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Question: Should breastfeeding before vaccine injections vs no treatment be used for reducing vaccine injection pain in children up to 2 years?

Settings: clinics

Bibliography: Achema 2011 (1), Sahebihagh 2011 (1)

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Breastfeeding before vaccine injections	No treatment	Relative (95% CI)	Absolute		
Distress Acute (measured with: validated tool (Neonatal Infant Pain Scale 0-7, Abbey Pain Scale 0-18, Pain Assessment in Advanced Dementia Scale 0-10) by researcher ¹ ; Better indicated by lower values)												
2	randomised trials ^{2,3}	serious ⁴	no serious inconsistency	no serious indirectness	serious ⁵	none	50	50	-	SMD 1.43 lower (2.14 to 0.72 lower)	⊕⊕○○ LOW	CRITICAL
Distress Acute + Recovery ⁶ (measured with: validated tool (cry duration) by researcher; Better indicated by lower values)												
1	randomised trials	no serious risk of bias ⁴	no serious inconsistency	no serious indirectness	serious ⁵	none	30	30	-	SMD 1.47 lower (2.05 to 0.9 lower) ⁶	⊕⊕⊕○ MODERATE	CRITICAL
Distress Recovery (measured with: validated tool (Neonatal Infant Pain Scale 0-7) by researcher; Better indicated by lower values)												
1	randomised trials	no serious risk of bias ⁴	no serious inconsistency	no serious indirectness	serious ⁷	none	30	30	-	SMD 0.13 lower (0.63 lower to 0.38 higher)	⊕⊕⊕○ MODERATE	CRITICAL
Safety, Procedure Outcomes, Use of Intervention, Parent Fear, Vaccine Compliance, Preference, Satisfaction (assessed with: no data were identified for these important outcomes)												
0	No evidence available					none	-	-	-	-		IMPORTANT
								0%		-		

¹ In one study (Achema 2011) it is unclear whether Abbey Pain Scale or Pain Assessment in Advanced Dementia Scale was used to report pain; data extracted from Table 6 in the study

² In one study (Sahebihagh 2011), infants were breastfed according to their appetite before vaccine injection and stopped 2 minutes before injection.

³ In one study (Achema 2011), infants were breastfed 60 minutes prior to vaccine injection.

⁴ Inconsistent blinding of outcome assessor; possible co-intervention in comparison group in one study (Achema 2011) - mothers were able to hold and cuddle their infants

⁵ Sample size was below the recommended optimum information size (OIS) of 400 for an effect size of 0.2

⁶ Data from 1 study (Sahebihagh 2011) included without standardization of scores to the same scale

⁷ Confidence interval crosses the line of nonsignificance and sample size was below the recommended optimum information size (OIS) of 400 for an effect size of 0.2