

Pain Management

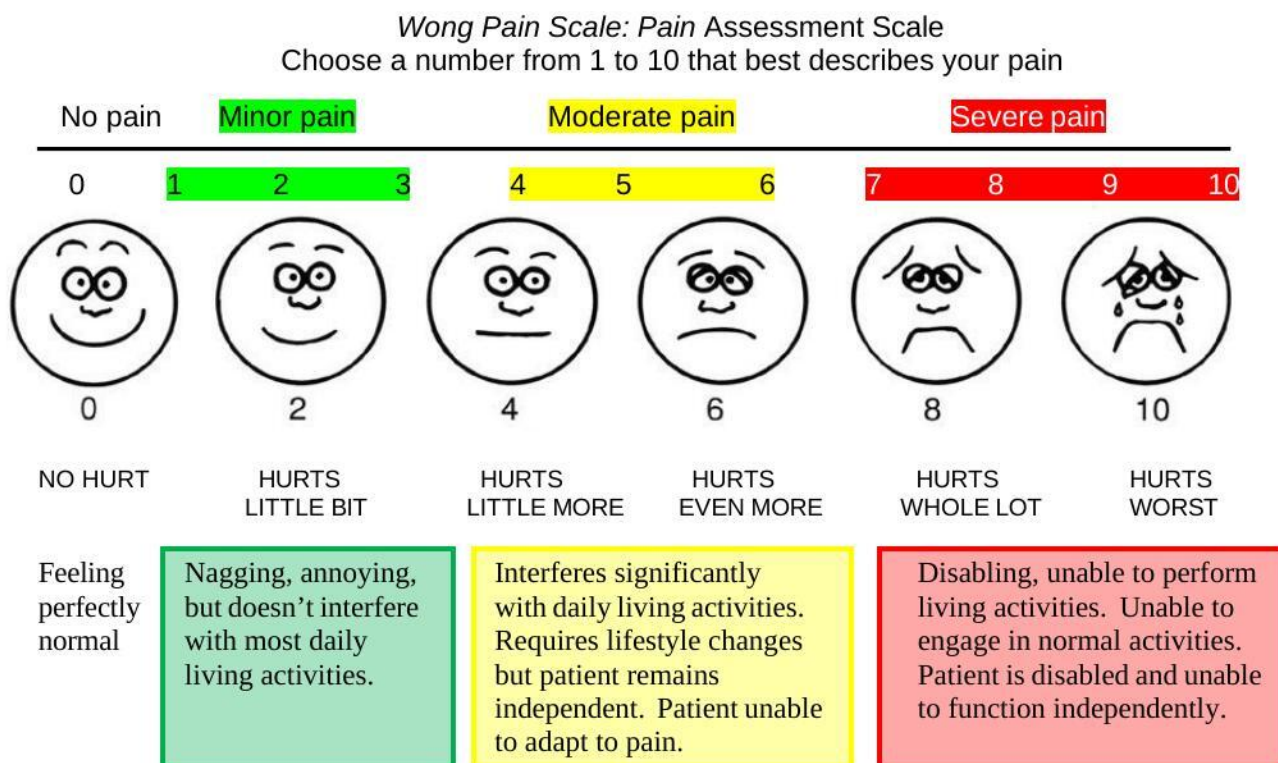
Aliases: Analgesia, pain control, acute pain

For patients with suspected cardiac chest pain, refer to the **Chest Pain/Acute Coronary Syndrome-Treatment Protocol**.

The goal is to reduce the level of pain for patients in the pre-hospital setting.

All pain should be assessed and scored according to the “Wong Pain Scale”.

Reassessment should be timed according to medication onset of action, changes in patient condition, patient positioning and other treatments. Pain treatment should be based on pain scale but may need modification based on patient assessment or condition being treated.



Note: Medical Control contact is required for patients with labor pains, established care plans that deter opioid pain management, or have established pain management care plans.,

1. Place the patient in the position of comfort.
2. Pediatric patients (≤ 14 years) utilize MI MEDIC cards for appropriate medication dosage. When unavailable utilize pediatric dosing listed within protocol
3. Verbally reassure the patient to control anxiety.

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4. Administer BLS interventions per applicable protocol (e.g., positioning, splinting, ice, etc.)
5. If not improved with BLS intervention, consider analgesia.
6. Start an IV if required for medication administration or per applicable treatment protocol being followed. **Vascular Access & IV Fluid Therapy-Procedure Protocol.**
7. Per MCA selection, for mild to moderate pain (described as 1-6 on the Wong Pain Scale), consider non-opioid analgesia.

MCA Selected Non-Opioid Analgesia
(MCA must select at least one) ☐

☒ **Acetaminophen:**

1. Adults (patients > 14 years of age), administer 650 mg PO
2. Pediatrics refer to MI MEDIC cards. When MI MEDIC cards are unavailable refer to dosing table below.

☒ **Ibuprofen**

1. Adults (patients > 14 years of age), administer 400 mg.
 - a. Do NOT use in pregnant patients.
2. Pediatrics (patients > 6 months of age and ≤ 14 years of age), refer to MI MEDIC cards. When MI MEDIC cards are unavailable refer to dosing table below.

☐ **Ketorolac (Toradol ®)**

1. Adults (patients >14 years of age), administer 15 mg IM/IV
 - a. Do NOT use in pregnant patients
2. Pediatrics (patients > 5 years of age and ≤ 14 years of age refer to MI MEDIC cards. When MI MEDIC cards are unavailable:
 - a. administer 1 mg/kg IM/IV (max dose 15 mg)

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Children's Elixir Dosing Table			
Child's Weight	Child's Age	Acetaminophen 160 mg/5mL	Ibuprofen 100 mg/5mL
3-5 kg (6-12 lbs.)	0-2 mos.	1.25 mL (40 mg)	DO NOT GIVE
6-7 kg (13-16 lbs.)	3-6 mos.	3 mL (96 mg)	DO NOT GIVE
8-9 kg (17-20 lbs.)	7-10 mos.	4 mL (128 mg)	4 mL (80 mg)
10-11 kg (21-25 lbs.)	11-18 mos.	5 mL (160 mg)	5 mL (100 mg)
12-14 kg (26-31 lbs.)	19 mos.-35 mos.	6 mL (192 mg)	6 mL (120 mg)
15-18 kg (32-40 lbs.)	3-4 yrs.	7 mL (224 mg)	7.5 mL (150 mg)
19-23 kg (41-51 lbs.)	5-6 yrs.	9 mL (288 mg)	9.5 mL (190 mg)
24-29 kg (52-64 lbs.)	7-9 yrs.	12 mL (384 mg)	13 mL (260 mg)
30-36 kg (65-79 lbs.)	10-14 yrs.	15 mL (480 mg)	15 mL (300 mg)

8. For patients with suspected kidney stone pain of any score, **ketorolac** should be considered first line if available.
9. For patients with severe pain (described as 7 or greater on the Wong Pain Scale), consider **ketamine** if applicable per MCA selection.



MCA Selection for **ketamine** use in pain management

☐ **Ketamine** not permitted. ☐

☐ Contact Medical Control prior to **ketamine** administration

☒ Administer **ketamine**

10. **Ketamine** may be administered IV/IO/IN as outlined below.
- Ketamine** for pain management given IV/IO should be diluted.
 - Dilution: the patient specific dose mixed with 100 ml **NS** and administer via slow infusion over 5-10 minutes to avoid dissociation symptoms.
 - Administer **ketamine** IV/IO/IN
 - Adults (patients > 14 years of age)
 - 0.2 mg/kg IV/IO (diluted) maximum single dose 25 mg
 - 0.5 mg/kg IN (undiluted) maximum single dose 50 mg
 - May repeat after 10 minutes.
 - Pediatrics (> 6 years of age and ≤ 14 years of age) refer to MI MEDIC cards. If MI MEDIC cards are unavailable follow below.
 - 0.2 mg/kg IV/IO (diluted) maximum single dose 7.2 mg
 - 0.5 mg/kg IN (undiluted) maximum single dose 18 mg
 - May repeat after 10 minutes.



- iii. Pediatrics (> 6 months of age and ≤ 6 years of age) refer to MI MEDIC cards. If MI MEDIC cards are unavailable follow below.

1. 0.5 mg/kg IN (undiluted) maximum single dose 18 mg
2. May repeat after 10 minutes.



11. For patients with refractory pain after **ketamine** administration, contact Medical Control prior to opioid administration.



12. If a patient is unable to tolerate **ketamine** or **ketamine** is not available and the patient has significant pain (described as 7 or greater on the Wong Pain Scale), opioid analgesia may be administered per MCA selection.

- a. Patients should receive only one opioid medication.
- b. If an IV is not available a single dose of opioid may be given IM.
- c. Do not administer additional pain medications after IM administration without on-line medical direction.



MCA Selected Opioid Analgesia

(Must select at least one)

Morphine

1. Adults (patients > 14 years of age), administer 0.1 mg/kg IV/IO (maximum single dose 5 mg). May repeat three times. Total dose may not exceed 20 mg.
-  2. Pediatrics (patients > 18 months of age and ≤ 14 years of age), refer to MI MEDIC cards. When MI MEDIC cards are unavailable administer:
 - a. 0.1 mg/kg IV/IO (maximum single dose 5 mg). May repeat three times. Total dose may not exceed 20 mg.
3. Do NOT administer Morphine to children ≤ 18 months of age.

Fentanyl

1. Adults (patients > 14 years of age and ≤ 65 years of age) administer 1 mcg/kg IV/IO/IN, max single dose 100 mcg, may repeat one time. Total dose may not exceed 200 mcg.

Adults > 65 years of age administer 0.5 mcg/kg IV/IO/IN, max single dose 50 mcg, may repeat three times. Total dose may not exceed 200 mcg.



- Pediatrics (patients ≤ 14 years of age), refer to MI MEDIC cards. When MI MEDIC cards are unavailable administer:
- a. 1 mcg/kg IV/IO/IN

If an IV is not available a single dose of opioid may be given IM. DO NOT ADMINISTER ADDITIONAL PAIN MEDICATIONS after IM administration without on-line medical direction.



13. Administer opioids slowly when using IV or IO routes. Systolic BP should be maintained at > 100 mm Hg for adult patients and $> 80 + (2 \times \text{age})$ mm Hg for pediatric patients.

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14. If nausea develops with pain medication administration, refer to **Nausea and Vomiting-Treatment Protocol**



15. For patients with evidence of hypotension or hypoperfusion, contact Medical Control

Medication Protocols

Acetaminophen

Fentanyl

Ibuprofen

Ketamine

Ketorolac

Morphine