Enhanced Recovery After Surgery
Guide for Anesthesiologists in the OR

Eligible patients
All elective colorectal patients, either open or laparoscopic (hemicolecotmy, subtotal colectomy, LAR, APR, etc.)

Pain Management
- **Goal:** avoid long-acting opiate-based anesthesia
- **Premedication:** acetaminophen 1 gm and gabapentin 300
  - NSAIDs only if no anastomosis (i.e., planned ileostomy)
- **Open procedures:**
  - Thoracic Epidural Analgesia (TEA) at ~T8-9
  - Ensure functioning block before induction of GA
- **Laparoscopic procedures:**
  - **lidocaine infusion** 1.5 mg/kg bolus at induction followed by infusion of 1.5 – 2 mg/kg/hr. Discontinue at skin closure.
  - IV-PCA or oral opioids postop
  - **TEA for opiate tolerant patients** (please check medication list) or those with a high likelihood of **conversion to open** (ask surgeon)

Fluid Management
- **Minimization of crystalloid administration**
  - Maintenance infusion RL 1-2 mL/kg/hr
  - Urine output of 0.3-0.5 mL/kg/hr acceptable
○ Infusion pump for administration of crystalloid to avoid runaway IV infusions, especially during induction
○ Injection port for drugs located as close to the patient as possible (no intervening extension tubing)
○ Colloids for replacement of significant blood loss
• **Goal-directed fluid therapy**
  ○ Masimo Radical 7 monitor for low-risk patients
  ○ Esophageal doppler monitor for high-risk patients

**Avoidance of Hypothermia**
• Fluid warmer, temperature monitoring, hot air blanket, HME
  ○ Please record starting and finishing temperatures and location of temperature probe

**PLEASE CHART:** Anesthesia-related items to be audited and correlated with LOS, complication rate:
• **History:** PONV/motion sickness, chronic opioid use, ASA class
• **Premedication:** gabapentin, celecoxib/other NSAID, VTE prophylaxis (enoxaparin/dalteparin/unfractionated heparin)
• **Antibiotics:** drug and time of administration
• **Total intraop opioid dose:** fentanyl, hydromorphone, morphine, remifentanil (estimate dose and record on chart)
• **Temperature:** record at induction, procedure end, site of probe
• **Hypothermia:** IV fluid warmer, warming blanket (location)
• **Epidural:** bolus and / or infusion
• **Lidocaine infusion:** time of discontinuation
• **Intraop fluids:** total volume crystalloid (specify RL or NS), colloids (albumin, Voluven, Volulyte), blood products
• **Fluid balance:** estimated blood loss, urine output
• **Temperature in PACU**
• **Cardiac output monitor use:** Masimo, CardioQ