***(Opioids)* FENTANYL and 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 with Targeted Temperature Management (TTM).

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.**
- Co-administration 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 doses may be rounded to nearest 25 mcg increment**
- **Initial dose in adults typically 100 mcg**
- **Strongly consider 1/2 typical dosing in elderly or frail patient**

Adult:

IV/IO/IM route: 1-2 mcg/kg.

- Dose may be repeated after 5 minutes and titrated to clinical effect to a maximum cumulative dose of 3 mcg/kg
- Additional dosing requires BASE CONTACT

IN route: 1-2 mcg/kg.

- Administer a maximum of 1 ml of fluid per nostril
- Dose may be repeated after 10 minutes after initial IN dose to a maximum cumulative dose of 3 mcg/kg. IV route is preferred for repeat dosing.
- Additional dosing requires BASE CONTACT

Pediatric (1-12 years):

IV/IO/IM route: 1-2 mcg/kg.

- Dose may be repeated after 5 minutes and titrated to clinical effect to a maximum cumulative dose of 3 mcg/kg.
- Additional dosing requires BASE CONTACT

IN route: 1-2 mcg/kg.

FENTANYL and MORPHINE *(Continued)*

FENTANYL:

- Administer a **maximum of 1 ml of fluid** per nostril
- Dose may be repeated after 10 minutes after initial IN dose to a maximum cumulative dose of 3 mcg/kg. IV route is preferred for repeat dosing.

Pediatric < 1 year: BASE CONTACT

MORPHINE:

Adult:

IV/IO/IM routes: 5-10 mg.

- Dose may be repeated after 10 minutes and titrated to clinical effect to a maximum cumulative dose of 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) and ≥ 10 kg:

IV/IO/IM routes: 0.1 mg/kg

- Dose may be repeated after 10 minutes and titrated to clinical effect up to maximum cumulative dose of 0.2 mg/kg.
- Additional cumulative dosing requires BASE CONTACT.

Pediatric < 1 year or < 10 kg:

IV/IO/IM routes: BASE CONTACT

Special Notes

IV route is preferred for all opioid administration because of more accurate titration and maximal clinical effect. IO/IN/IM are acceptable alternatives when IV access is not readily available. Repeat doses of IN Fentanyl can be given if IV access cannot be established. However greater volumes and repeat IN administration are associated with greater drug run off and may therefore be less effective. Continuous pulse oximetry monitoring 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
Therapeutic Induced hypothermia
Abdominal Pain
Amputations
Burns
Face and Neck Trauma
Chest Trauma
Abdominal Trauma
Spinal Trauma
Snake Bites
Bites/Stings