



Enhanced Recovery After Surgery Guide for Anesthesiologists in the OR

Eligible patients

All elective colorectal patients, either open or laparoscopic (hemicolectomy, 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, remifentanyl (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