When Owies Need More than a Band-aid…

Managing Pain in the Emergency Department

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Acknowledgements

Adopted for:
Canadian Association of Paediatric Health Centres
Pain Community of Practice
by
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Learning Goals

• Explore:
  – Pain intervention and assessment principles
  – Acute pain assessment tools
  – Case studies of modalities for addressing pain issues in various presentations
Pain Intervention and Assessment Principles
# Pain Prevention Myths and Facts

<table>
<thead>
<tr>
<th>Myth</th>
<th>Fact</th>
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<tbody>
<tr>
<td>Children do not feel pain like adults</td>
<td>Pain is under medicated</td>
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<tr>
<td>Pain management clouds symptoms</td>
<td>Pain medication does not mask signs and symptoms of serious surgical conditions</td>
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<tr>
<td>Pain medication prevents adequate assessment and mask serious diagnosis's</td>
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<tr>
<td>Respiratory distress</td>
<td>Medication given at doses to control pain are effective at relieving pain and do not compromise respiratory function</td>
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<tr>
<td>Sedation</td>
<td>Many analgesic medications are available that are effective and non-sedating</td>
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<tr>
<td>Addiction</td>
<td>No evidence that opioids analgesic have an addictive properties in children</td>
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Protocols and Education

• Allow for early intervention of pain
• Effective pain management depends on a continual reassessment of pain severity
  – Treat pain as the 5\textsuperscript{th} vital sign!
• Anticipate minimizing pain and anxiety during procedures
• Teaching
  – Use of OTC medications
  – Adequate dosing
  – Consider non-opioid options
Pain and Anxiety Management

- Vital to take an active role in addressing these issues
- Analgesics are underutilized in many settings
- Many adults underestimate pain in children
- Inadequate control has negative short and long-term consequences for children
  - For example:
    - Caregiver distress (short-term)
    - Heightened response to subsequent pain stimuli (short-term)
    - Needle phobia as adults (long-term)
Factors Affecting Selection of Appropriate Pain and Anxiety Control

- Urgency of procedure
- Necessity of analgesia
- Requirement for anxiolytic
- Duration of procedures
- Medical status of the child
Pain Management in the ER

• Variety of techniques available for various age groups and various presentations.
• Pain assessment should:
  – Begin with EMS;
  – Continue at triage;
  – Continually be reassessed during the ED; and
  – Advice provided at discharge.
Considerations for Pain Management in the Community

- Pain management education should be provided for parents at discharge
- The majority of kids with injuries (e.g. fractures) have pain at discharge
- We know that therapies (e.g. ibuprofen) are just as effective as opioids
- Parents can try over the counter medications at home and if pain is more severe they should seek the advice of a healthcare professional
Acute Pain Assessment Tools
# Pain Rating Scales: Neonates, infants

<table>
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<tr>
<th>Tool</th>
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| **PIPP**  
(Premature Infant Pain Profile) | Full and preterm neonates | Bio-behavioural observational tool for acute and procedural pain | Observe infant as indicated, and note score | Sum all of categories will give score out of maximum 21  
Cut-off:  
0 - 6 = mild pain  
7 - 13 = moderate  
13 - 21 = severe pain |
| **NIPS**  
(Neonatal Infant Pain Scale) | Birth - 1 year old  
Full and preterm infants | Behavioral scale that was adapted from the CHEOPS scale and uses the behaviors that nurses have described as being indicative of infant pain or distress | Infants should be observed for one minute in order to fully assess each indicator. | Each behavioral indicator is scored with 0 or 1 except "cry", which has three possible descriptors therefore, being scored with a 0, 1 or 2.  
Total pain scores range from 0-7.  
Cut-off:  
0 - 2 = mild to no pain  
3 - 4 = mild to moderate pain  
> 4 = severe pain |
## Pain Rating Scales:
Infants, toddlers, preschool, school-aged children

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<tr>
<td>FLACC (face, legs, activity,</td>
<td>Self – report – Infants, toddlers,</td>
<td>Behavioural observational tool for acute pain</td>
<td>Observe infant/child, and note score for each category</td>
<td>Sum of all categories will give score out of</td>
</tr>
<tr>
<td>crying and consolability)</td>
<td>preschool children</td>
<td></td>
<td></td>
<td>maximum 10</td>
</tr>
<tr>
<td></td>
<td>Observational – English &amp; French – 2</td>
<td>Need to understand the concepts of classification &amp; seriation. Need to have</td>
<td></td>
<td>Cut-off:</td>
</tr>
<tr>
<td></td>
<td>months to 7 years</td>
<td>sufficient language comprehension &amp; production, &amp; understand emotional states.</td>
<td></td>
<td>0 - 3 = mild pain</td>
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<tr>
<td></td>
<td>May also be useful for cognitively</td>
<td></td>
<td></td>
<td>4 - 6 = moderate pain</td>
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<tr>
<td></td>
<td>impaired children &amp; adolescents</td>
<td></td>
<td></td>
<td>7 + = severe pain</td>
</tr>
<tr>
<td>The FACES Pain Scale —</td>
<td>English &amp; French – 4 and older</td>
<td>Self-report tool which is useful when assessing procedural, acute and</td>
<td>Ask the child to indicate which face indicates how much hurt or pain they</td>
<td>Score the chosen face 0, 2, 4, 6, 8, 10</td>
</tr>
<tr>
<td>Revised (FPS-R)</td>
<td></td>
<td>chronic pain.</td>
<td>are feeling. Do not use words like “happy” and “sad”. This scale is</td>
<td>counting left to right 0 = no pain</td>
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<tr>
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<td></td>
<td></td>
<td>intended to measure how children feel inside, not how their face looks</td>
<td>10 = very much pain.</td>
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<td>Cut-off scores:</td>
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# Pain Rating Scales: School-aged children

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<tr>
<td>VAS</td>
<td>7 and up</td>
<td>A simple measure for assessing pain intensity</td>
<td>Make a mark on the line to show [how much pain you have right now] [how much it hurt when....]</td>
<td>None. The closer the line is to the end of the scale is an indication of greater pain.</td>
</tr>
<tr>
<td>NRS</td>
<td>7 and up</td>
<td>Self-report tool that measures the patients pain intensity</td>
<td>The NRS is ideally administered by showing the patient a printed number line the first time it is given (showing the numbers 0 through 10 and anchor words outside either end of the line). Giving the scale in printed form at least the first time has been shown to reduce the frequency of fractional scores (e.g., 4½/10) and the frequency of out of range scores (e.g., 150/10).</td>
<td>Unfortunately no evidence is available yet about the best upper anchor (e.g. worst pain) to use with children</td>
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<td>Body Map</td>
<td>8 and up</td>
<td>Image of the front and back of the body, with different areas defined by lines to mark pain location</td>
<td>21 areas are identified on the map.</td>
<td>Any mark in an area results in a score (yes or 1) for that area.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ask the child ‘Where does it hurt?’ and have them mark the locations on the map.</td>
<td>Any area left blank gets a score of no or 0.</td>
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<td></td>
<td>Laterality is ignored: for example, a mark on the left foot, the right foot or both feet all score the same (yes for foot).</td>
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<tr>
<td></td>
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<td>Investigators can score the map more finely if desired, or add demarcations or enlargements of areas of interest. This system is the suggested minimum.</td>
</tr>
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Can be used with younger children with adult assistance, although this may bias their answer.
Other domains of pain assessment

• Important to consider:
  – Pain location
  – Sensory qualities
  – Temporal aspects
  – Social and physical context in which the pain occurs
  – Functional interference
Other domains of pain assessment, continued…

Beyond PQRST …

Interference by pain with:

- Movement
- Sleep
- Mood
- Family
- School

Interference scales
Case Studies
Case Study 1: Infant
“My baby is not acting right…”

- Parents present to the triage desk with a 7 day old who is pink but extremities are mottled.
- Parents state baby has fed poorly in the last 12 hours and is lethargic.
- With this history what can we anticipate will be required for this baby?
  - The baby will likely need a full septic work up including IV start, urethral catheterization, and LP
  - What pain interventions can we consider?
Sucrose

- Strongest effect in newborns
- Effect decreases gradually over first 6 weeks of life
- Decreases response to noxious stimuli
- May be used in conjunction with a pacifier
- Alternatives:
  - Skin to skin contact and breastfeeding
Local Anesthetics

- EMLA
- Maxilene
- Subcutaneous Lidocaine
- Pain Ease Spray
  - IV starts
  - Lumbar Punctures
  - Intramuscular Injections
Case Study 2: Toddler

“Help me… My baby is bleeding!”

• A frantic mother with her toddler present to the emergency department because they were running in the house. He fell and hit his head on the table.

• He has a 5 cm laceration to his scalp. There is a blood soaked dressing that was reinforced at triage.

• With this history what can we anticipate will be required for this toddler?
  – Stitch's, sutures
  – What pain interventions can we consider?
LET

- Lidocaine, Epinephrine and
- Tetracaine
- Gel for lacerations
- Provides analgesia to wound edges
Non-pharmacological interventions

- These interventions can be used in conjunction with pharmacological methods:
  - Music therapy
  - Distraction techniques
  - Art therapy
  - Allied healthcare processionals:
    - Child Life specialists
    - Therapeutic Clowns
Case Study 3: Preschooler
“The cry that gets parents out of bed…”

• A mother comes in to the emergency department with her preschooler. She states he woke up screaming and rubbing his ear complaining it hurts. There are no beds available for assessment.

• As a triage nurse what options are available to you?
  – Antibiotics
  – What pain interventions can we consider?
Pharmacological Agents

- Antibiotics do not address pain
- Over the counter medication can be given:
  - Ibuprofen
  - Acetaminophen
  - Every 6-8 hours as needed
Case Study 4: Adolescent

“Your daughter was just brought to the ER…

- The call that every parent dreads.
- A 12 year old girl is brought to the ER by her teacher after she fell at the local ski hill. She has an obvious deformity to her right forearm.
- With this history what can we anticipate will be required for this young girl?
  - Realignment of fracture (closed reduction)
  - What pain interventions can we consider?
Pharmacological Agents

• **Opioids** (best option for fracture related pain)
  – Morphine
  – Fentanyl

• **Non-opioids** (on discharge)
  – Acetaminophen
  – Ibuprofen
Case study 5: Teen

“It hurts…."

- A 14 year old boy present to the emergency department with his parents.
- He is complaining of abdominal pain, nausea and walks hunched over clutching his abdomen.
  - Appendectomy, antibiotics
  - What pain interventions can we consider?
Pharmacological Agents

• Opioids (do not mask signs and symptoms of appendicitis)
  – Morphine
  – Fentanyl

• Non-opioids (on discharge)
  – Acetaminophen
  – Ibuprofen
References


11. UAH Emergency Department Policy and Procedures (Work in Progress) *Sucrose Administration Policy and Procedure.*