at beginning of case regarding fluid management goals (i.e. Has patient had bowel prep? What type of bowel prep? Quantity per patient report? Etc.) → Document on PTU intake form.
         1. Selective use of bowel prep, at surgeon’s discretion, to minimize preoperative hypovolemia
         2. Restrictive intraoperative fluid management for ASA 1 and 2 patients, with goal total IV fluids 2000ml +/- 500ml for a 4-hr surgery
         3. Goal-directed intraoperative fluid management for ASA 3 and 4 patients, with noninvasive pulse-pressure variation measurements (FloTrac) to guide fluid therapy (colloid boluses)
         4. Colloid administration after 2500ml crystalloid has been given
      ii) Maintain normothermia
         1. Monitor core body temperature (esophageal, nasopharyngeal, rectal, or bladder temperature probe)
(2) Warm all IV fluids being administered with a fluid warmer, preferably prior to induction of general anesthesia.

(3) Use forced-air blankets throughout the case—upper Bair-hugger. Start Bair-hugger warming in preop/PTU and continue use in PACU. Consider ETT humidifier and blankets on patient’s head.

(4) OR room temperature to stay between 68-70 degrees F. Work with engineering to improve OR temperatures in some rooms (ex. OR 12 at Reagan—when engineering is called to change the room temperature, the change takes an hour or two to manifest in the room, then another hour to reflect in patient improvement).

(5) All surgical patients undergoing general anesthesia lasting an hour or longer must have documented a core temperature of 36 degrees C or higher during the anesthetic, or documented some attempt at intraoperative warming (such as forced air blanket or fluid warmer), as part of our new SCIP measures implemented a year or two ago.

iii) Avoidance of nasogastric tube placement when possible.

iv) Short-acting anesthetic agents
   (1) Minimize benzodiazepine premedication when possible.
   (2) Short-acting halogenated agents.
   (3) Short-acting narcotics.

v) Multimodal analgesia intraoperatively, to minimize narcotic use
   (1) Epidural analgesia recommended for every patient, in absence of contraindications, for both laparoscopic and open procedures. Thoracic epidural preferred over lumbar; discuss level with surgeon.
   (a) Pressor use intraoperatively after hypovolemia has been ruled out (for example by TTE)
   (2) IV acetaminophen use routinely during last hour of surgery.
   (3) IV ibuprofen or ketorolac use near end of surgery, after checking with surgeon regarding hemostasis.
   (4) Local anesthetic injection at incision site by surgeons.

vi) In diabetic patients, perioperative glycemic control
   (1) Identify high-risk patients (diabetics) preoperatively
   (2) Fingerstick blood glucose check (Accu check) hourly intraoperatively, or arterial blood sample hourly if patient has an arterial line
   (3) Regular insulin IV administration at anesthesiologist’s discretion to maintain goal blood glucose 120-150

4) No stress gastritis prophylaxis unless specific indication.

5) Oral analgesia regimen to start when patient is taking regular diet:
   a) Celebrex 200 mg daily or Ibuprofen 400 mg q6 hrs AND Tylenol 650 mg PO q6 hrs ATC (If using Ibuprofen, alternate with Tylenol q6 hrs so patient takes one or the other every 3 hours).
      Contraindications to Celebrex: Allergy to sulfonamide/aspirin or other NSAIDS, renal insufficiency, IBD, anticoagulation (please specify), bleeding diathesis.
   b) Oxycodone 5-10-15 mg PO q3-4 hrs PRN breakthrough pain. (Other options: PO Dilaudid 2-4-6 mg PO q3-4 hrs PRN breakthrough pain).
   c) Colace 100 mg PO q8 hrs with pain medication (hold if patient is diverted (ileostomy) or doesn’t have a colon).
6) Feeding regimen:
   a) POD #0: Ice chips < 30 cc/hr
   b) POD #1: Water < 60 cc/hr; Decrease IVF
   c) POD #2: Clears/Ensure; Decrease IVF
   d) POD #3: Regular diet (with instruction—small meals, chewing food well); Low residue diet for ileostomy patients; HL IVF.
7) Remove Foley POD 2, if possible.
8) Ileostomy instruction sheet for patient
   a) Contact physician if ostomy output > 1000 cc/24 hrs.
   b) For ostomy output over 1000 cc/24 hrs, start Imodium 1 to 2 tabs PO 30 min before each meal and QHS (maximum 8 tabs/24 hrs). If output continues to be high, add Lomotil 1 to 2 tabs in between Imodium doses (maximum 8 tabs/24 hrs). If output still high, can add Metamucil 1-2 gm PO TID.
9) Patients will have a default 1-week follow-up appointment scheduled before discharge unless otherwise specified.
10) Patients will ideally be placed on 8E or 8W at RR.
11) Education booklet for patients to be given out prior to the operation at the preoperative appointment:
    Information regarding the hospitalization, pain medication dosing instructions, ostomy function, signs and symptoms of ileus, obstruction, dehydration, etc.
12) All of the above including education booklet needs to be taught in a ‘teach-back fashion’ and properly documented.
13) Discharge instructions may be recorded as needed.
14) Medication reconciliation.
15) RN to complete pathway checklists.
   a) PTU: turn in completed checklists to Genevieve Ubas.
   b) OR
      i) Post checklist on whiteboard
      ii) Turn in completed checklists to Genevieve Ubas
   c) Floor
      i) Post care pathway checklist in pt’s room. Encourage pt to actively participate in completing the form.
      ii) Turn in completed checklists to Charge or Malou.