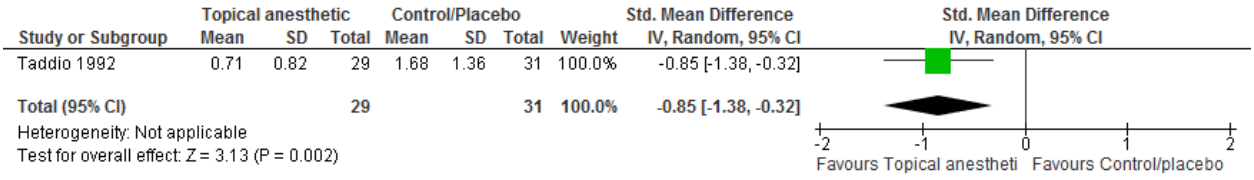
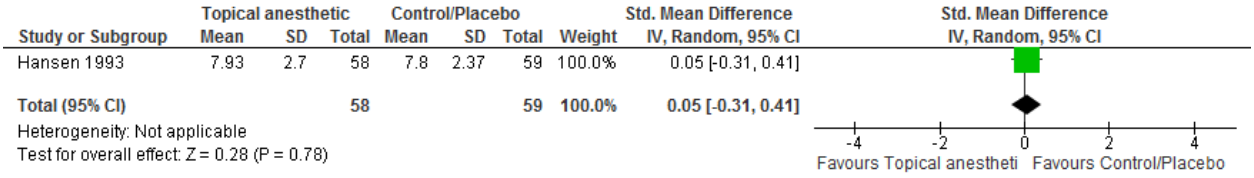
Revman Plots: Topical anesthetics child >12 years and adult

Pain



Distress Acute



Safety

(data from study by Taddio 1992 included in analysis for child 0-12 years)

Author(s): VS/AT
Date: 2015-03-22
Question: Should topical anaesthetics vs placebo/control be used for reducing vaccine injection pain in adolescents >12 years and adults?[1]
Settings: clinic, hospital
Bibliography: Hansen 1993, Taddio 1992

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Topical anaesthetic	Placebo/control	Relative (95% CI)	Absolute		
Pain (measured with: validated tool (Visual Analog Scale 0-10); Better indicated by lower values)												
1	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[2]	none	29	31	-	SMD 0.85 lower (1.38 to 0.32 lower)	⊕⊕⊕O MODERATE	CRITICAL
Distress Acute (measured with: validated tool (Likert scale 0-3) by researcher; Better indicated by lower values)												
1	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[3]	none	58	59	-	SMD 0.05 higher (0.31 lower to 0.41 higher)	⊕⊕⊕O MODERATE	IMPORTANT
Safety (skin reactions)[4] (assessed with: observation of site for pallor, erythema (yes/no) by researcher)												
1	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[2]	none	-	-	-	-	⊕⊕⊕O MODERATE	IMPORTANT
								0%		-		
Preference[5,6] (assessed with: questionnaire)												
1	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[2]	none	-	-	-	-	⊕⊕⊕O MODERATE	IMPORTANT
								0%		-		

Distress, Fear, Procedure outcome, Safety (immunogenicity), Use of intervention, Vaccine Compliance, Memory, Satisfaction (assessed with: no data were identified for these important outcomes)												
0	No evidence available					none	-	-	-	-		IMPORTANT
								0%		-		

[1] In study by Taddio (1992), vaccine was administered intramuscularly; in study by Hansen (1993), vaccine was administered subcutaneously.
[2] Sample size was below the recommended optimum information size (OIS) of 400 for an effect size of 0.2
[3] 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
[4] Information for safety included in GRADE profile for child 0-12 years
[5] In study by Taddio (1992), 52/60 (87%) of participants reported that they could fit the application of the cream in their schedules. All (100%) of participants reported that the cream was not difficult to apply.
[6] In study by Hansen (1993), children were asked about whether they would like topical anaesthetics to be used in the future and 65/111 (59%) reported that they would.