Enhanced Recovery Thoracic Surgery

Anesthesia Pathway

Preoperative
- Patient Education & Expectations for Hospital
- Medical Risk Consultation: Cardiac Clearance and PFTs for All Patients
- Surgery Wellness Referral for >65 years old or concern for diminished functional status
- Smoking Cessation: Goal 4 weeks prior to Surgery
- Nutrition: Referral to Dietician for all esophagectomy patients

Intraoperative
- Fasting:
  - No solid food after midnight
  - Clear liquid diet until 2 hours prior to arrival to hospital

- Postoperative Nausea/Vomiting Prevention:
  - Zofran 4mg at end of the case for all patients
  - If young female or history of PONV, then use dexamethasone 4-8mg as well as scopolamine transdermal patch. If >75 years old, do not use scopolamine.

- Lines:
  - Arterial Line: Indicated for Esophagectomy and Lobectomy. To be removed at end of case if admitted to the ward.
  - Central Line: Placed at discretion of anesthesia provider. To be removed at end of case if admitted to the ward.

- Surgical Site Infection Prophylaxis:
  - Ancef 2g (or 3g if >120kg) every 4 hours
  - Discontinue following closure of wound

- Venous Thromboembolism Prophylaxis:
  - SQ Heparin 5000units given prior to incision and re-dosed every 8 hours

- Normothermia
• Lung Protective Ventilation:
  ▪ 2 Lung Tidal Volume 7ml/kg ideal body weight
  ▪ 1 Lung Tidal Volume 4-5ml/kg ideal body weight
  ▪ Respiratory Rate set to maintain PaCO2 40-50
  ▪ FiO2 100% until single lung ventilation, then decrease to goal <70% to maintain SpO2 >92-94%

• Goal Directed Fluid Management:
  ▪ Goal Euvolemic

• Pain Management:
  ▪ PCEA
    ○ To be used for esophagectomy and for open lung resection
    ○ To be used for patients with chronic pain
    ○ Level: T6/7 or T7/8
    ○ Dose: 0.125% Ropivicaine with 2mcg/ml Fentanyl
    ○ To be run throughout the case
  ▪ Tylenol:
    ○ PO 1g given in preop, then re-dosed every 6 hours
  ▪ NSAIDS:
    ○ To be used in all patients <75 years old and normal renal function.
    ○ IV Toradol 15mg q6h to be started at the end of the case
    ○ Transition to PO Diclofenac 50mg BID when patient taking PO.
  ▪ Gabapentin:
    ○ 600mg given in preop, then continued on the floor 300mg BID

Postoperative – Esophagectomy

POD0
• Admit to 8S or 10 CVT as Stepdown
• Ambulation Required Day of Surgery

POD1
• Ambulate QID

POD2
• Remove NGT
• Start Sips/Chips

POD3
• Advance to Clear Liquid Diet
• Remove Chest Tube
• Wean PCEA

POD4
• Advance to FLD
- Remove PCEA

**POD5**
- Discharge Home

**Postoperative – Open Lobectomy/Wedge Resection**

**POD0**
- Admit to 8S or 10 CVT
- Ambulation Required Day of Surgery
- Sips/Chips

**POD1**
- Advance diet as tolerated
- Ambulation QID
- Wean PCEA in PM

**POD2**
- Remove Chest Tube
- Remove PCEA

**POD3**
- Discharge Home

**Postoperative – Minimally Invasive Lobectomy/Wedge Resection**

**POD0**
- Admit to 8S or 10 CVT
- Ambulation Required Day of Surgery
- Sips/Chips

**POD1**
- Ambulation QID
- Advance diet as tolerated
- Remove Chest Tube/Discharge Home if Wedge Resection

**POD2**
- Remove Chest Tube/Discharge Home if Lobectomy