Pain Management
Emergency Treatment Guideline

Background

One of the first principle of first aid is to reduce suffering. Pain management is one of the main means to achieve this goal. Research has demonstrated that pre-hospital pain management has both short term and long-term benefits. In the short term the patient is more comfortable and can tolerate an evacuation over rough terrain much better. In the long-term, patients who receive pain management pre-hospital require less pain medication once in the hospital and in some studies have had shorter stays in the hospital because of early pain control.

Assessment

Individuals have a wide experience of pain. As such, the standard assessment tool is to ask the patient to grade the pain on a scale from zero to 10 with zero being no pain and 10 being the worst pain they can imagine. Pain should be monitored repeatedly via this verbal analog scale. Although a complete assessment includes physical exam and vitals, the main evaluative tool for managing pain is the patient's own report of pain level – regardless of clinical presentation.

Treatment

Treatment of pain not only includes pain medications but must include other measures to reduce and manage pain. Good splints and immobilization are important in reducing pain. The application of Ice and positioning (elevate trauma injuries if possible) contributes to pain reduction. Assist the patient into a position of comfort. Finally talking with the patient—using relaxation and visualization techniques -- is important to management the patient's perception of pain. Pain treatment's goal is to reduce pain to a tolerable level and not get ride of it entirely.

Mild to moderate pain medications -- patient reports levels of 0 to 6 out of 10.

Consider administering one of the following medications:

Ibuprofen

Adult -- 200 to 400 mg every 4 to 6 hours to a maximum of 2400 mg per day.

12 to 17 years old – 200 mg every 4 to 6 hours to a maximum of 1200 mg per day

6 to 11 years old – 5 to 10 mg/kg every 4 to 6 hours to a maximum of 40mg/kg/day.

Acetaminophen

Adult -- 325 to 1000 mg ever 4 to 6 hours to a maximum of 4000 mg per day.

12 to 17 years old – 325 to 650 mg every 4 to 6 hours to a maximum of 3000 mg per day.

6 to 11 years old - 10 to 15 mg/kg every 4 to 6 hours to a maximum of 60 mg/kg/day

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Cautions

Ibuprofen (nonsteroidal anti-inflammatory drugs --NSAID)

- Allergies or sensitivities to any NSAIDs
- Patient on anticoagulant therapy
- Current active bleed
- Stroke or Traumatic Brain injury in past 24 hours
- Prior use of NSAID in past 4 hours
- History of ulcers or GI bleed
- For patients who could be dehydrated, e.g. participating in endurance events (> 4 hours), be cautious with administering Ibuprofen, as it may cause kidney injury

Acetaminophen

- Allergy or sensitivity to acetaminophen
- Prior use of acetaminophen in past 4 hours

Moderate to Severe Pain Medications – patient reports a pain level of 7 to 10 out of 10.

Combine the above dosages of Ibuprofen and Acetaminophen in one administration.

The following guidelines are for Wilderness First Responder certified providers only

Introduction:

The above medications work at the site of injury to reduce pain and inflammation. In addition to these medications, WFR providers may consider administering Codeine and/or Penthrox for moderate to severe pain. Codeine and Penthrox effect the brain's perception of pain. As this is a different means of decreasing pain than NSAIDS or acetaminophen, the two groups of medications can be administered together for severe pain.

This treatment guide is limited to adults only.

CODEINE

Codeine is package in a wide variety of strengths and combined with either ASA or Acetaminophen. Below are two common medication combinations**. READ THE PACKAGING VERY CARFULLY:**

AC&C

These tablets contain either ASA or Acetaminophen:

ASA or Acetaminophen 325 mg

Codeine 8 mg

Caffeine 15 mg

T3

Acetaminophen 325 mg

Codeine 30 mg

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Adult Dosage:

Codeine up to 60 mg per dose – daily maximum 360 mg.

ASA up to 975 mg per dose – daily maximum 3000 mg.

Acetaminophen up to 1000 mg per dose – daily maximum 4000 mg.

Penthrox (methoxyflurane)

Indications:

Moderate to severe pain from a traumatic source – M/S injury, burns, lacerations etc. The patient must be able to self administer -- cooperative with no decrease in mental status. Can be used as a procedural analgesic for procedures such as: fishhook removal, wound cleaning, shoulder reduction.

Dose:

3 ml vial in "Green Whistle" instruct patient to take 6 to 10 slow inhalations through device. Onset is generally 3 to 5 minutes. Patient can continue to inhale medication based on level of pain. One dose will generally last 30 to 60 minutes. If necessary, a second dose (3 ml) may be administered 30 minutes after the start of the first dose. No more that 6 ml may be administered in 7 days.

Cautions:

Do not administer to patient with the following conditions:

- Pregnant or could be pregnant
- History of kidney disease
- History of Liver disease
- Currently taking tetracycline
- History of, or family history, of adverse reaction to inhaled anaesthetics.

Evacuation Considerations

Mild to moderate pain patients can be treated and monitored in the field. Patients requiring repeated pain management should be evacuated for medical assessment. The use of Penthrox or Codeine to manage pain indicates evacuation. All severe pain patients are evacuated to medical care for treatment of the underlying causes. Urgency of evacuation is based on the underlying causes of pain.

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