

Kittitas County Prehospital EMS Protocols

SUBJECT: PAIN MANAGEMENT

- A. Appropriate management of acute pain is an essential part of patient care in the prehospital setting. The paramedic shall choose the appropriate medication to best match the patient's clinical presentation and alleviate symptoms, recognize that not all patients will respond to the same medications in the same way. Special care shall be given in the management of pediatric and geriatric populations to avoid unwanted side effects of pain management medications.
- B. Based on the patient's clinical presentation, the paramedic will choose a medication from among the following classes to treat the patient's symptoms, to achieve adequate symptom relief, the paramedic may choose to use a combination of medications across the different classes. The paramedic will recognize the synergistic effects of such medications and take care to avoid unwanted side effects.

****REFERENCE COUNTY MEDICATION PROTOCOLS FOR SPECIFIC INFORMATION PERTAINING TO INDICATIONS, CONTRAINDICATIONS, AND SIDE EFFECTS. ****

1. OPIOID ANALGESICS

i. Fentanyl Citrate

Adult:

IV, IO, or IM: 25-50 mcg/kg, not to exceed a total dose of 3 mcg/kg.

IN: 1-3 mcg/kg, not to exceed 3 mcg/kg

Pediatrics:

IV, IO, or IM: 25-50 mcg, not to exceed a total dose of 3 mcg/kg.

IN: 1-2 mcg/kg, not to exceed 100 mcg

ii. Morphine Sulfate

Adults:

Cardiac Pain Management – 2-5mg IV, IO, or IM. May repeat 2mg doses until pain is relieved, respiratory depression ensues, or hypotension.

Non-Cardiac Pain Management – Initial dose of 0.1mg/kg IV, IO, or IM. May repeat one-half of the initial dose every 5-10 minutes as needed.

Sedation Management – 2mg IV, IO, or IM. May repeat every 5 minutes as needed to a total dose of 0.1mg/kg.

Pediatrics: 0.1 mg/kg IV, IO, or IM up to 5mg.

****NOTE: NARCOTIC ADMINISTRATION REQUIRES A SYSTOLIC BLOOD PRESSURE > 100mmHg PRIOR TO ADMINISTRATION****

iii. Hydromorphone (Dilaudid)

Adults:

IV, IO, or IM: 0.5-1mg. May repeat dose every 30 minutes as needed.

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Pediatrics:

IV, IO, or IM: 0.015mg/kg. May repeat dose every 30 minutes as needed.

NOTE: Max dose will vary secondary to transport time and patient severity. If a patient becomes hypotensive or has respiratory depression, cease administration, and contact medical control if needed.

2. SEDATIVE/HYPNOTICS

i. Ketamine

Adults:

IM: 0.3 mg/kg, to max dose of 10 mg/kg

IV/IO: 0.5-4.5 mg/kg, to max dose of 5 mg/kg

Pediatrics:

IM: 0.3 mg/kg, to max dose of 10 mg/kg

IV/IO: 0.5-4.5 mg/kg, to max dose of 5 mg/kg

ii. Lorazepam (Ativan)

Adults:

IV, IO, or IM: 1mg (used commonly in combination with opioid analgesics).

Pediatrics: Not currently recognized.

iii. Midazolam (Versed)

Adults:

IN: 0.2 mg/kg, not to exceed 5 mg

Pediatrics:

IN: 0.1 mg/kg, not to exceed 0.2 mg/kg

iv. Nitrous-Oxide

Adults: 50% Nitrous-oxide and 50% oxygen blend, inhaled and self-administered.

Pediatrics: 50% Nitrous-oxide and 50% oxygen blend, inhaled and self-administered.

3. NONSTEROIDAL ANTI-INFLAMMATORY (NSAID)

i. Toradol (Ketorolac, Tromethamine)

Adults:

IV/IO: 30mg

IM: 60mg

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Pediatrics: PATIENTS MUST BE >2 YEARS OLD
IV, IO, or IM: 0.5 mg/kg, up to 30mg MAXIMUM.

- C. Nausea and allergic reaction may occur following administration of some pain management medications. The paramedic will consider administering **Zofran** 4-8mg IV, IO, IM or PO for nausea and **Benadryl** 25-50mg IV, IO or IM for allergic reaction.