# **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

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

## 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 0.1 mg/kg IV, IO or IM. May repeat one-half of the initial dose every 5-10 minutes as needed. **Sedation Management** – 2 mg IV, IO, or IM. May repeat every 5 minutes as needed to a total dose of 0.1 mg/kg.

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

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

# iii. Hydromorphone (Dilaudid)

Adults: <u>0.5-1mg IV, IO or IM.</u> May repeat dose every 30 minutes as needed. Pediatrics: <u>0.015mg/kg IV, IO or IM.</u> May repeat dose every 30 minutes as needed.

# 2. SEDATIVE/HYPNOTICS

#### i. Ketamine

Adults: <u>0.3mg/kg IV, IO or IM.</u> Pediatrics: <u>0.3mg/kg IV, IO or IM.</u>

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# ii. Lorazepam (Ativan)

Adults: <u>1mg IV, IO or IM</u> (used commonly in combination with opioid analgesics).

Pediatrics: Not currently recognized.

### iii. 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: 30mg IV or IO, or 60mg IM.

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

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

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