Complete Pain Pathway: Emergency Department

Clinical Practice Guideline (CPG)

Protocol Approved by: Division of Pediatric Emergency Medicine
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Pain Management in Patients Without Trauma or Injury
Emergency Department Clinical Practice Guideline (CPG)

Triage Patient

Trauma and/or Injury: Go to CPG for Patients with Trauma and/or Injury

Migraine Headache: Go to CPG for Patients with Migraine Headaches

Evaluate ABCs

Patient with Abdominal Pain (Possible Acute Appendicitis): Go to CPG for Appendicitis

Sickle Cell Patient with Pain: Go to CPG for Sickle Cell Patients with Pain

System Focused Physical Assessment
Vital Signs
Weight in Kg
and
Pain Medication Given Prior to ED?

Pain Assessment
Pain Rating Scale

Determine Need for Pain Medication

Pain Scale 1-3

Consider PO Medication
Tylenol
Ibuprofen
and/or
Non-Pharmacological Measures

Pain Scale 4-7

Consider PO Medication
Tylenol
Ibuprofen
Tylenol with Oxycodone*
Oxycodone*
and
Non-Pharmacological Measures

Pain Scale 8-10

*Contact PEM Attending / PEM Fellow

Consider IV Medication
Toradol
Morphine
Fentanyl
and
Non-Pharmacological Measures

Re-assessment Q 30 minutes if PO medication given
Repeat Vital Signs

Re-assessment Q 15 minutes if IV medication given
Repeat Vital Signs

Pain Improved or Resolved?

Disposition= Admission or Discharge
Pain Management in Patients with Trauma and/or Injury
Emergency Department Clinical Practice Guideline (CPG)

1. Evaluate ABCs
2. Triage Patient
   - System Focused Physical Assessment
   - Vital Signs
   - Weight in Kg
   - Pain Medication Given Prior to ED?

3. Pain Assessment
   - Determine Need for Pain Medication and/or Procedural Sedation
4. Diagnostics Imaging?
   - X-rays or CT Scan
5. Pain Scale
   - Pain Scale 1-3: Consider PO Medication
     - Tylenol
     - Ibuprofen
     - Non-Pharmacological Measures
   - Pain Scale 4-7: Consider PO Medication
     - Tylenol with Oxycodone*
     - Oxycodone*
   - Pain Scale 8-10: Consider IV Medication
     - Morphine*
     - Fentanyl*

6. Re-assessment Q 15 minutes if IV Meds given or Q 30 minutes if PO Meds given
7. Vital Signs / Pain Scale Rating

Procedure without Sedation
- Obtain consent (if required)
- Anesthesia as required:
  - topical or local
  - regional block
- Prepare patient
- Procedure completed

Procedural Sedation
- Obtain consents
- Order medications
- Resuscitation equipment present
- ED attending physician aware
- Pre-procedure time-out
- Procedure completed
- Patient monitored until baseline

Disposition = Admission or Discharge
# Emergency Department Pain Medications

## Non-Steroidal Anti-Inflammatory Medications

### Oral Medications

<table>
<thead>
<tr>
<th>Medication</th>
<th>Dosage</th>
<th>Max Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetaminophen</td>
<td>10-15 mg/kg PO every 4 hours</td>
<td>- Max Dose 4 grams/24 hours</td>
</tr>
<tr>
<td>Ibuprofen</td>
<td>10 mg/kg every PO 6-8 hours</td>
<td>- Max Dose 800 mg/dose or 3.2 grams/24 hours</td>
</tr>
<tr>
<td>Naproxen</td>
<td>5 mg/kg every PO 12 hours</td>
<td></td>
</tr>
</tbody>
</table>

### Parenteral Medications

<table>
<thead>
<tr>
<th>Medication</th>
<th>Dosage</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ketorolac</td>
<td>0.5 mg/kg IV single dose (Max dose 30 mg)</td>
<td>- Children 2-16 years of age only.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Should not be used in patients with abdominal pain and concern for acute appendicitis.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Should not be used in any patient that may go to the OR.</td>
</tr>
</tbody>
</table>
**Emergency Department Pain Medications**

## Narcotic Medications

### Oral Medications

<table>
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<tr>
<th>Medication</th>
<th>Dosage Information</th>
<th>Maximum Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Codeine (Acetaminophen) <em>Elixir, T#1,2,3,4</em></td>
<td>0.5-1 mg/kg PO every 4-6 hours</td>
<td>Max Dose 60 mg/dose</td>
</tr>
<tr>
<td>Hydrocodone (Acetaminophen) <em>Lortab Elixir, Lorcet, Vicodin</em></td>
<td>0.2 mg/kg PO every 4-6 hours</td>
<td>Not to exceed 6 doses per day.</td>
</tr>
<tr>
<td>Oxycodone <em>Roxicodone, Oxycontin</em></td>
<td>0.2 mg/kg PO every 4-6 hours</td>
<td>Max Dose 5 mg/dose</td>
</tr>
<tr>
<td>Oxycodone (Acetaminophen) <em>Tylox, Roxilox, Percocet</em></td>
<td>0.2 mg/kg PO every 4-6 hours</td>
<td>Max Dose 5 mg/dose</td>
</tr>
<tr>
<td>Hydromorphone <em>Dilaudid</em></td>
<td>0.06 mg/kg PO every 4-6 hours</td>
<td>Max Dose 4 mg/dose</td>
</tr>
</tbody>
</table>

**Doses of acetaminophen in combination opioids / NSAID preparations must be adjusted to the patient’s body weight.**

## Parenteral Medications

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<th>Maximum Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine</td>
<td>0.1-0.2 mg/kg IV every 2-4 hours</td>
<td>Max Dose 15 mg/dose</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>1-2 mcg/kg/dose IV every 0.5-1 hour</td>
<td>Children 18-36 months may require 2-3 mcg/kg/dose.</td>
</tr>
</tbody>
</table>
Common Emergency Department Procedures
(Potential Means of Pain Management for Procedure)

**Incision and Drainage**
Non-Pharmacological Measures
- EMLA
- Topical Ethyl Chloride Spray
- Local Infiltration with Lidocaine
- Procedural Sedation

**Laceration Repair**
Non-Pharmacological Measures
- Topical XAP
- Local Infiltration with Lidocaine
- Nerve/Digital Block with Lidocaine
- Procedural Sedation

**Lumbar Puncture**
Non-Pharmacological Measures
- EMLA
- Oral Sucrose for Infants
- Local Infiltration with Lidocaine
- Procedural Sedation

**Fracture Reduction**
Non-Pharmacological Measures
- Procedural Sedation
- Hematoma Block with Lidocaine