OPIOIDS (FENTANYL, MORPHINE)

Description
Opioid analgesics with desired effects of analgesia, euphoria and sedation as well as undesired effects of respiratory depression and hypotension. A synthetic opioid, fentanyl is 100 times more potent than morphine, and is less likely to cause histamine release.

Indications
- Treatment of hemodynamically stable patients with moderate to severe pain due to traumatic or medical conditions, including cardiac conditions, abdominal pain, back pain, etc.
- Treatment of shivering after therapeutic induced hypothermia (TIH).

Contraindications
- Hypotension, hemodynamic instability or shock
- Respiratory depression

Caution/Comments:
- Opioids should only be given to hemodynamically stable patients and titrated slowly to effect.
- The objective of pain management is not the removal of all pain, but rather, to make the patient’s pain tolerable enough to allow for adequate assessment, treatment and transport
- Respiratory depression, including apnea, may occur suddenly and without warning, and is more common in children and the elderly. Start with ½ traditional dose in the elderly.
- Coadministration of opioids and benzodiazepines is discouraged and may only be done with direct physician verbal order.
- Chest wall rigidity has been reported with rapid administration of fentanyl

Dosage and Administration

**FENTANYL:**

**Adult:**
- **IV/IO/IM route:** 1-2 mcg/kg, SLOW IV/IO bolus.
  - Dose may be repeated after 10 minutes and titrated to clinical effect to a maximum cumulative dose 200mcg
  - Additional dosing requires BASE CONTACT

- **IN route:** 1-2 mcg/kg IN single dose.
  - Repeat dosing only via IV route, and 10 minutes after initial IN dose up to a maximum cumulative dose of 200mcg
  - Additional dosing requires BASE CONTACT

**Pediatric (1-12 years):** (Use length based tape for appropriate dosing)
- **IV/IO/IM route:** 1 mcg/kg SLOW IV/IO bolus.
  - Dose may be repeated after 10 minutes and titrated to clinical effect to a maximum cumulative dose of 3 mcg/kg

- **IN route:** 1 mcg/kg IN single dose.
  - Repeat dosing only via IV route, and 10 minutes after initial IN dose up to a maximum cumulative dose of 3 mcg/kg
IN route requires BASE CONTACT and approval for any patient < 5 years old, or any patient < 12 years old with indication other than isolated orthopedic injury or burns

Pediatric < 1 year: BASE CONTACT

MORPHINE:

Adult:
IV/IO/IM routes: 4 mg.
- Repeat doses of 2.0 mg, up to 10 mg.
- Additional cumulative dosing > 10 mg requires BASE CONTACT.
- Morphine may not be given IN as it is poorly absorbed

Pediatric (1-12 years): (Use length based tape for appropriate dosing)
IV/IO/IM routes: 0.1 mg/kg slowly.
- Maximum single dose is 5.0 mg.
- Additional cumulative dosing > 5 mg requires BASE CONTACT.
- Morphine may not be given IN as it is poorly absorbed

Pediatric < 1 year: BASE CONTACT

NOTE: IV route is preferred for more accurate titration. Continuous pulse oximetry is mandatory. Frequent evaluation of the patient’s vital signs is also indicated. Emergency resuscitation equipment and naloxone must be immediately available.

Protocol
Extremity Injuries
Adult Chest Pain
CHF/pulmonary Edema
Therapeutic Induced hypothermia
Abdominal Pain
Amputations
Burns
Bites/Stings
Snake Bites
Face and Neck Trauma
Chest Trauma
Abdominal Trauma
Spinal Trauma