LPCH Perioperative Pathway for Idiopathic Scoliosis Patients
Undergoing Posterior Spinal Fusion Surgery

Pre-operative

- **Pregabalin** (max dose 300 mg):
  - 2 mg/kg PO (suspension or capsules)
  - Dose rounded up to nearest 25 mg

- **Celecoxib**:
  - If 10-24.9 kg: Celecoxib 50 mg PO
  - If 25-49.9 kg: Celecoxib 100 mg PO
  - If ≥ 50 kg: Celecoxib 200 mg PO

- Consider IV or oral **midazolam** for premedication

- **Team Communication**: Number of levels, neuromonitoring plan (MEP, EMG, SSEP), anticipated blood loss, use of cell saver, blood availability, is this a “high risk” case, postoperative disposition?

Intraoperative

- Secure airway, cover eyes, place bite block, temperature probe, forced-air warming blankets
- **Consider** using processed EEG to monitor anesthetic depth or ask neuromonitoring team to provide input on anesthetic depth
- Antibiotic prophylaxis as ordered by surgeon (verify before administering)
- Unless a contraindication exists, preoperative antibiotic prophylaxis consists of:
  - **Cefazolin** (30 mg/kg IV q 3hrs), and
  - **Gentamicin** (1 mo-17 yrs: 2.5 mg/kg IV, no re-dose; ≥18 yrs: 5 mg/kg IV, no re-dose)

- **Aminocaproic acid**: 100 mg/kg IV bolus over 15 min (max 5 g), then 10 mg/kg/hr IV
- **Line Placement**: usually 2 large bore IVs and arterial line. For high-risk pathway patients going to PICU, consider a central line.
- **Acetaminophen** 15 mg/kg IV at start of case and redose at 6 hours if still in OR

- **Intrathecal (IT) preservative-free Morphine 5 mcg/kg**
  - Use the 0.5 mg/mL concentration PF morphine vial, maximum dose 500 mcg
  - Consider administering pre-incision via spinal (especially if surgeon does not plan to expose low lumbar segments)
  - If not feasible, request that surgeon administer IT morphine as early as possible in the case
Scoliosis/Spinal Fusion

- Call to notify Acute Pain Service 650-724-6000 regarding patient, dose, and time of administration and document in chart

  - If contraindication to IT Morphine Exists
    - Administer long-acting opioid if appropriate

**Anesthetic Maintenance**

- Intravenous anesthetic maintenance:
  - **Propofol** (Suggested dose range 100-250 mcg/kg/min)
  - **Remifentanil** (Suggested dose range 0.05-0.25 mcg/kg/min)

- Use up to 0.5 MAC **isoflurane** to titrate MAP to desired level
- Check regular blood gases
- The surgeon may decide to administer **Liposomal Bupivacaine** to patients (typically ≥ 15 yrs old) near the end of the procedure
  - Consider the implications of local anesthetic administration and (potentially) reduced postoperative pain

**Transfusion Management**

- Calculate Estimated Blood Volume
- Calculate Allowable Blood loss
- Discuss indications for transfusion with your attending early in the case
- Have unit dose of PRBCs in the OR cooler
- Cell saver: Call anesthesia tech # 10246 to spin cells
- Transfuse when clinically indicated or when Hgb ≤ 7.0

**Incision Closure/Emergence**

- Check ABG 1 hour prior to transport
- If EBL ≥ 1 blood volume, check coagulation labs
- **Ondansetron** 0.1 mg/kg IV (up to 4 mg) during incision closure

**Transport to PICU** (if applicable)

- Bring 1 unit PRBCs to PICU in cooler
- If vasoactive medications used to support blood pressure within 1 hour of transport, notify PICU attending/fellow (#78850) and bring infusion (even if infusion discontinued)

**References:**


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