Pain Control

History
- Age
- Location
- Duration
- Severity (1 - 10)
- If child use Wong-Baker faces scale
- Past medical history
- Medications
- Drug allergies

Signs and Symptoms
- Severity (pain scale)
- Quality (sharp, dull, etc.)
- Radiation
- Relation to movement, respiration
- Increased with palpation of area

Differential
- Per the specific protocol
- Musculoskeletal
- Visceral (abdominal)
- Cardiac
- Pleural/ Respiratory
- Neurogenic
- Renal (colic)

Specific Complaint Protocol

Assess Pain Severity

Combination of Pain Scale, MOI, circumstances, Injury or Illness severity

Mild

B

Ibuprofen 10 mg/kg PO
(400 – 600 mg typical adult)
Maximum 800 mg
Or
Acetaminophen 15 mg/kg
(325 – 1000 mg typical adult)
Maximum 1000 mg
Or
Aspirin 324 to 650 mg PO
(≥ 16 only)

If no improvement
Consider
IV or IO Access Protocol UP 6
if indicated

Monitor and Reassess
Every 10 minutes following sedative

Moderate to Severe

IV or IO Access Protocol UP 6

A

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P

Cardiac Monitor

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Fentanyl 50 – 100 mcg IV / IO / IM
Repeat every 5 minutes
Maximum 3 mcg/kg
Peds: 1 mcg/kg IV / IO / IM / IN
May repeat 0.5 mcg/kg every 5 minutes
Maximum 2 mcg/kg
Or
Morphine 4 mg IV / IO / IM
Repeat **2 mg** every 5 minutes as needed
Peds: 0.1 mg/kg IV / IO / IM
May repeat every 5 minutes
Maximum 10 mg

Ketamine 0.3 mg/kg IV / IO
Infuse or IV push over 10 minutes

May repeat every 20 minutes
Maximum 30 mg single dose

Maximum 3 total doses
Or
Ketamine 1 mg/kg IN
Maximum 1 total dose

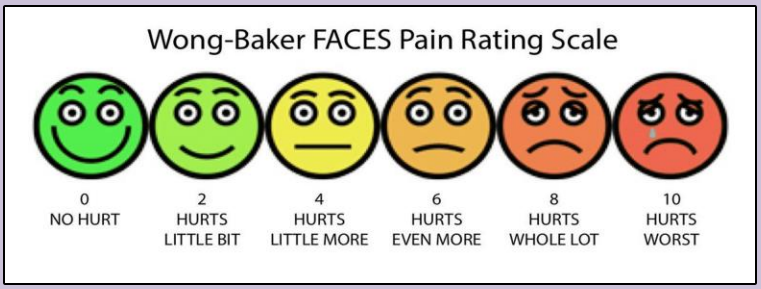
Notify Destination or Contact Medical Control

Universal Protocol Section

Pain Control

The relief of pain is a key aspect in emergency medicine care:

1. Pain is the most common complaint EMS encounters. 50 – 75 % of all patients are experiencing pain.
2. An essential mission of EMS providers is the relief of pain.
3. We are often judged in how effective we are in relieving pain.
4. Often procedures we perform cause pain.
5. Unrelieved pain is associated with many untoward effects.
    a. Increased sympathetic response.
    b. Increase in peripheral vascular resistance.
    c. Increase in myocardial oxygen consumption.
    d. Increase in carbon dioxide production.
    e. Increase in clotting potentials.
    f. Decrease in gastric motility.
    g. Decrease in immune function.
6. It is important to measure, document and treat pain.
7. Poorly treated acute pain can lead to a patient experiencing chronic pain as a response.



Measurement of pain:

1. Use the verbal pain scale of 0 – 10. Explain to the patient how the system works, zero is no pain and 10 is the worst pain you can imagine.
- An example may be hitting your hand with a sledge hammer. If the patient uses a number like 11 or 20 then the patient does not understand the scale and/ or you have not explained the score clearly. The worst pain you can imagine is 10, 20 does not exist.

2. If a person cannot speak, but hears and understands or reads lips then you can draw the pain scale on paper from 0 – 10 and ask the patient to point the their pain number.
- Unfortunately the only device we have to truly measure pain is the patient and this totally relies on their perception. While you can use demeanor, facial expression and other body language to help assess the degree of pain they are not reliable alone.

Approach to pain management:

1. We have several classes of pain relievers.
- Initial attempts at pain relief can begin with ibuprofen or acetaminophen as long as the patient may take liquids/ medications by mouth.

2. Opioids: Morphine is well known an commonly used. It is well known to cause histamine release which can cause itching but more importantly hypotension.
- In patients where hypotension is a concern Fentanyl is a better choice. IV, IO route is preferred as it is better titrated. IM use has variable and unpredictable onset of action.

3. Abdominal pain/ orthopedic injuries: In a patient
- **You may use PO pain medications in patients who are not actively vomiting.**
- **Patients where surgery is anticipated, may have pain medications by mouth and a small amount of water to help swallow.**

Pearls

- **Recommended Exam: Mental Status, Area of Pain, Neuro**
- **Pain severity (0-10) is a vital sign to be recorded before and after PO, IV, IO or IM medication delivery and at patient hand off. Monitor BP closely as sedative and pain control agents may cause hypotension.**
- **Ketamine:**
    Ketamine may be used in patients who are outside a Pediatric Medication/ Skill Resuscitation System product.
    Ketamine may be used in patients who fit within a Pediatric Medication/ Skill Resuscitation System product only with DIRECT ONLINE MEDICAL ORDER, by the system MEDICAL DIRECTOR or ASSISTANT MEDICAL DIRECTOR.
- **Ketamine: appropriate indications for pain control:**
    Patients who have developed opioid-tolerance. Sickle cell crisis patients with opioid-tolerance.
    Patients who have obstructive sleep apnea.
    May use in combination with opioids to limit total amount of opioid administration.
- **Ketamine: caution when using for pain control:**
    Slow infusion or IV push over 10 minutes is associated with less side effects. Do not administer by rapid IV push.
    Avoid in patients who have cardiac disease or uncontrolled hypertension.
    Avoid in patients with increased intraocular pressure such as glaucoma.
    Avoid use in combination with benzodiazepines due to depressed respiratory drive.
- **Both arms of the treatment protocol may be used in concert. For patients in Moderate pain for instance, you may use the combination of an oral medication and parenteral if no contraindications are present.**
- **Pediatrics:**
    For children use Wong-Baker faces scale or the FLACC score (see Assessment Pain Procedure ASP 2)
    Use Numeric (> 9 yrs), Wong-Baker faces (4-16yrs) or FLACC scale (0-7 yrs) as needed to assess pain.
- **Vital signs should be obtained before, 10 minutes after, and at patient hand off with all pain medications.**
- All patients who receive IM or IV medications must be observed 15 minutes for drug reaction in the event no transport occurs.
- Do not administer **Acetaminophen** to patients with a history of liver disease.
- Burn patients may required higher than usual opioid doses to titrate adequate pain control.
- Consider agency-specific anti-emetic(s) for nausea and/ or vomiting.