

# Appendix N: Strategies Recommended for Infant and Children Pain (Acute) Management

STRATEGIES RECOMMENDED FOR INFANT AND CHILDREN PAIN (ACUTE) MANAGEMENT					
LEGEND: ✓ = recommended ⚠ = use with caution ? = effect unknown N/A = not applicable					
Pain in Infants					
TYPE OF PAIN MANAGEMENT	THERAPY	MINOR PROCEDURES	SURGICAL	COMMENTS	LEVEL OF EVIDENCE
Non-Pharmacological (Physical/Psychological)	Breastfeeding	✓	N/A	Newborn – 12 months	Ia
	Skin-to-skin care	✓	?	Most evidence for preterm infants	Ia
	Pacifier Sucking	✓	?	Most effective when combined with sweet solutions	Ia
	Swaddling	✓	?	Less effective than sucrose	Ia
	Positioning	⚠	?		Ib
	Music	⚠	?		Ia
Pharmacological	Sucrose	✓	?	Insufficient on its own for minor surgery (e.g., circumcision). Use in conjunction with other recommended interventions	Ia
	Opioids	?	✓	Conflicting evidence of background opioid infusions for acute minor procedural pain	Ib
	NSAIDS	?	?		IV
	Acetaminophen	?	?		IV
	Topical Anesthetics	?	N/A	Less effective than sucrose for infants	Ia

**STRATEGIES RECOMMENDED FOR INFANT AND CHILDREN PAIN (ACUTE) MANAGEMENT ...con't**

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**Pain in Children**

TYPE OF PAIN MANAGEMENT	THERAPY	MINOR PROCEDURES	SURGICAL	COMMENTS	LEVEL OF EVIDENCE
Non-Pharmacological (Physical/ Psychological)	Deep breathing	?	✓	For procedural pain – combined with distraction for younger children (e.g., blowing bubbles, pinwheels)	Ia
	Nurse-led distraction	✓	N/A	Reduces self-reported pain	Ia
	Child-led distraction	✓	N/A	Reduces self-reported pain	Ia
	Parent-led distraction		N/A		
	Vapocoolants	✓	N/A	Tolerated better in children over 3, mixed effectiveness for IV cannulation	Variable
	Information/preparation	✓	?	Effective in reducing observer-reported pain and heart rate in children	Ia
	Hypnosis	✓	N/A	Reduces self-reported pain/distress and behavioural distress	Ia
	Combined cognitive-behavioural interventions	✓	N/A	Reduces observer-reported distress and behavioural distress	Ia
	Needleless injection device (e.g., J-tip) for delivery of lidocaine	✓		Ideal when rapid local anesthesia is desired	Ia
*NB Most evidence relates to needle related pain					

**STRATEGIES RECOMMENDED FOR INFANT AND CHILDREN PAIN (ACUTE) MANAGEMENT ...con't**

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**Pain in Children**

TYPE OF PAIN MANAGEMENT	THERAPY	MINOR PROCEDURES	SURGICAL	COMMENTS	LEVEL OF EVIDENCE
Pharmacological	Opioids	✓	✓	Effective PCA prescriptions may include a low-dose background infusion  IM injections are distressing and less effective than IV infusions  Intranasal or oral administration of opioids may effective in the ED setting	Ila & Iib
	NSAIDS	✓	✓	Decrease opioid requirement after surgery	Ila
	Acetaminophen	✓	✓	Decrease opioid requirement after surgery	Ila
	Topical Anesthetics	✓	N/A	Effective for laceration repair, wound management  Amethocaine more effective than EMLA  Most effective for children older than 3 years	Ila
	Vapocoolant spray	✓	N/A	For IV cannulation in children between 6 and 12 years	Ib
	Anticonvulsants	N/A	?		IV
	Antidepressants	N/A	?		IV

(Cignaccio, et al., 2007; Chambers, Taddio, Uman, McMurtry, & Team (2009); Harrison, Bueno, Yamada, Adams-Webber, & Stevens, 2010; Harrison et al., 2010; Hatfield, Chang, Bittle, Deluca, & Polomano, 2011; Lander, Weltman, & So, 2006; Leef, 2006; Nilsson, 2008; Obeidat, Kahalaf, Callister, & Froelicher, 2009; Pillai-Riddell et al., 2011; Spence et al., 2010; Shah, Taddio, & Rieder, 2009; Stevens, Yamada, & Ohlsson, 2010; Stinson, Yamada, Dickson, Lamba, & Stevens, 2008; Taddio et al., 2009)

Developed by RNAO Expert Panel