

 <b>County of San Diego</b> <b>EMS</b> A Division of San Diego County Fire	TREATMENT PROTOCOL		<b>S-141</b>
	<b>PAIN MANAGEMENT</b>		
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## BLS

- Assess level of pain
- Ice, immobilize, and splint PRN
- Elevation of extremity PRN

## ALS

- Continue to monitor and reassess pain using standardized pain scores
- Document vital signs before and after each medication administration

### Special considerations for all pain medications except acetaminophen

1. Changing route of administration requires BHO (e.g., IV to IM or IM to IN)
2. Changing analgesic requires BHO (e.g., fentanyl to ketamine)
3. Treatment with opioids if SBP <100 mmHg requires BHO
4. BHPO required prior to administration if
  - Isolated head injury
  - Acute onset severe headache
  - Drug/EtOH intoxication
  - Major trauma with GCS <15
  - Suspected active labor

### For mild pain (score 1-3), moderate pain (score 4-6), or severe pain (score 7-10)

No severe hepatic impairment, active liver disease or, refusal of opioids

- Acetaminophen 1000 mg IV over 15 min SO

### For moderate pain (score 4-6), severe pain (score 7-10)\*

#### Fentanyl (IV dosing)

- Up to 100 mcg IV SO
- MR up to 50 mcg IV q5 min x2 SO
- Maximum total SO dose 200 mcg IV

#### Fentanyl (IN dosing)

- Up to 50 mcg IN q15 min x2 SO
- 3<sup>rd</sup> dose fentanyl 50 mcg IN BHO

### If fentanyl unavailable

#### Morphine (IV dosing)

- Up to 0.1 mg/kg IV SO
- MR in 5 min at half initial IV dose SO
- MR in additional 5 min at half initial IV dose BHO

#### Morphine (IM dosing)

- Up to 0.1 mg/kg IM SO
- MR in 15 min at half initial IM dose SO
- MR in additional 15 min at half initial IM dose BHO

**Diego County Emergency Medical Services Office**  
**Policy / Procedure / Protocol**

	<p><b>For moderate to severe pain (score <math>\geq 5</math>) with trauma, burns, or envenomation injuries</b></p> <p>Ketamine requirements (must meet all)</p> <ul style="list-style-type: none"> <li>• <math>\geq 15</math> years old</li> <li>• GCS of 15</li> <li>• Not pregnant</li> <li>• No known or suspected alcohol or drug intoxication</li> </ul> <p><u>Ketamine (IV dosing)</u></p> <ul style="list-style-type: none"> <li>• 0.2 mg/kg in 100 mL of NS slow IV drip over 15 min SO. Maximum for any IV dose is 20 mg.</li> <li>• MR x 1 in 15 min if pain remains <b>moderate</b> or <b>severe</b> SO</li> </ul> <p><u>Ketamine (IN dosing)</u></p> <ul style="list-style-type: none"> <li>• 0.5 mg/kg IN (50 mg/mL concentration) SO. Maximum for any IN dose is 50 mg.</li> <li>• MR x 1 in 15 min if pain remains <b>moderate</b> or <b>severe</b> SO</li> </ul>
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\*Also applies to patients with mild pain (score 1-3) who refuse or have contraindications to acetaminophen and ketamine