

Effective Date : April 2019

Last Review: January 2017

Next Review: April 2021

Authority: Health and Safety Code, Division 2.5, California Code of Regulations, Title 22, Division 9

DEFINITION:

Pain is a subjective unpleasant sensory and emotional experience associated with actual or potential tissue damage. Any patient with a complaint of moderate or significant pain including but not limited to: burn patients, frostbite, bites and envenomation, crush injuries, extremity injuries, traumatic injuries, abdominal pain, sickle cell crisis, cancer, prolonged extrication, renal colic, etc.

May use morphine or fentanyl alone or in combination up to a max of 20 mg morphine equivalents; Ketamine MAY NOT be administered in conjunction with morphine or fentanyl.

**Morphine Equivalents: 10 mg morphine = 100 mcg fentanyl
5 mg morphine & 50 mcg fentanyl = 10 mg morphine**

BLS TREATMENT:

OXYGEN: as appropriate, goal to maintain SPO2 at least 94%, Assist ventilations as necessary.

VITALS: assess vitals

POSITION: splint injured extremity, ice and elevation as needed to prevent swelling.

PSYCHOLOGICAL SUPPORT: reassure patient

ALS TREATMENT:

MONITOR: treat rhythm as appropriate

IV ACCESS: IV normal saline preferred, rather than saline lock

CAPNOGRAPHY: utilize wave form capnography for narcotic doses greater than 10 mg morphine equivalent or with ketamine administration.

MILD TO MODERATE PAIN – 1 TO 5 ON PAIN SCALE. MAY ADMINISTER ONE OR BOTH OF THESE AGENTS

Acetaminophen: 15 mg/kg maximum 1000 mg IV/IO infusion over 20 minutes **SINGLE DOSE ONLY.** Consider 2nd IV site if necessary.

Ketorolac: 15 mg IV/IO slow IVP over 15 seconds, 30 IM/IN mg **SINGLE DOSE ONLY.**

Acetaminophen and/or Ketorolac may be administered in addition to opioids or ketamine for patients with severe pain.

Ketorolac is the preferred agent for patients with suspected kidney stones or chronic back pain.

Do not administer acetaminophen to patients with severe hepatic impairment or active liver disease.

Do not administer ketorolac history of renal disease or kidney transplant; hypotension defined as systolic BP less than 90 mm Hg; history of GI bleeding or ulcers; current anticoagulation therapy or active bleeding; current steroid use; greater than 65 years of age; known allergy or hypersensitivity to NSAIDS (non-steroidal anti-inflammatory medications); history of Asthma; pregnant or high possibility of pregnancy; headaches suspected from acute intracranial bleed.

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SEVERE PAIN – 5 OR HIGHER ON PAIN SCALE

MORPHINE SULFATE: **IV** 2-5 mg may repeat every 5 to 10 minutes as needed. Max total dose 20 mg. A max single dose is 5 mg.

IM 5-10 mg may repeat once in 10 to 15 minutes up to max of 20 mg total dose. If a repeat dose is needed, highly consider IV access.

FENTANYL: **IV** 1 mcg/kg max dose 50 mcg slow IV,

May repeat every 5 minutes at 0.5 mcg/kg to 1 mcg/kg max dose of 50 mcg if systolic BP is greater than 90

Total max dose of 200 mcg or 20 mg morphine equivalents

IM 1 mcg/kg max dose 50 mcg, may repeat every 15 to 20 minutes, if systolic BP is greater than 90, up to a max of 200 mcg or 20 mg morphine equivalents. If a repeat dose is needed highly consider IV access.

IN 1.5 mcg/kg 75 mcg single max dose. Administer ½ dose to each nostril. May repeat once after 10 minutes if systolic BP is greater than 90

CONTACT BASE HOSPITAL FOR DOSES EXCEEDING 20 MG MORPHINE EQUIVALENTS

KETAMINE

INDICATIONS: The utilization of prehospital Ketamine should be considered for acute pain including traumatic or burn injuries in all patients that have a pain score of 5 or greater on a pain scale of 1-10 and meet **ALL** of the following criteria:

1. Age 15 years and older.
2. GCS (Glasgow Coma Scale) of 15.

CONTRAINDICATIONS:

1. Known or suspected alcohol or drug intoxication.
2. Known or suspected pregnancy.
3. Allergy to Ketamine.

DO NOT PUSH KETAMINE IV/IO. KETAMINE & FENTANYL/MORPHINE MAY NOT BE ADMINISTERED TO THE SAME PATIENT.

KETAMINE IV: 0.3 mg/kg to a maximum single dose of 30 mg mixed in 100-250 ml of normal saline or D5W; **SLOW IV INFUSION** over 5 minutes; May repeat after 15 minutes if pain scale remains at 5 or higher.

KETAMINE IM/IN: 0.5 mg/kg to a maximum single dose of 30 mg. IN give ½ dose to each nostril; May repeat after 15 minutes if pain scale remains at 5 or higher.

BASE HOSPITAL ORDER:

1. Isolated head injury.
2. Acute onset severe headache.
3. Drug/ETOH ingestion or intoxication.
4. Multisystem trauma patient with GCS less than 15.

BE SURE TO INFORM THE NURSE OR PHYSICIAN AT RECEIVING FACILITY THAT THE PATIENT RECEIVED KETAMINE PRIOR TO ARRIVAL.

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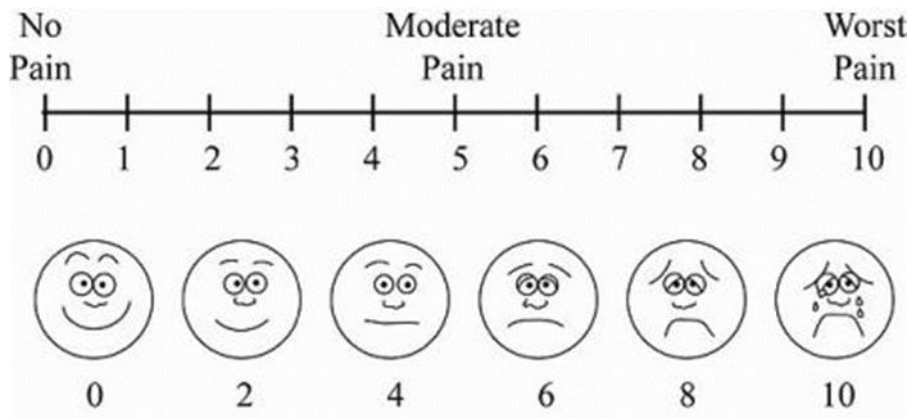
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DOCUMENTATION:

1. Initial vital signs (including weight) and initial pain score and subsequent pain scores
2. GCS: pre, during and post medication administration
3. Time medication was given
4. Total dose of medication
5. Any adverse or side effects related to medication

MANDATED PAIN SCALE:



CONSIDERATIONS: Administer Fentanyl slowly to prevent Rigid Chest Syndrome; Naloxone may reverse Rigid Chest Syndrome. Ondansetron can be used to prevent or treat nausea associated with narcotic administration, please refer to Adult Policy M1 Nausea and Vomiting. Do not utilize with patients who have a GCS less than 14, Use with caution in patients who have sustained a traumatic brain injury and are under the influence of other substances (alcohol, illicit drugs, and sedatives/hypnotics). If patient shows signs of respiratory depression (shallow respirations and rate less than 12) use Naloxone 0.5 mg IV, IN, and IM as necessary to increase respiratory rate. Do not use Naloxone for pin point pupils only.