PEDIATRIC PAIN: Treatment Considerations, Q&As

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Common Challenges in Pediatric Pain
- Myth: children do not feel pain as their nervous system is not developed
- Myth: Let’s get it over with; you won’t remember, he’s scared
- Failure to anticipate pain. (e.g. urethral caths, NG tube, labwork)
- Failure to assess or difficult in assessing pain in very young
- Fear of masking signs of a more serious etiology. No adverse outcome or delay in diagnosis attributed to administration of narcotic analgesia in acute abdominal pain
- Fear of adverse events & overdose (sedation, respiratory depression)
- Tendency to underuse
- Lack of pharmacology understanding of toxicity, timing, without dose calculation
- Transitioning: maintaining pain control from Recovery to Ward to Home

Pain Assessment in Pediatrics
- Documenting of pain score assoc. with Analgesic use & pain
- Self-report scales: 0-10 Numerical rating, Faces Pain Scale-Revised
- Observational scales change from usual in these cues:
  - Vocal: crying, screaming, yelling, moaning, whimpering
  - Social: quietness, irritability, difficult to converse
  - Facial: furrowed brow, grimace, clenched teeth, tightly clisstropped
  - Activity: less movement, agitation, guarding of a body part
  - Physical: pallor, sweat, gasping/breathing change, tenses closed
  - Other: changes in eating & sleeping patterns
- See also FLACC scale: Face/Legs/Arousal/Cry/Consolability

Non-pharmacological Tips: (Coping & pain threshold)
- Neonate/infant: bundle, kangaroo care, breast-feed, sucrose & sucking
- Toddler: distraction; Old child: preparation, explanation, distraction, asist parent on how to be calm; non-procedural/talk most helpful.
- Sucrose
  - Cough: best for single painful procedure (infant ≤18 months)
  - + distraction. (Administer ≤2 minutes prior. 2 ml of 25% sucrose solution ≤<6yrs from spoon, by oral syringed/dropper into mouth; or allow infant to suck from pacifier/breast. OK if NPO)
  - Distraction/psychological techniques: Cough
  - Other very useful if age appropriate
  - Toys, books, bubbles, music, humour, TV, imagery, breathing, blowing pinwheel
  - Parent’s presence, breastfeeding; position for Cough
  - Trick
  - Pressure on injured or injection sites (e.g. immunizations) 10 seconds prior
  - Cold/hot compresses (e.g. cold for sprains, warm for carache)
  - Splinting, elevation, bandaging or dressing (immediate area & ≤ pain)
  - Information giving: brief description, what to expect for each step, also will help
  - NEVER, NEVER use the word needle

Specific Therapeutic Considerations

Abdominal  
- pain, consider age, site
- Cold compress does not delay surgical decision appendicitis
- Relaxated patient = better exam & better evaluation

Burns, Minor:  
- cold compress 20-30 min before applying a dressing
- Give oral analgesic (ibuprofen or acetaminophen)

Chronic Daily Headache
- e.g. tension-type or transformed migraine, see migraine criteria
- Liposomal tetracaine (e.g. Lipocaine) may work
- Consider analgesic rebound/reoveruse if use >4/week

Emergency trauma (e.g. Musculoskeletal)

Earache
- avoid masking signs of a more serious etiology
- Pain: Increased risk of adverse events e.g. renal & potential for errors
- Failure to anticipate pain. (e.g. urethral caths, NG tube, labwork)
- Fear of masking signs of a more serious etiology
- No adverse outcome or delay in diagnosis attributed to administration of narcotic analgesia in acute abdominal pain

Post-op:
- Consider analgesic rebound/reoveruse if use >4/week

Route of administration: generally use IV, PO; but PR rarely
- Avoid the IM route
- Avoid a PA pump option in case of anesthetic/medication refusal
- Pain:
  - Epidural: if AEs systemic route; psychological prep important
  - Dosing: by weight (mg/kg) or V/SA and by the hour!!!

Avoid if addic typical amniothecin with ibuprofen appropriate
- Not recommended by the Canadian Pediatric Society
- Increased risk of adverse events, e.g. renal & potential for errors
- Monotherapy sufficient & preferred for vast majority. If not effective, may switch to or add the other. Mechanisms differ for pain; may give one round the clock, with other PRN
- Reassess if pain unresolved; combining both is an option for pain

Table: Pain Medication in Pediatrics - Overview (See also RxFiles pain related charts at www.RxFiles.ca)

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**Pain Scoring Scale**

**Face**

0-3: mild electric current penetrates skin more quickly; cream should be applied per 10 sq cm (approximate size of a Canadian "toonie") of skin and covered with an occlusive dressing for 45 to 60 minutes. The maximum application areas

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there was no evidence that breastfeeding had an effect on physiological responses. No studies included in this review provided any evidence regarding the effects of breastfeeding on pain in infants.


Wong T, Stang AS, Ganshorn H, et al. Combined and alternating paracetamol and ibuprofen therapy for febrile children. Cochrane Database of Systematic Reviews 2013, Issue 10. Art. No.: CD009572. DOI: 10.1002/14651858.CD009572.pub2. There is some evidence that both alternating and combined antipyretic therapy may be more effective at reducing temperatures than monotherapy alone. However, the evidence for improvements in measures of child discomfort remains inconclusive.

Yang YT, Chen B, Bennett CL. FDA Approval of Extended-Release Oxycodone for Children With Severe Pain. Pediatrics. 2016 May;137(5).

Zempsky WT, et al. Needle-free powder lidocaine delivery system provides rapid effective analgesia for venipuncture or cannulation pain in children randomized, double-blind Comparison of Venipuncture and Venous Cannulation Pain After Fast-Onset Needle-Free Powder Lidocaine or Placebo Treatment trial. Pediatrics. 2008 May;121(5):979-87. The needle-free powder lidocaine delivery system was well tolerated and produced significant analgesia within 1 to 3 minutes.