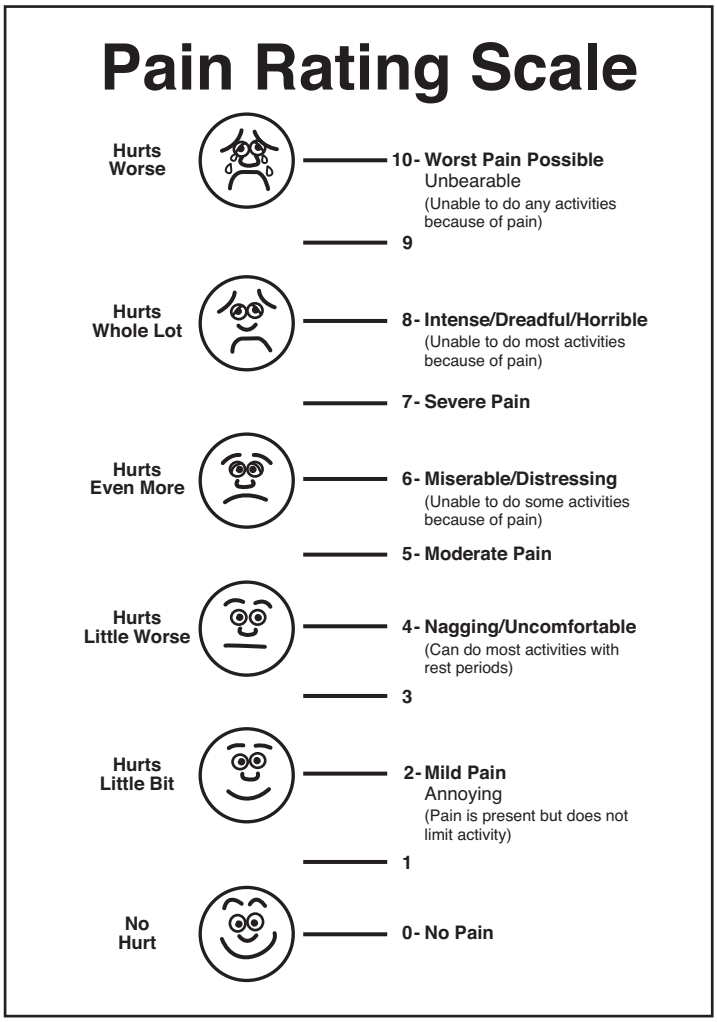
LL. PAIN MANAGEMENT

1. Inclusion Criteria

   Pain may be present in many different conditions. Management of pain in the field can help to reduce suffering, make transport easier, and allow the emergency department personnel to initiate specific treatment sooner.

2. Treatment Indications

   a) Measure level of pain. Ask adults to rate their pain on a scale from 0 **(no pain)** to 10 **(worst pain imaginable)**. Young children can be asked to rate their pain using the FACES scale, which provides 5 levels of pain perception.



LL. PAIN MANAGEMENT (Continued)

b) Allow patient to remain in position of comfort unless contraindicated.
c) Monitor airway and vitals signs every 5 minutes for unstable patients.
d) Mild pain
   (1) Indications for pain management
      (a) Isolated musculoskeletal injuries such as sprains and strains
      (b) Pain related to childhood illnesses such as headache, ear infection, and pharyngitis
   (2) Contraindications for pain management with acetaminophen
      (a) Head injury
      (b) Hypotension
      (c) Administration of acetaminophen or medications containing acetaminophen within the previous four hours
      (d) Inability to swallow or take medications by mouth
      (e) Respiratory distress
      (f) Persistent vomiting
      (g) Known or suspected liver disease
      (h) Allergy to acetaminophen
   (3) Administer acetaminophen to patients ages 2 years and above judged to be in mild to moderate discomfort.
      (2–5 on FACES scale) by child or parent.
      (a) Standard unit dosing of liquid preparation:
         (i) Less than 2 years of age: Not indicated
         (ii) 2–4 years: Unit dose 160 mg/5 mL
         (iii) 5–12 years: TWO unit doses of 160 mg/5 mL each for a total of 320 mg/10 mL
         (iv) 13 years and older: FOUR unit doses of 160 mg/5 mL each for a total of 640 mg/20 mL OR in a form of 325 mg pill or tablet X 2 for a total of 650 mg with sips of water as tolerated by the patient.

ALERT

ADMINISTRATION OF ACETAMINOPHEN FOR MILD TO MODERATE PAIN DOES NOT ELIMINATE THE NEED FOR TRANSPORT OF THE PATIENT TO THE HOSPITAL TO RECEIVE A COMPREHENSIVE EVALUATION OF THE CAUSE OF THEIR PAIN AND APPROPRIATE DEFINITIVE TREATMENT.

e) Moderate to severe pain
   (1) Indications for pain management
      (a) The patient reports moderate to severe pain.
      (b) In the clinician's judgment, the patient will benefit from treatment with an analgesic, including patients who are MOLST and/or EMS/DNR patients or being pre-medicated for a procedure .

LL. PAIN MANAGEMENT (Continued)

(2) Contraindications for pain management
  (a) Hypersensitivity or known allergy to the medication
  (b) Uncorrected respiratory distress or hypoxemia refractory to supplemental oxygen
  (c) Uncorrected hypotension, defined as a persistent systolic pressure less than 90 mmHg

(3) Administer agent
  (a) Fentanyl IN preferred IV/IO/IM
    (i) Administer 1 mcg/kg to a maximum initial dose of 200 mcg (For IN route, dosing may be limited due to volume limitations - administration of max 1mL per nare).
    (ii) Reassess in 5–10 minutes. If pain remains moderate to severe, then administer a second dose of fentanyl 1 mcg/kg to a maximum dose of 200 mcg.
    (iii)  Obtain on-line medical direction for additional doses, if required.

  OR

  (b) Morphine IV/IM
    (i) Administer 0.1 mg/kg maximum single dose of 20 mg.
    (ii) Reassess in 5–10 minutes. If pain remains moderate to severe, then administer a second dose of morphine 0.05 mg/kg to a maximum additional dose of 10 mg.
    (iii)  Obtain on-line medical direction for additional doses, if required.

  OR

  (c) Ketamine IV/IO/IN/IM
    (i) Administer 0.2 mg/kg IV/IO over 1–2 minutes. Maximum single dose 20 mg.
      a. Reassess in 5–10 minutes. If pain remains moderate to severe, then administer a second dose of ketamine 0.2 mg/kg IV/IO over 1–2 minutes. Maximum single dose 20 mg.
      b. If IV unavailable, administer 0.5 mg/kg IN/IM (If delivery device is available; divide administration of the dose equally between the nares to a maximum of 1 mL per nare).
      c. Reassess in 15 minutes. If pain remains moderate to severe, then administer a second dose of ketamine 0.5 mg/kg IN/IM.

INDICATED FOR MUSCULOSKELETAL EXTREMITY/BACK PAIN. NOT FOR CHEST PAIN, ABDOMINAL/FLANK PAIN, OR HEADACHE.

OR

  (d) Ketorolac IV/IM **(NEW '20)**
    (i) Administer single dose of 15 mg IV only. No repeat doses.
    (ii) If IV unavailable, administer single dose of 30 mg IM. No repeat doses.

(e) Fentanyl IN. If IN route not accessible, IV/IO/IM
  (i) Administer 1 mcg/kg to a maximum initial dose of 200 mcg (For IN route, dosing may be limited due to volume limitations - administration of max 1mL per nare).
  (ii) Reassess in 5–10 minutes. If pain remains moderate to severe, then administer a second dose of fentanyl 1 mcg/kg to a maximum dose of 200 mcg.
  (iii) Obtain on-line medical direction for additional doses, if required.

OR

(f) Morphine IV/IM
  (i) Administer 0.1 mg/kg maximum single dose of 20 mg.
  (ii) Reassess in 5–10 minutes. If pain remains moderate to severe, then administer a second dose of morphine 0.05 mg/kg to a maximum additional dose of 10 mg.
  (iii) Obtain on-line medical direction for additional doses, if required.

OR

(g) Ketamine IV/IO/IN/IM
  (i) Administer 0.2 mg/kg IV/IO over 1–2 minutes. Maximum single dose 20 mg.
    a. Reassess in 5–10 minutes. If pain remains moderate to severe, then administer a second dose of ketamine 0.2 mg/kg IV/IO over 1–2 minutes. Maximum single dose 20 mg.
    b. If IV unavailable, administer 0.5 mg/kg IN/IM (If delivery device is available; divide administration of the dose equally between the nares to a maximum of 1 mL per nare).
    c. Reassess in 15 minutes. If pain remains moderate to severe, then administer a second dose of ketamine 0.5 mg/kg IN/IM

ALERT INDICATED FOR MUSCULOSKELETAL EXTREMITY/BACK PAIN. NOT FOR CHEST PAIN, ABDOMINAL/FLANK PAIN, OR HEADACHE.

OR

(h) Ketorolac IV/IM **(NEW '20)**
  (i) Patients who have not yet reached their 2nd birthday: Contraindicated.
  (ii) Age 2 to patients who have not yet reached their 18th birthday: Administer 0.5 mg/kg IV to a maximum total dose of 15 mg. No repeat doses
  (iii) If IV is unavailable, administer 1 mg/kg IM to a maximum total dose of 30 mg. No repeat doses.

LL. PAIN MANAGEMENT (Continued)

CHEST PAIN THAT IS THOUGHT TO BE DUE TO ACUTE CORONARY SYNDROME SHOULD INITIALLY BE MANAGED WITH NITROGLYCERIN. IF PAIN REMAINS REFRACTORY TO NITROGLYCERIN, CONSIDER THE USE OF OPIOID ANALGESIA. AVOID OPIOIDS FOR PATIENTS WITH SUSPECTED EXACERBATION OF CONGESTIVE HEART FAILURE.

USE OPIOID ANALGESIA WITH CAUTION IN THE MANAGEMENT OF THE MULTIPLE TRAUMA PATIENT. OBSERVE FOR EVIDENCE OF HYPOTENSION AND CORRECT AS NEEDED WITH FLUID BOLUSES. REASSESS VITAL SIGNS AFTER ADMINISTRATION OF THE MEDICATION.

USE ANALGESIA WITH CAUTION IN THE MANAGEMENT OF PATIENTS WITH ALTERED MENTAL STATUS. OBSERVE FOR RESPIRATORY DEPRESSION AND TAKE STEPS AS NEEDED TO ENSURE A STABLE AIRWAY.

(4) Repeat. Measure level of pain and monitor the patient's level of pain during subsequent treatment and transport.

PATIENTS WHO HAVE RECEIVED A PARENTERAL (IV/IO/IM/IN) DOSE OF OPIOID, BENZODIAZEPINE, OR KETAMINE FROM SENDING FACILITY OR ALS MUST BE TRANSPORTED BY ALS **(NEW '20)**:

- IF ANY OF THE ABOVE MEDICATIONS WERE GIVEN WITHIN THE PAST 1 HOUR OR
- IF THE PATIENT HAS AN ALTERED MENTAL STATUS WITHOUT RETURN TO THEIR BASELINE AFTER RECEIVING ANY OF ABOVE MEDICATIONS OR
- IF THE PATIENT HAS POTENTIAL FOR RESPIRATORY COMPROMISE (RR<14, OXYGEN SATURATION LESS THAN 94%, CLINICIAN JUDGMENT) AFTER RECEIVING ANY OF THE ABOVE MEDICATIONS.