

Fast Fact and Concept #117: Pediatric pain assessment scales

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Neonates and infants do experience pain. In fact, research has shown that neonates may experience as much pain as older children and long-term consequences from exposure to repeated painful stimuli. Untreated pain leads to increased sensitivity to subsequent stimuli. Assessing pain in neonates and young children requires use of age appropriate scales. There is no empirical evidence demonstrating the superiority of one assessment tool, but research suggests that the same scale(s) should be used within an institution (www.childcancerpain.org).

Behavioral observational scales - The primary method of pain assessment for infants, children less than 3 yrs old, and developmentally disabled patients. Validated tools include:

CRIES: Assesses Crying, Oxygen requirement, Increased vital signs, facial Expression, Sleep. An observer provides a score of 0-2 for each parameter based on changes from baseline. For example, a grimace, the facial expression most often associated with pain, gains a score of 1 but if associated with a grunt will be scored a 2. The scale is useful for neonatal postoperative pain.

NIPS: Neonatal/Infants Pain Scale has been used mostly in infants less than 1 yr of age. Facial expression, cry, breathing pattern, arms, legs, and state of arousal are observed for 1 minute intervals before, during, and after a procedure and a numeric score is assigned to each. A score >3 indicates pain. www.anes.ucla.edu/pain

FLACC: Face, legs, activity, crying, consolability scale validated from 2 mo to 7 years. 0-10 scoring.

CHEOPS: Children's Hospital of Eastern Ontario. Intended for children 1-7 yrs old. Assesses cry, facial expression, verbalization, torso movement, if child touches affected site, and position of legs. A score ≥ 4 signifies pain. www.anes.ucla.edu/pain

Self report - Children 3 years of age and older can rank their pain using one of several validated scales including:

Wong-Baker Faces scale: 6 cartoon faces showing increasing degrees of distress. Face 0 signifies "no hurt" and face 5 the "worst hurt you can imagine"; the child chooses the face that best describes own pain at the time of assessment. www.childcancerpain.org; www.harcourthealthsciences.com/WOW/faces.html

Bieri-Modified: 6 cartoon faces starting from a neutral state and progressing to tears/crying. Scored 0-10 by the child Used for children >3 years.

Visual analogue scale: uses a 10 cm line with one end marked as no pain and the opposite end marked as the worst pain. The child is asked to make a mark on that line that is then measured in cm from the no pain end. www.helpforpain.com

References

Hockenberry M, Wilson D, Winkelstein M, Kline, N. Wong's Nursing Care of Infants and Children (7th edition). pgs. 1052-1053.

Berde CB, Sethna NF. Analgesics for the Treatment of Pain in Children. N Engl J Med 2002;347:1094-1101.

Zempsky WT, Schechter, NL. What's New in the Management of Pain in Children. Pediatrics in Review 2003;24:337-347.

Wong On Web <http://www.harcourthealthsciences.com/WOW/fyi03.html>

Merkel, S. I., Voepel-Lewis T, Shayevitz JR and Malviya S. "The FLACC: a behavioral scale for scoring postoperative pain in young children." Pediatr Nurs 21997; 3(3): 293-7.
Hicks, C. L., von Baeyer CL, Spafford PA, et al. "The Faces Pain Scale-Revised: toward a common metric in pediatric pain measurement." Pain. 2001; 93(2): 173-83.

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Purpose: Instructional Aid, Self-Study Guide, Teaching

Audience(s)

Training: Fellows, 1st/2nd Year Medical Students, 3rd/4th Year Medical Students, PGY1 (Interns), PGY2-6, Physicians in Practice

Specialty: Anesthesiology, Emergency Medicine, Family Medicine, General Internal Medicine, Geriatrics, Hematology/Oncology, Neurology, OB/GYN, Ophthalmology, Pulmonary/Critical Care, Pediatrics, Psychiatry, Surgery

Non-Physician: Nurses

ACGME Competencies: Medical Knowledge, Patient Care

Keyword(s): Pain assessment, Pediatric