Author(s): VS/AT **Date:** 2015-03-26

Question: Should sweet-tasting solutions (sucrose, glucose) before vaccine injections and non nutritive sucking during vaccine injections vs sweet-tasting solutions or non nutritive sucking alone be used for reducing vaccine injection pain in children 0-2 years?

Settings: clinics

Bibliography: Morelius 2009 (3,4)

Quality assessment						No of patients		Effect				
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Sweet-tasting solutions (sucrose, glucose) before vaccine injections and non nutritive sucking during vaccine injections	Sweet-tasting solutions or non nutritive sucking alone	Relative (95% CI)	Absolute	Quality	Importance
istress	Acute + Red	covery ^{1,2} (measured with:	validated tool	s (cry durati	on) by researche	er; Better indicated by Id	ower values)				
		very serious ^{4,5}	no serious inconsistency	no serious indirectness	serious ⁶	none	29	45	-	SMD 0.32 lower (0.79 lower to 0.15 higher) ^{1,2}	⊕OOO VERY LOW	CRITICAL
istress	Acute + Red	covery (ye	s/no) ^{1,2} (assess	ed with: valida	ated tool (cry	, yes/no) by rese	earcher)					
	randomised trials		no serious inconsistency	no serious indirectness	serious ⁶	none	23/29 (79.3%)	36/45 (80%)	RR 0.99 (0.78 to 1.26) ^{1,2}	8 fewer per 1000 (from 176 fewer to 208 more)	⊕OOO VERY LOW	CRITICAL
arent F	ear (Acute) ^{1,}	⁷ (measur	ed with: validate	ed tool (Visual	Analog Sca	le 0-10) ; Better i	ndicated by lower value	es)				
		very serious ^{4,5}	no serious inconsistency	no serious indirectness	serious ⁶	none	29	45	-	MD 0.11 higher (0.36 lower to 0.58 higher) ^{1,7}	⊕OOO VERY LOW	IMPORTAN

0	No evidence		none	=	-	-	-	IMPORTANT
	available							
					0%		-	

¹ The sample size for the glucose and pacifier group was divided by 2.

² Treatment fidelity with non nutritive sucking was not assessed in included study

³ In study by Morelius (2009), analysis (3) compared glucose and pacifier to glucose and analysis (4) compared glucose and pacifier to pacifier. All of the infants were held.

⁴ In 1 study (Morelius 2009), randomization of infants to the groups was based on whether or not they used a pacifier

⁵ Immunizer not blinded; parent, researcher and outcome assessor not consistently blinded

⁶ Confidence intervals cross the line of nonsignificance and the sample size was below the recommended optimum information size (OIS) of 400 for an effect size of 0.2

⁷ Additional information and data provided by author (Morelius 2009)