

Don't be Scared! Pain Control in Pediatric EMS: The Answer is Intranasal Fentanyl

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EMS Barriers to Pediatric Pain Management

- ▶ Concern about serious side effects
- ▶ Unfamiliarity with medication dosing
- ▶ Criticism by ED staff
- ▶ Short transport distance

Pediatric EMS Pain Management Barriers

- Anxiety/discomfort
- Inadequate education (didactic & clinical)
- Difficulty with IV access

Current State of Pain Control

- ▶ Pain is a common problem
- ▶ Severe pain is an emergency!
- ▶ Often not treated or under-treated
 - Utah 2008: Less than 5% of children with extremity fractures received prehospital pain meds



Current State of Pain Control

- ▶ EMS can provide medication sooner than hospitals
- ▶ After arrival at ED, it takes 45 – 60 minutes to receive pain mediation



An Argument for Opioids in the Prehospital Environment

- ▶ Safe and effective
- ▶ Multiple routes of administration
 - Fentanyl
 - transmucosal, transdermal, intravenous and **intranasal**
- ▶ Morphine
 - intravenous and intramuscular
- ▶ No statistical differences in ability to control pain



It's official, fentanyl is GOOD for kids!

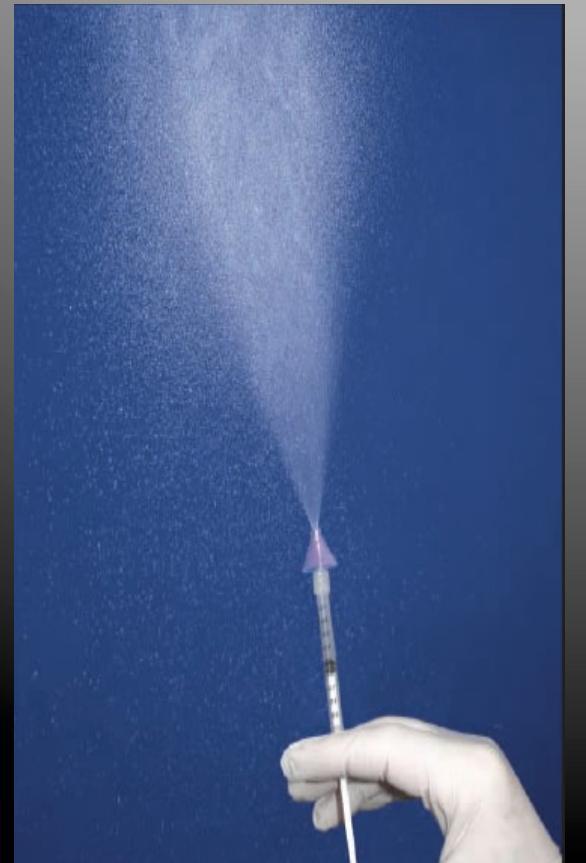
AN EVIDENCE-BASED GUIDELINE FOR PREHOSPITAL ANALGESIA IN TRAUMA

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Fentanyl

- ▶ 1 mcg/kg (round to nearest 5 mcg)
- ▶ Respiratory depression / hypotension is less common than with MS
- ▶ Works quickly (30 sec – 5 min)
- ▶ Administered IV, IN



Fentanyl IN

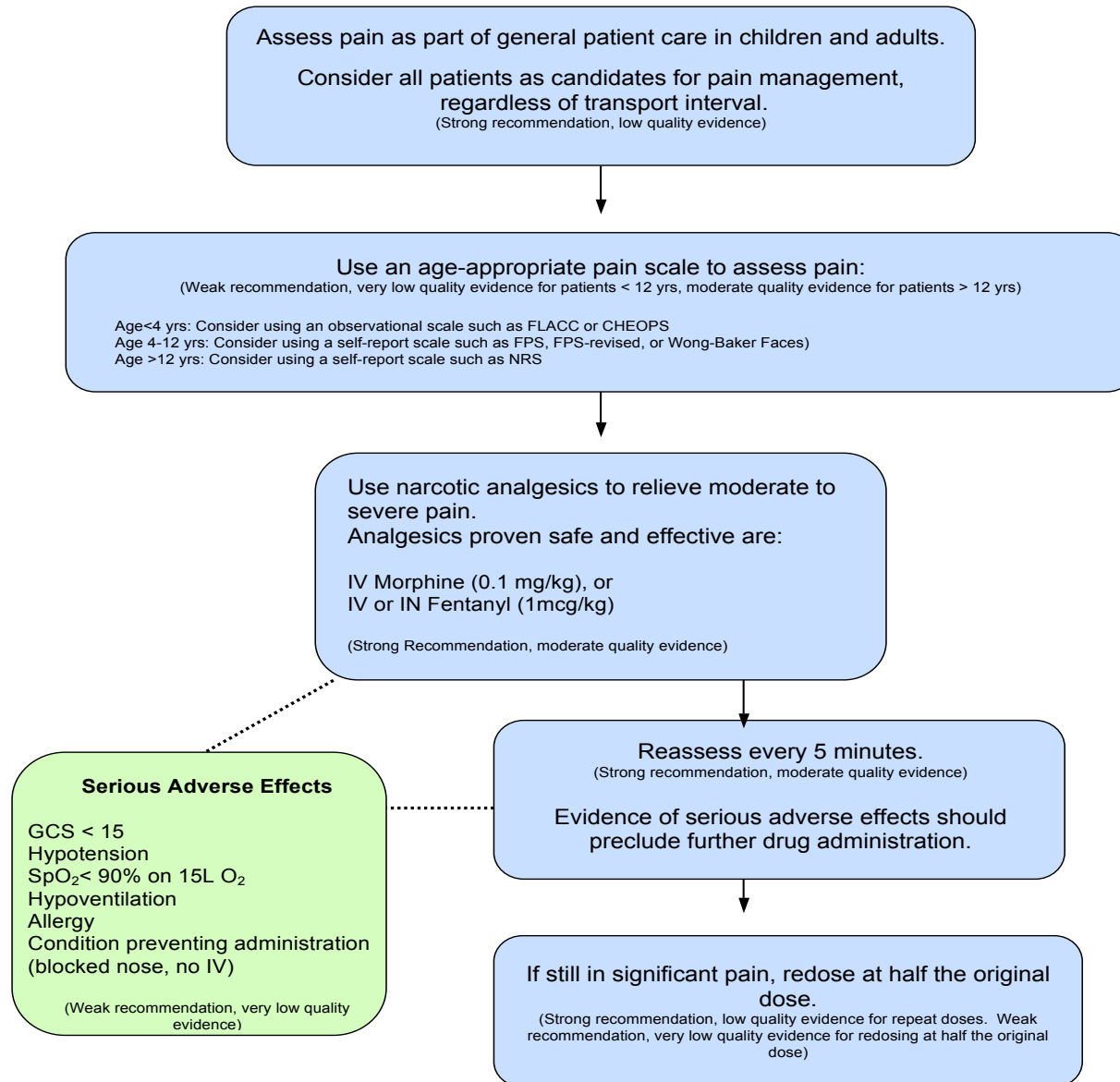
IN Fentanyl

- ▶ Many advantages:
 - More rapid and painless administration
 - Higher patient and provider satisfaction
 - Similar onset of action to IV
 - Serum levels after IN administration is approximately 70% of IV



Prehospital Protocol for the Management of Acute Traumatic Pain

This protocol excludes patients who are allergic to narcotic medications and/or who have altered mentation (GCS < 15 or mentation not appropriate for age).



Assessment

Assess pain as part of the general patient care in children and adults.

Consider all patients as candidates for pain management regardless of transport interval.

(strong recommendation, low quality evidence)

- ▶ **Assess pain as part of general patient care in children and adults.**
- ▶ **Consider all patients as candidates for pain management, regardless of transport interval.**

Pain Scoring Methods

Use age appropriate pain scale to assess pain

(Weak recommendation, very low quality evidence for patients < 12 years
moderate quality of evidence for patients >12 years)

- ▶ **Self-report**
- ▶ **Behavioral observation**
- ▶ **Physiologic measures**
- ▶ **Pain scores**

Faces Pain Scale–Revised

- ▶ Used in children 4–12 years
- ▶ Children point to face that represents their pain
- ▶ Compute using score 0–6



Pepe's Faces Can Be Painful Scale

- ▶ All children began crying
- ▶ They all got Fentanyl



Treatment

Use narcotic analgesics to relieve moderate to severe pain.

Analgesics proven safe and effective are:

IV Morphine (0.1 mg/kg), or

IV or **IN Fentanyl (1 mcg/kg)**

(Strong Recommendation, moderate quality evidence)

Reassess

Reassess every 5 minutes.

(Strong recommendation, moderate quality evidence)

Evidence of serious adverse effects should preclude further drug administration.

Redose

- ▶ If still in significant pain, redose at half the original dose.

- ▶ (Strong recommendation, low quality evidence for repeat doses.

Weak recommendation, very low quality evidence for redosing at half the original dose)

Summary

- ▶ Kids hurt too
 - ▶ You can get pain relief to them before anyone else
 - ▶ Don't be scared
 - ▶ Don't start an IV (unless you need an IV)
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- ▶ Intranasal fentanyl is the answer
 - ▶ Remember: It's good for children!