Pediatric Pain Management

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Objectives

- At the end of this session, the learners will be able to:
  - Identify the appropriate circumstances for treating the injured child in pain
  - Recall commonly used pain medications with pediatric specific doses and routes
  - Explain some non-pharmacological adjuncts that can be used for the injured child in pain

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Children and pain

- Administration of analgesia in children lags behind adults
- Youngest children at risk of receiving inadequate analgesia
- Myth that children experience pain differently from adults
- Inadequate pain control has negative implications for children

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Children and pain

- Pain is underestimated because of a lack of assessment tools
- Pain is often undermedicated:
  - Fears of oversedation and respiratory depression
  - Fear of addiction
  - Unfamiliarity of use of analgesics in children

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How do I evaluate a child in pain?

- Children <8 have limited cognitive ability to understand instructions and to articulate descriptions of their pain
- It's hard to differentiate between pain and anxiety/fear

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How do I evaluate a child in pain?

- Look at the child's demeanor
- HR and RR will increase with pain
  - Unfortunately anxiety, shock and other things do this too
- Multiple pain scales exist

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How much does the child weigh?

- Often the parent or caregiver has an idea of weight – from a recent doctor appointment or sports team evaluation
- Broselow Pediatric Emergency Tape

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Access issues

- IV access can often be challenging in children
- What are other options?
  - IM
  - IO
  - Intranasal

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What meds can I use in kids?

- Acetaminophen
  - 15mg/kg po/pr
- Ibuprofen
  - 10mg/kg po

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What meds can I use in kids?

- Morphine sulfate
  - Opioid analgesic
  - Causes histamine release which can produce itching, bronchospasm, hypotension
  - Reversed by naloxone
  - IM/IV
  - 0.1mg/kg (max to adult protocol dose)

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What meds can I use in kids?

- Fentanyl
  - Opioid analgesic
  - Less histamine release than morphine
  - More rapid onset than morphine
  - Less respiratory depression
  - Reversed by naloxone
  - IM/IV
  - Some EDs are administering it intranasally
  - 1 mcg/kg (max to adult protocol dose)

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What meds can I use in kids?

- Nalbuphine
  - Narcotic analgesic, opioid partial agonist
  - IM/IV
  - 0.1mg/kg (max dose 20 mg)

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What meds can I use in kids?

- Nitrous oxide
  - Sedative/analgesic
  - Self administered inhalation
  - 50/50 N_2O/O_2 mixture
  - Onset of action 3-5 minutes, duration 3-5 minutes
  - Can lead to overdistention of gut or middle ear
  - Do not use for pneumothorax/bowel obstruction

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What meds can I use in kids?

- Ketorolac
  - NSAID
  - IM/IV
  - 0.5mg/kg (max dose 15mg IV, 30mg IM)

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What else can I use besides medications?

- Parental presence
  - If a parent or guardian can ride with the child, they can help soothe their child
- Diversion/distraction techniques
  - Calm, soothing voice
  - Talk about favorite sport, favorite princess, Santa Claus, Spongebob, Nemo etc…

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What else can I use besides medications?

- Immobilization of fractures
- Elevation of extremities
- Ice packs
- Padding of immobilization devices
- Dressing of wounds

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Is this really part of my job?

- Position Paper, National Association of EMS Physicians
- "Prehospital Pain Management". Prehospital Emergency Care; 2003: 482-488.
- Recommendation: Prehospital protocols should mandate assessment and documentation of pain severity with potentially painful injuries and illnesses, as well as reassessment and documentation of the level of pain after any given intervention.

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Other concerns

- Receiving ED staff will give you grief for medicating the patient
  - Remember, this need to address pain is UNIVERSAL
- Issues with Med Command
- Issues with restocking medications if they are given

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Cases…

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QUESTIONS???

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Thank you!

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