

Enhanced Recovery After Surgery (ERAS) - For Providers

Preoperative evaluation and optimization

Cardiac and Medical Risk Assessment

Consider medical and/or cardiac evaluation for:

- Age >50years old
- Chronic diseases such as asthma, hypertension that are not well controlled, diabetes with HgA1C >7
- Cannot walk up a flight of stairs or a hill; or walk briskly 2 blocks on level ground (i.e. Metabolic equivalent (METs) of <4)
- 2 or more risk factors from table below (Equivalent to Revised Cardiac Risk Index (RCRI) of >1% of having a cardiac event post surgery)

High risk surgery (ie open abdominal, vascular, thoracic)	History of cerebrovascular disease
History of ischemic heart disease*	Diabetes mellitus requiring insulin
History of heart failure	Serum creatinine >2.0 mg/dL

*myocardial infarction, positive exercise test, chest pain considered to be secondary to myocardial ischemia, use of nitrate therapy, ECG with pathological Q waves

- Very high-risk patients: recent MI or unstable angina, decompensated heart failure, high-grade arrhythmias, aortic stenosis and other hemodynamically important valvular diseases

Laboratory Evaluation

Selective testing based on clinical indication is favored over routine testing

- Hemoglobin/hematocrit- age 65+ years undergoing major surgery
 - younger age undergoing major surgery with high expected EBL
- Creatinine- age 50+ undergoing intermediate or high risk surgery
 - if nephrotoxic medications will be used (i.e gentamicin, vancomycin)
 - if there is a risk of hypotension
- Other testing based on risk factors and clinical indication- EKG, chest X-ray, pulmonary function test, liver function test, blood glucose, electrolytes, coagulation panel

Bowel preparation

Mechanical bowel preparation has not been shown to improve intraoperative visualization or bowel handling. While bowel preparation does not appear to benefit patients, it may lead to dehydration, distress and fatigue. Bowel preparation may be used at the discretion of the surgical team.

- PEG-electrolytes solution (GoLytely) 1 gallon as directed
- Magnesium citrate 1 bottle as directed
- Fleets enema 1 or 2 doses as directed

Fasting Guidelines

Preoperative fasting guidelines as adopted by the American Society for Anesthesiologists in 1999 and reaffirmed 2017. Many surgical societies *encourage* high carbohydrate clear liquids until 2 hours prior to surgery. But check with anesthesiology service as provider and hospital and recommendations may vary.

- 8 hours meat, fried, fatty, solid food
- 2 hours clear liquids - only if cleared by anesthesiology

Preoperative Analgesia

May be used in combination with each other to decrease postoperative pain and need for opioids

- Gabapentin 300-400mg PO x1 in Pre-Op
- Tylenol 975mg-1000mg PO x1 in Pre-Op
- Celecoxib 400mg PO x1 in Pre-Op

Prevention of Postoperative Nausea and Vomiting (PONV)

Nausea/Vomiting Risk assessment

<p>Risk Factors: Female gender Nonsmoker History of motion sickness or previous PONV Expected postoperative opioid use</p>	<p>0 risk factors = 10% risk of PONV 1 risk factor = 20% risk of PONV 2 risk factors = 40% risk of PONV 3 risk factors = 60% risk of PONV 4 risk factors = 80% risk of PONV</p>
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- Best prophylaxis incorporates a multimodal approach:
 - Scopolamine patch applied 2 hours prior to induction of anesthesia (consider continuing postoperatively)
 - Dexamethasone 4mg IV after induction
 - Ondansetron 4mg IV at end of surgery*

- Discuss with anesthesiologist the anesthetic technique (ie. regional vs general, transversus abdominis plane block, propofol instead of volatile anesthetics)