Fentanyl

McHenry Western Lake County EMS
Objectives

• During this session we will discuss:
• Class
• Actions
• Indications
• Contraindications
• Dosing/ Routes
• How supplied
• Precautions
• Side effects
Class

- Functional Class: Narcotic analgesic
- Chemical Class: Opiate, synthetic opioid
Action

- Inhibits ascending pain pathways in CNS, increases pain threshold, alters pain perception by binding to opiate receptors.
Action

- Short acting narcotic
  - Onset within minutes
  - Peaks within minutes
  - Duration will be 30-60 minutes
- Fast acting, short duration.
- More potent than Morphine.
Action

- Less histamine release than Morphine which resulted in vasodilation and tachycardia.
- Better for STEMI patients
- Can be reversed with Narcan if necessary.
Indications

- Treatment of acute pain
- Increasing in use for all types of pain control even non-specific abdominal pain due to its short duration (patient will unmask shortly after administration).
Contraindications

- Not opioid tolerant
- Intermittent pain
- Significant respiratory depression
- Hypotension
- Patients with acute or severe asthma
- Hypersensitivity to opiates
- Myastenia Gravis
- Pregnancy (category C)
Dosing and Route

• **FENTANYL**: 1 mcg/kg. (max 100 mcg) May repeat 0.5 mcg/kg in 5 min (max 50 mcg) IVP/IN/IM/IO.

• Elderly (>65) or debilitated: 0.5 mcg/kg (max 100 mcg) IVP/IN/IM/IO.

• Additional doses require OLMC. May repeat 0.5 mcg/kg q. 5 min up to a total dose of 300 mcg.
How supplied

• Supplied in ampules 100 mcg / 2ml
Precautions

• Over sedation
  – Use with caution in patients with COPD due to respiratory depression.
  – Alcohol and drugs of abuse – addictive CNS depressant effects.
  – Cardiac Hx- may produce bradycardia; should be used with caution in patients with bradyarythmias
  – Hepatic or renal Dx. Caution due to hepatic metabolism and renal excretion of Fentanyl.
Side effects

• **Common:**
  – Rash
  – Nausea/vomiting
  – Drowsiness
  – Dry mouth
  – Dizziness
  – Difficulty urinating
  – Constipation (prolonged use)
  – Constricted pupils
Side effects

• Uncommon:
  – Rigid chest wall
  – Respiratory depression
  – Confusion
  – Hives
  – Itching
  – Slowing or elevated HR
  – Abdominal Pain
  – Flushing
Protocol

• Pain management:
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  – Goal: Pain is tolerable upon ED arrival or all pain relieving options have been exhausted, pain medications are contraindicated (BP< 90, multiple trauma, AMS, patient is pregnant) or patient refuses the medication.
Remember!

- Assess and document response to interventions/medications including reassessment of VS after each intervention.
Case Study

• You are transporting an ACS patient to the ED. You have administered Nitro for pain X3. Your partner would like to administer Fentanyl. What must you consider before the administration?
Answer

• Pain persists after 3-5 minutes after the third nitro and the patient’s B/P is greater than 90.
Case study

- What would be the initial dose for the administration of Fentanyl be?
Answer

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Case Study

• You are treating a 13 y/o male with a FX to his arm after a skateboarding accident. What is the preferred route to administer your Fentanyl.
Answer

- By using the MAD Device and giving the medication Intra-Nasal