Author(s): AT/VS **Date**: 2015-03-05

Question: Should injecting the most painful vaccine last vs first be used for reducing vaccine injection pain in people of all ages?

Settings: hospital and pediatric clinic Bibliography: Ipp 2009, Ravikiran 2011

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Injecting the most painful vaccine last	First	Relative (95% CI)	Absolute		
Distress Acute ¹ (measured with: validated tool (Modified Behavioral Pain Scale 0-10, Neonatal Infant Pain Scale 0-7, Visual Analog Scale 0-10) by researchers and parents; Better indicated by lower values)												
			no serious inconsistency	no serious indirectness	serious ³	none	98	98	-	SMD 0.69 lower (0.98 to 0.4 lower) ¹	⊕⊕⊕O MODERATE	CRITICAL
Pain (assessed with: no data were identified for this critically important outcome)												
_	No evidence available					none	-	-	-	-		CRITICAL
Procedure Outcomes, Vaccine Compliance, Preference, Satisfaction (assessed with: no data were identified for these important outcomes)												
-	No evidence available					none	-	- 0%	-	-		IMPORTANT

In 1 study (Ipp 2009), a sample size of 60 per group was used for summary of effect
Discrepancies between trial registration protocol and manuscript

³ Sample size was below the recommended optimum information size (OIS) of 400 for an effect size of 0.2