

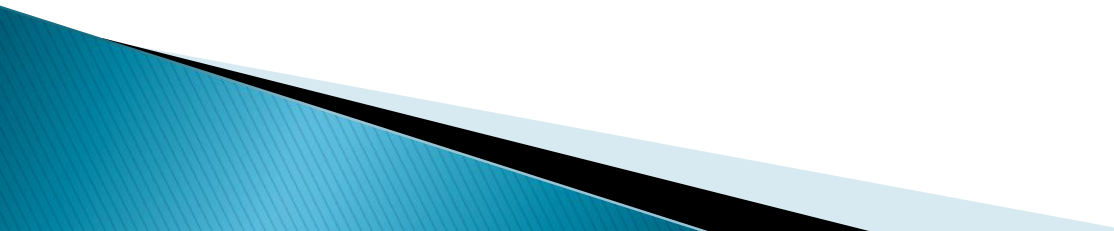


Paediatric Pain

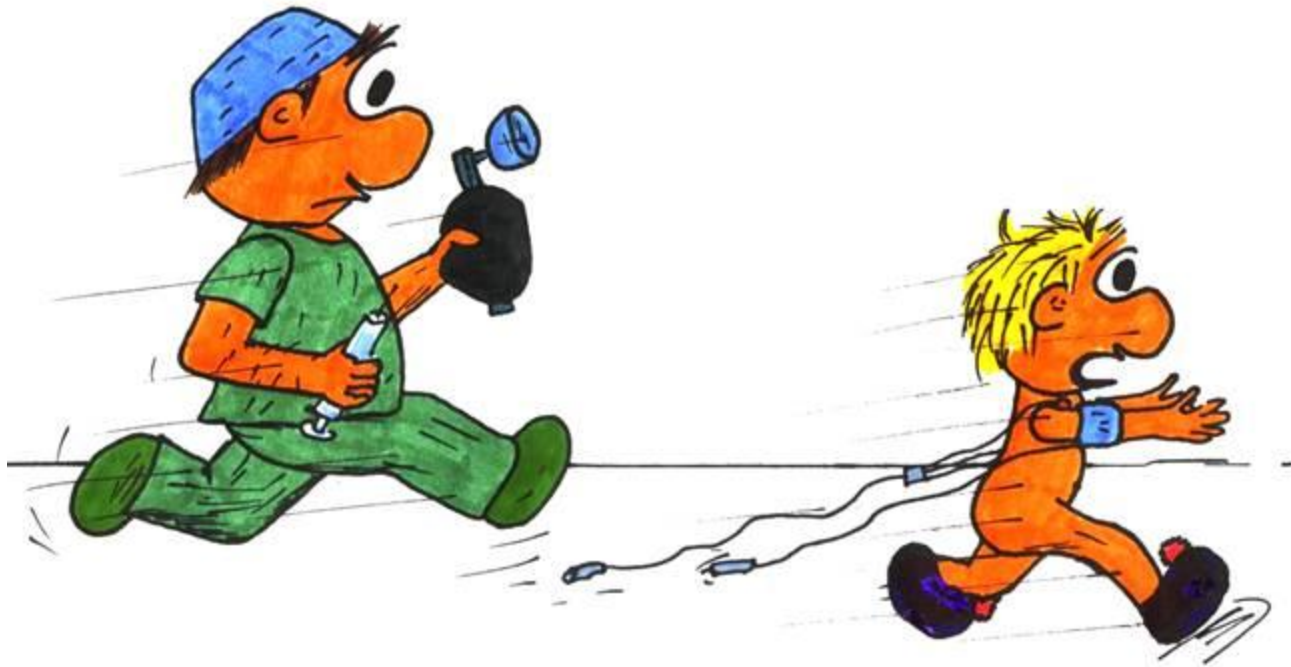
Assessment and Management
Dr James Keogh
Royal Alexandra Children's Hospital
Brighton

STAPG November 2012

Objectives

- ▶ Why
 - ▶ Pain assessment in children
 - ▶ Specific treatments
- 

Why?





NSF Children 2003

“Prevention, assessment and treatment of **pain** is improved with children as active partners in the process.”

- ▶ No comprehensive document for all aspects of pain management
- ▶ Should be peer reviewed, evidence based with specific guidelines

Pediatric Anesthesia

Volume 22 Supplement 1 July 2012

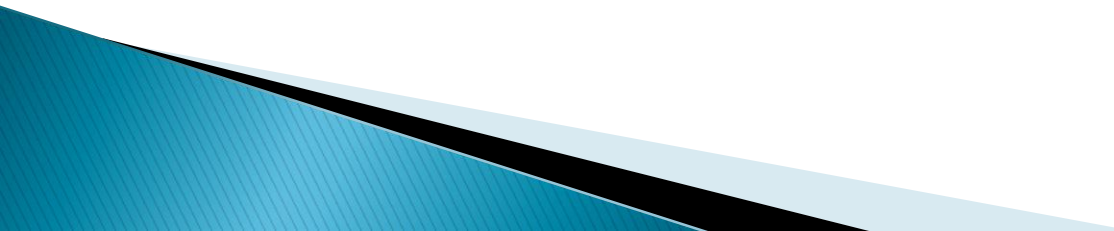
Good Practice in Postoperative and Procedural Pain Management 2nd Edition, 2012

A Guideline from the Association of Paediatric
Anaesthetists of Great Britain and Ireland

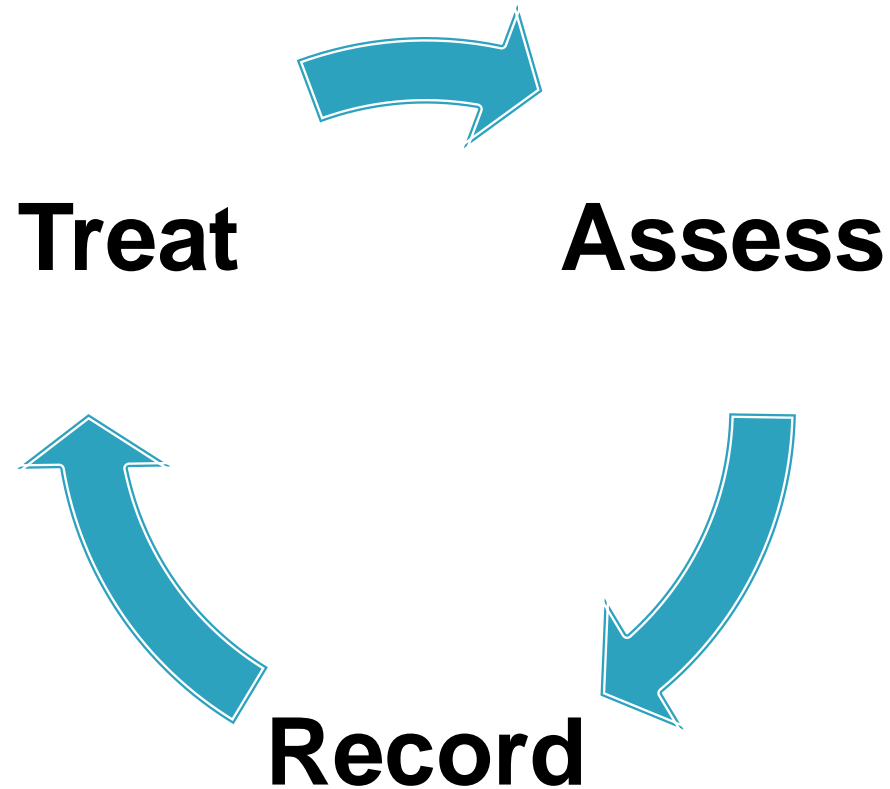


Endorsed by the British Pain Society, the Royal
College of Nursing and the Royal College of
Paediatrics and Child Health

Good Practice in Postoperative and Procedural Pain Management 2012

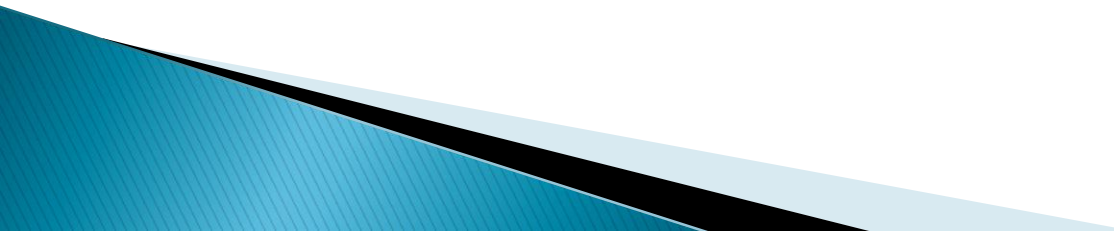
- ▶ Multidisciplinary guideline development group
 - ▶ SIGN methodology
 - ▶ Evidence-based recommendations
 - ▶ Good practice points
- 

Cycle of pain Management



Pain Assessment

- ▶ Fundamental
 - ▶ Adapted to the child

 - ▶ Child
 - ▶ Family
 - ▶ Carers
- 

improving practice:
improving care

CLINICAL PRACTICE GUIDELINES

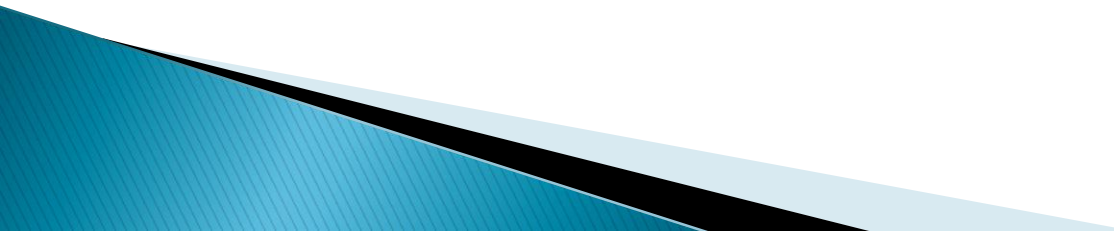
The recognition and assessment of acute pain in children

Update of full guideline

SEPTEMBER 2009



3 Approaches

- ▶ Self-report
 - ▶ Observational/Behavioural
 - ▶ Physiological
- 

Self-Report

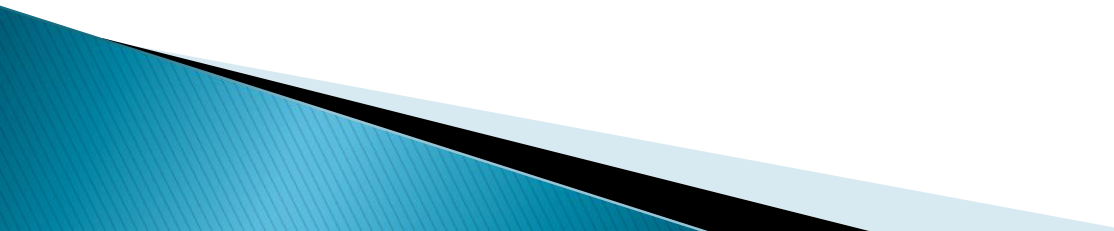
- ▶ Direct measure
- ▶ Requires advanced cognitive skills
- ▶ Not suitable <3-4 years

Wong-Baker FACES Pain Rating Scale



From Wong D.L., Hockenberry-Eaton M., Wilson D., Winkelstein M.L., Schwartz P.: Wong's Essentials of Pediatric Nursing, ed. 6, St. Louis, 2001, p. 1301. Copyrighted by Mosby, Inc. Reprinted by permission.

Observational / Behavioural

- ▶ Pain / Distress not easily separated
 - ▶ Suitable for neonates and infants
 - ▶ Used in combination with other tools
- 

FLACC scale

FLACC Behavioral Pain Assessment			
Categories	0	Scoring 1	2
Face	No particular expression or smile	Occasional grimace or frown, withdrawn, disinterested	Frequent to constant quivering chin, clenched jaw
Legs	Normal position or relaxed	Uneasy, restless, tense	Kicking, or legs drawn up
Activity	Lying quietly, normal position moves easily	Squirming, shifting back and forth, tense	Arched, rigid or jerking
Cry	No cry, (awake or asleep)	Moans or whimpers; occasional complaint	Crying steadily, screams or sobs, frequent complaints
Consolability	Content, relaxed	Reassured by occasional touching hugging or being talked to, distractable	Difficulty to console or comfort

Each of the five categories is scored from 0-2, resulting in a total score between 0 and 10.

The FLACC scale was developed by Sandra Mekel, MS, RN, Terri Voepel-Lewis, MS, RN, and Shobha Malviya, MD, at C. S. Mott Children's Hospital, University of Michigan Health System, Ann Arbor, MI.

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Physiological

- ▶ RR, HR and BP
- ▶ Unreliable
- ▶ Neonates, Infants and young children

Buttner W, Fincke W.

Analysis of behavioural and physiological parameters for the assessment of postoperative analgesic demand in newborns, infants and young children.

Paediatr Anaesth 2000; 10: 303–318





Medical Procedures

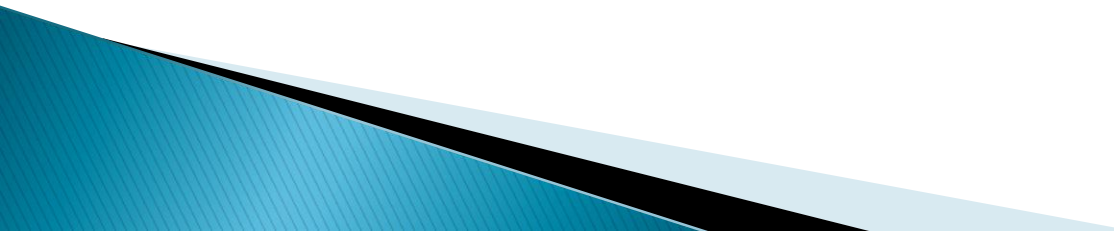
- ▶ Topical LA insufficient for Heel Lance
- ▶ Venepuncture Vs. Heel Lance
- ▶ I.M. Injections
- ▶ Breast feeding





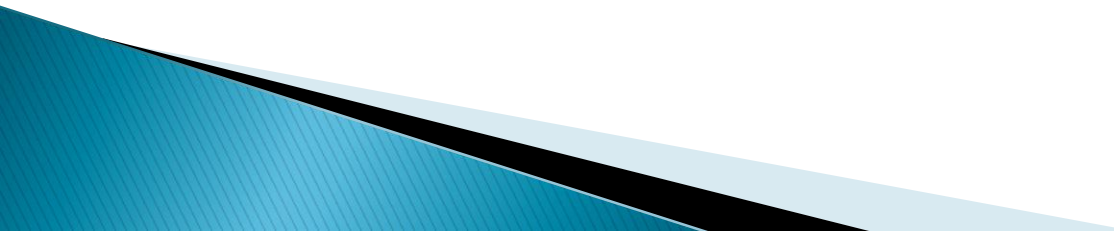
Tonsillectomy

- ▶ Tonsillitis/OSA
 - ▶ Significant levels of pain for 5–8 days
 - ▶ Standardised protocols

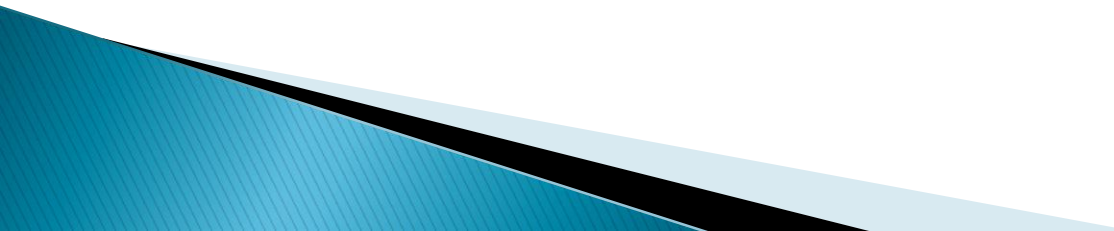
 - ▶ Opioids
 - ▶ Dexamethasone
 - ▶ Paracetamol + NSAIDs
- 

Circumcision

- ▶ Day-case
 - ▶ Significant post-op pain

 - ▶ Avoid Opioid-only
 - ▶ Caudal epidural
 - ▶ Dorsal nerve block
- 

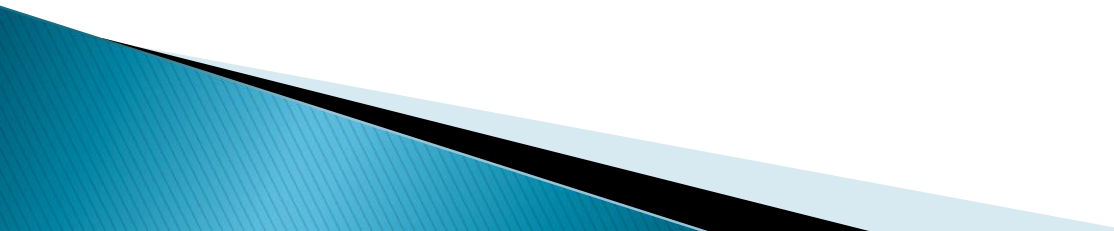
Inguinal Hernia Repair

- ▶ Caudal
 - ▶ Ilio-inguinal block
 - ▶ Paravertebral block
- 

Orthopaedic

- ▶ NSAIDs
 - Ibuprofen > 3 months
 - Diclofenac > 6 months
- ▶ Brachial plexus blocks
(Axillary, Interscalene, Supraclavicular)
- ▶ Peripheral nerve blocks
- ▶ Lumbar/Caudal epidural

In-Patient Analgesia

- ▶ Caudal additive drugs
 - ▶ Opioid infusions
 - ▶ Epidural infusions
- 

Neuaxial Additives

- ▶ S-Ketamine 0.25–0.5mgKg⁻¹
- ▶ Clonidine 1–2mcgsKg⁻¹

Opioid Infusions

- ▶ PCA

Morphine 20 mcgKg⁻¹ 5min lockout

Background 0–10mcgKg⁻¹hr⁻¹

- NCA

Morphine 20 mcgKg⁻¹ 20min lockout

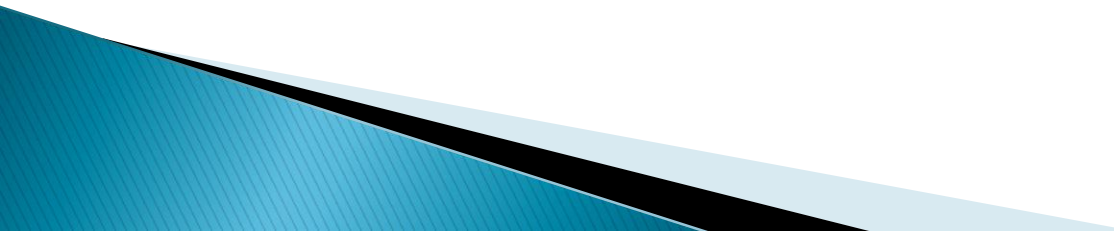
Background 0–20mcgKg⁻¹hr⁻¹

Epidural Infusions

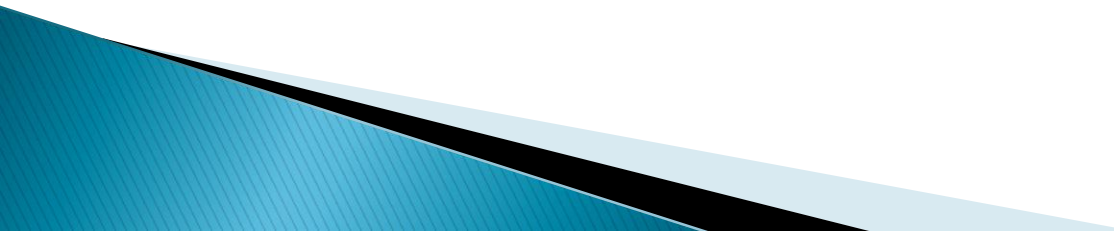
- ▶ Levobupivacaine 0.125%
- ▶ Levobupivacaine 0.1% + Fentanyl 2mcg/ml

0.1–0.3mls Kg⁻¹ hr⁻¹

Non-pharmacological

- ▶ Behavioural
 - ▶ Cognitive
 - ▶ Distraction
 - ▶ Hypnosis
- 

Summary

- ▶ Effective assessment is the cornerstone of pain management
 - ▶ Multimodal approach
 - ▶ LA
 - ▶ Non-pharmacological techniques
- 



Questions?

Thank You