Evidence Based Practice

Associated Power Plans:

Children's Mercy KANSAS CITY

Preoperative Care

Inclusion criteria:

- Amputation of a major extremity
- **Exclusion criteria:**
- Finger/toe amputation

Pre-Operative Medications

- Gabapentin* 5 mg/kg PO (max dose 300 mg)
- Celecoxib 50 mg PO (10 25 kg), 100 mg PO (> 25 kg)
- Vitamin C 500 mg PO
- **Dextromethorphan** (long acting) 15 mg PO (ages 4 5 years), 30 mg PO (ages 6 11 years), 30 60 mg PO (ages 12 years and up)

*Pregabalin 1 mg/kg (Max dose 75 mg) as alternative if pt has had side effects from gabapentin

Pre-operative Consults & Goals

Consults

- Pain Psychology
- Child Life

Pain education

Provide reassurance, discuss expectations, planned analgesic regimen, and anticipated clinical course

Multimodal Analgesia

- Acetaminophen 10 -15 mg/kg IV at beginning of case and q6 hrs
- Ketamine infusion 5 mcg/kg/min vs intermittent dosing
- **Methadone** 0.15 mg/kg IV (max dose 15 mg) at beginning of case
- Dexmedetomidine infusion
 0.5 mcg/kg/hr vs intermittent dosing
- Calcitonin 200 mcg IM or subQ at beginning of case
- Fentanyl PRN
- Hydromorphone PRN
- * Ketorolac **SHOULD NOT** be given intra-operatively*

Regional Anesthesia

Intraoperative Care

Please Consult APS Physician

Discuss regional anesthesia with surgeon at huddle

- Peripheral nerve catheter preferable over single-shot nerve block
- For lower extremity amputations, consider epidural placement as an equivalent alternative to nerve catheter

Nerve Block Considerations

- For fascial plane block, consider lower concentrations of local anesthetic with high volume
- Be mindful of toxic local anesthetic dosages when multiple blocks are performed

Adjuncts

 Consider clonidine or dexmedetomidine and preservative-free dexamethasone to prolong block

> Postoperative Care: Inpatient to Discharge

Main Goals of Inpatient of Care

Intraoperative Medications

• Antibiotics:

- Discuss at huddle
- Administer before incision

• Antiemetics:

- Dexamethasone 0.1 mg/kg IV (max 8 mg)
- Ondansetron 0.15 mg/kg IV (max 4 mg)

Bowel Regimen & Diet

- · Daily bowel regimen
- · Avoidance of placing NG tube
- Advance diet on POD 0
- Antiemetics
 - Ondansetron PRN
 - Diphenhydramine PRN

Peripheral Nerve Catheters or Epidural likely to remain in place 5 - 7 days postoperatively



QR code for mobile view

Initial Postoperative Pain Management

- *APS to be consulted on *all* cases and write *all* pain orders*
- Calcitonin 200 mcg IM or subQ daily, max of 5 total doses (inclusive of intra-op dose)
- **Dextromethorphan** (long acting) 15 mg PO BID (ages 4 5 years), 30 mg PO BID (ages 6 11 years), 30 60 mg PO BID (ages 12 years and up)
- Vitamin C 500 mg PO daily
- Continue gabapentin 5 mg/kg PO TID or pregabalin 1 mg/kg PO BID
- Methadone 0.05 0.1 mg/kg/dose IV X 1 dose, given 8 -12 hrs after intra-op dose
 - Consider scheduling methadone if nerve catheter/epidural + non-opioid adjuncts are not providing adequate analgesia
- Oxycodone 0.1 mg/kg PO q4hrs PRN once tolerating clears
- Hydromorphone 5 10 mcg/kg or morphine 0.05 0.1 mg/kg IV q4 hrs PRN severe
- *Diazepam* 0.05 0.1 mg/kg q4 6 hrs PRN
 - Convert to PO when tolerating regular diet
- Acetaminophen 12.5 mg/kg IV (max 1000 mg) q6 hrs scheduled
 - Convert to PO when appropriate
- Celecoxib 50 mg PO (10 25 kg), 100 mg PO (> 25 kg) BID
- Consider ketamine infusion 0.1 0.3 mg/kg/hr
- Consider dexmedetomidine infusion 0.1 0.3 mcg/kg/min

Prior to discharge, ensure follow-up is in place with:Orthopedic surgeon, PT or OT, & Complex Pain Clinic

Consults

- *If poor pain trajectory, consider MPS consult
- PT or OT on POD 1
- Pain psychology
- continued involvement
- Child Life
 - · continued involvement

Can consider:

- Massage therapy
- Pet therapy

Abbreviations:

Last Updated: 2.18.2025

APS - Acute Pain Service MPS - Medical Pain Service OT - Occupational Therapy PT - Physical Therapy

Contact: EvidenceBasedPractice @cmh.edu

This clinical pathway is meant as a guide for physicians and healthcare providers. It does not establish a standard of care, and is not a substitute for medical judgment which should be applied based upon the individual circumstances and clinical condition of the patient. Printing of Clinical Pathways is not recommended as these documents are updated regularly . Copyright © The Children's Mercy Hospital 2024. All rights reserved.

Link to: synopsis and references