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OH, WHAT A RELIEF IT IS!
REVISITING PAIN MEDICATION USE IN EMS
Treating Pain

“Care more for the individual patient than for the special features of the disease”

- William Osler, 1899
Why Treat Pain?

- Safe relief of suffering is our job
  - “The safety issue should neither be forgotten nor unreasonably applied”
- Pain is physiologically bad
  - Anxiety
  - Immune system
  - Wound healing
Benefits of Treating Pain

- Patient satisfaction
  - McEachin et al, Prehosp Emerg Care 2004
- “Up-triage” on arrival to the ED
  - Vassiliadis et al, Emerg Med 2002
Why Treat Pain?
Pain Control

- Most common
  - Complaint
  - Reason for seeking medical attention
    - Up to 70%
  - Reason for dispatching an ambulance
Pain Control

The studies

- We are not as good as we could be
  - Berben et al, Injury 2011
  - McManus et al, Emerg Med Clin N Am 2005
  - Turturro, Prehosp Emerg Care 2002
  - Fullerton-Gleason et al, Prehosp Emerg Care 2002

- Oligo-evidence for oligo-analgesia
  - Still room for improvement
    - Steven Green, Ann Emerg Med 2012 (August)
Pain Control

- The studies
  - Still a number of modifiable barriers to appropriate pain management in the field
    - Walsh et al, Prehosp Emerg Care 2013
Pain Myths

• “It can wait”
  - No!
    - Waiting until the patient gets to the ED can result in a 2 hour delay in treatment
      - And that is IF the ED has its act together
        - Abbuhl et al, Prehosp Emerg Care 2003
    - Higher overall doses when started in the field
      - Vassiliadis et al, Emerg Med 2002
Pain Myths

- It isn’t safe
  - Side effects (hypotension, respiratory depression)
    - It is!
      - Barber et al, Pediatr Emerg Care 2004
      - Kanowitz et al, Prehosp Emerg Care 2006
      - Krauss et al, Acad Emerg Med 2007
Barriers

- Paramedics perception of pain
  - We underestimate pain
    - Turturro et al, Prehosp Emerg Care 2002
    - Walsh et al, Prehosp Emerg Care 2013
  - Perception of distress
    - Tachycardia?
      - Vital signs unreliable in estimating pain severity
Pain Management

- Masking symptoms
  - Can’t evaluate
    - Not true!
      - Alonso-Serra et al, Prehosp Care 2003
      - Ranji et al, JAMA 2006
  - Can’t consent
    - They can!
      - Gabbay et al, Prehosp Emerg Care 2001
  - ED will get mad
Pain Management

- Abdominal pain?
  - Yes!
    - Thomas et al, J Am Coll Surg 2003

- Trauma patients?
  - Yes!
    - Soriya et al, J Trauma 2012
Pain Management

- Be careful
  - Elderly
    - But still give it
  - Altered
    - Drugs/alcohol
    - Trauma
    - Other
Options

- IV
  - Fentanyl
    - 1-3 ug/kg
    - Typical dose 100 ug
  - Morphine
    - 0.1 mg/kg
    - Typical dose 5-10 mg
  - Hydromorphone
    - 0.015 mg/kg
    - Typical dose 1-2 mg
Options

- **Intranasal**
  - **Fentanyl**
    - 2-4 mcg/kg
    - Max is 1 cc/nostril
      - Concentration is 50 mcg/cc
  - **Midazolam**
    - 0.2 – 0.4 mg/kg
    - Concentration is 5mg/cc

- **Rule of thumb, double the dose for IN**
Options

- Non-pharmacologic
  - Splinting
  - Bandages
  - Ice
  - Position of comfort
  - Get rid of back boards!
Techniques

- Pain scales
  - Silka et al, Acad Emerg Med 2004

- Standard protocols
  - Standing orders
    - Fullerton-Gleason et al, Prehosp Emerg Care 2002

- Trauma training
  - Bowman et al, J Trauma 2012

- CMS mandates?
Diversion

- Significant issue in all areas of medicine
- Have a clear process of how you handle narcotics
  - Usage tracking
  - Wasting
Drug Seeking?

- Narcotic seeking
  - Differentiating acute from chronic pain
  - Overly concerned with “drug-seeking”
    - Even in pediatric patients
      - Hennes et al, Prehosp Emerg Care 2005

- Addiction
  - Big issue nationally
    - Not in the back of an ambulance
Summary

- Pain management is important
- Still significant barriers
- Make it the culture
  - It will become the norm
- More attention in this area will result in better care
- At the end of the day....