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Question: Should a breathing intervention (cough, breath-hold) vs no treatment be used for reducing vaccine injection pain in adults?^{1,2}

Settings: hospital, clinic

Bibliography: Basaranoglu 2006, Usichenko 2004

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	A breathing intervention	No treatment	Relative (95% CI)	Absolute		
Pain (measured with: validated tool (Visual Analog Scale 0-10, Numerical Rating Scale 0-10); Better indicated by lower values)												
2	randomised trials ^{1,2,3,4}	serious ⁵	no serious inconsistency	serious ^{3,6}	serious ⁷	none	69	69	-	SMD 0.82 lower (1.21 to 0.43 lower)	⊕000 VERY LOW	CRITICAL
Fear (assessed with: no data were identified for this critically important outcome)												
0	No evidence available					none	-	-	-	-		CRITICAL
								0%		-		
Distress, Procedure Outcomes, Use of Intervention, Vaccine Compliance, Memory, Preference, Satisfaction (assessed with: no data were identified for these important outcomes)												
0	No evidence available					none	-	-	-	-		IMPORTANT
								0%		-		

¹ In study by Basaranoglu (2006), participants were asked to perform a deep inspiration and forcefully breath-hold.

² In study by Usichenko (2004), participants were asked to cough with moderate intensity without moving their arms.

³ Study by Usichenko (2004) includes male volunteers. Study by Basaranoglu (2006) includes females undergoing elective surgery.

⁴ Study by Usichenko (2004) is a cross-over trial

⁵ Operator not blinded; participant not consistently blinded; outcome assessor not consistently blinded

⁶ Context is venipuncture/venous cannulation.

⁷ Sample size was below the recommended optimum information size (OIS) of 400 for an effect size of 0.2