### Pain and Management Dosing Guide Includes:

- Stepwise Approach to Pain Management and Procedural Sedation
- Non-opioid Analgesics, Opioid Prescribing and Equianalgesic Chart, and Opioid Cross-Sensitivities
- Intranasal and Nebulized Medications
- Procedural Sedation and Analgesia (PSA) Medications
- Pain Management, Discharge and Patient Safety Considerations
- Nerve Blocks, Neuropathic and Muscle Relaxer Medications
- Ketamine Indications and Dosing
- Topical and Transdermal Medications
- Nonpharmacologic Interventions

Take a look at the dosing guide here!
**NERVE BLOCKS**

<table>
<thead>
<tr>
<th>Type of Block</th>
<th>General Distribution of Anesthesia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercostal Plexus Block</td>
<td>Shoulder, upper arm, elbow and forearm</td>
</tr>
<tr>
<td>Supraclavicular Plexus Block</td>
<td>Upper arm, elbow, wrist and hand</td>
</tr>
<tr>
<td>Infracavicular Plexus Block</td>
<td>Upper arm, elbow, wrist and hand</td>
</tr>
<tr>
<td>Axillary Plexus Block</td>
<td>Forearm, wrist and hand; Elbow if including musculocutaneous nerve</td>
</tr>
<tr>
<td>Median Nerve Block</td>
<td>Hand and Forearm</td>
</tr>
<tr>
<td>Radial Nerve Block</td>
<td>Hand and Forearm</td>
</tr>
<tr>
<td>Ulnar Nerve Block</td>
<td>Forearm and Hand</td>
</tr>
<tr>
<td>Femoral Nerve Block</td>
<td>Anterior thigh, femur, knee and skin over the medial aspect below the knee</td>
</tr>
<tr>
<td>Popliteal Nerve Block</td>
<td>Foot and ankle skin over the posterior lateral portion, distal to the knee</td>
</tr>
<tr>
<td>Tibial Block</td>
<td>Foot and ankle</td>
</tr>
<tr>
<td>Deep Peroneal Nerve</td>
<td>Foot [web space between 1st &amp; 2nd toes]</td>
</tr>
<tr>
<td>Saphenous Nerve Block</td>
<td>Foot [medial lower leg to malleolus]</td>
</tr>
<tr>
<td>Sural Nerve Block</td>
<td>Foot [lateral foot &amp; ankle]</td>
</tr>
</tbody>
</table>

### Local Anesthetics

- **Lidocaine (1%)**
  - **Onset**: Rapid
  - **Duration without Epi (h)**: 0.5-2
  - **Duration with Epi (h)**: 1-6
  - **Max Dose without Epi, mg/kg**: 4.5 (300 mg)
  - **Max Dose with Epi, mg/kg**: 7 (500 mg)

- **Ropivacaine (0.5%)**
  - **Onset**: Medium
  - **Duration without Epi (h)**: 3
  - **Max Dose, mg/kg**: 2.3
  - **Max Dose, mg/kg**: 2.3

- **Bupivacaine (0.5%)**
  - **Onset**: Slow
  - **Duration without Epi (h)**: 2-4
  - **Max Dose, mg/kg**: 2.5

- **Mepivacaine (1.5%)**
  - **Onset**: Rapid
  - **Duration without Epi (h)**: 2-3
  - **Max Dose, mg/kg**: 2.5

- **2-Chloroprocaine (1%)**
  - **Onset**: 0.5-1
  - **Duration without Epi (h)**: 1.5-2
  - **Max Dose, mg/kg**: 10

- **Mepivacaine (2%)**
  - **Onset**: Slow
  - **Duration without Epi (h)**: 2-4
  - **Max Dose, mg/kg**: 2.5

### Topical and Transdermal Medications*

- **Diclofenac sodium 1.5%, 2%/w topical solution (Pernaux)**
  - **Indications**: Osteoarthritis
  - **Onset [O] and Duration [D]**: Variable
  - **Recommended STARTING dose for ADULTS**: 1.5% soln: 40 drops QID, 2% soln: 2 pumps (45mg) BID to affected knee
  - **Recommended STARTING dose for CHILDREN**: —
  - **Max Dose**: 1.5% soln: 40 drops QID, 2% soln: (4mg) BID to affected knee

- **Fentanyl (Duragesic®)**
  - **Indications**: Persistent moderate to severe chronic pain in opioid tolerant patients
  - **Onset [O] and Duration [D]**: 12-24 h D: 72 h per patch
  - **Recommended STARTING dose for ADULTS**: 12-25 mcg q 72 h
  - **Recommended STARTING dose for CHILDREN**: 1 patch BID

- **Capsaicin cream (Theragen®, Zostrix®, DePuy)** Exacts as several OTC formulations in combination with camphor and menthol
  - **Indications**: Arthritis, osteoarthritis, diabetic neuropathy
  - **Onset [O] and Duration [D]**: Variable
  - **Recommended STARTING dose for ADULTS**: Apply a thin layer to the affected area and gently massage up to QID
  - **Recommended STARTING dose for CHILDREN**: —
  - **Max Dose**: —

### Pain-Ease® Vapoconfort/Skin Refrigerant

- **Indications**: Pain, severe pain, acute and chronic pain
  - **Onset [O] and Duration [D]**: D: 30-60 min
  - **Recommended STARTING dose for ADULTS**: 2% topical gel/jelly, 5% topical ointment, 2% oropharyngeal gel
  - **Recommended STARTING dose for CHILDREN**: —
  - **Max Dose**: —

### Dry-Ease® Dermal analgesic (Intact skin)

- **Indications**: For non-mucosal membrane and minor open wounds
  - **Onset [O] and Duration [D]**: D: 30-60 min
  - **Recommended STARTING dose for ADULTS**: 4% Lidocaine, 1:2,000 Epinephrine, 0.5% Tetracaine
  - **Recommended STARTING dose for CHILDREN**: —
  - **Max Dose**: —

### More Information

- For more information on nonpharmacologic interventions or to download a distraction toolkit, visit:
  - http://pami.emergency.med.jax.ufl.edu/resources/distraction-toolkit/
- Distraction materials and how you improved patient safety and clinical care more effectively:
  - http://pami.emergency.med.jax.ufl.edu/Contactus/