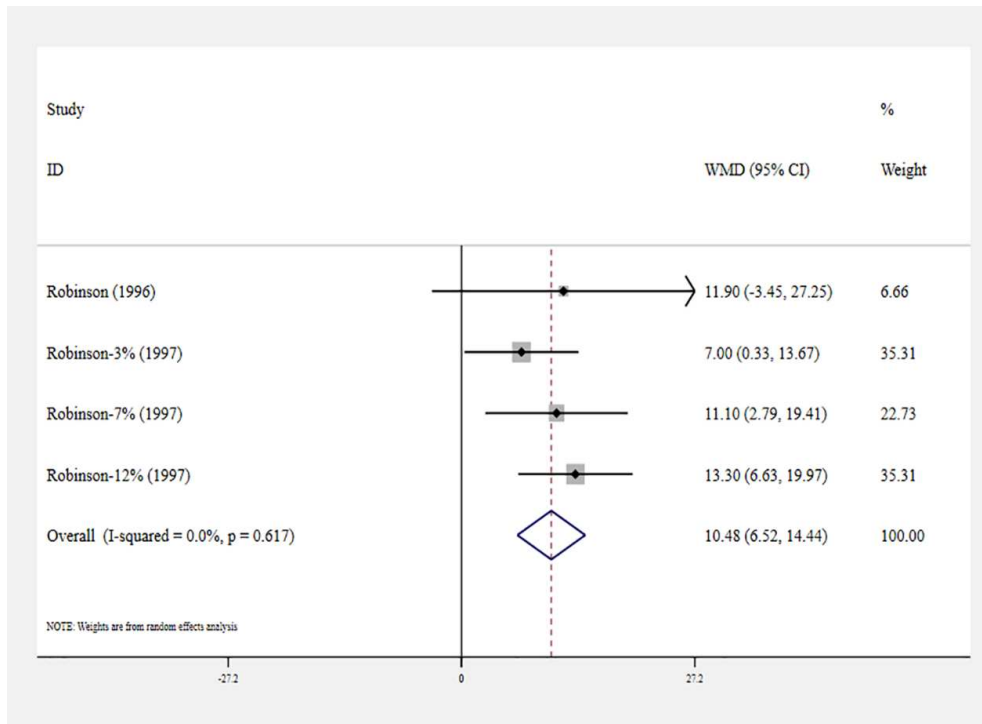


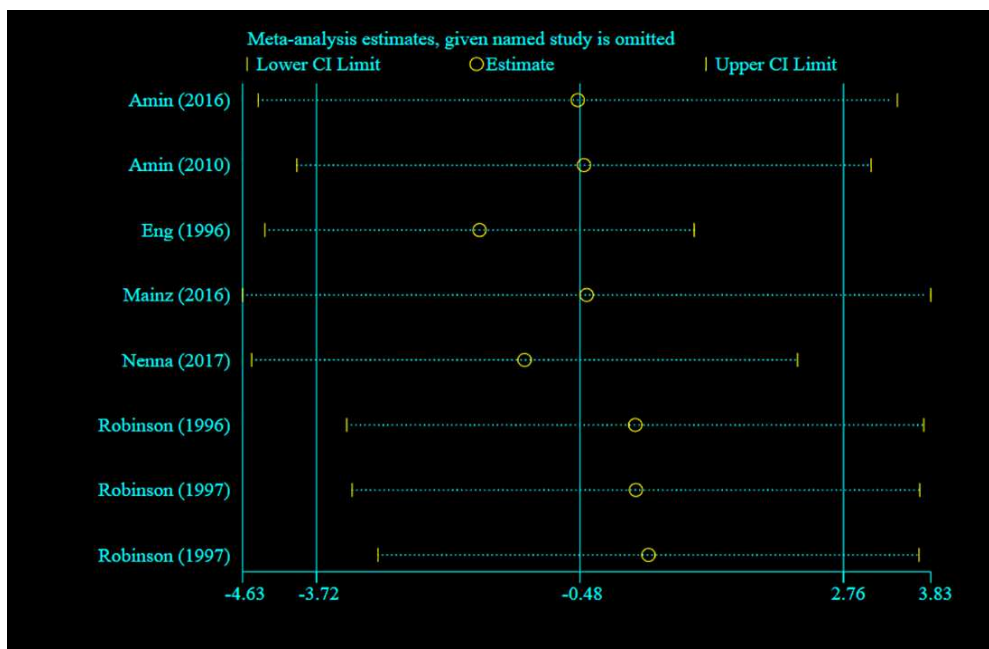
Figure S1: The flow diagram of identifying relevant studies

	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Other bias
Amin 2010	+	+	?	+	+	+	+
Amin 2016	+	+	?	+	+	+	+
Clarke 1979	+	?	+	+	+	?	?
Dentice2016	?	?	+	+	+	+	+
Elkins 2006	+	+	+	+	+	+	+
Eng 1996	+	?	?	+	+	+	+
Forouzan2017	+	?	+	+	?	?	?
Herrero-Cortina2018	+	+	?	?	?	?	?
Kellett2005	+	?	?	?	?	?	?
Kellett2011	?	?	-	?	+	+	?
Laube 2009	?	?	?	?	+	+	+
Mainz 2016	?	?	?	?	+	+	+
Nenna 2017	+	+	-	?	+	+	?
Nicolson2012	+	+	+	+	+	+	+
Riedler 1996	+	+	?	?	?	?	+
Robinson1996	?	?	-	?	+	+	?
Robinson1997	?	?	?	?	+	+	?
Rosenfeld 2012	+	+	+	+	+	+	+
Stahl 2018	?	?	?	?	+	+	?
Tamara 2017	+	+	+	+	+	+	+
Valderramas 2009	+	+	+	+	?	?	+

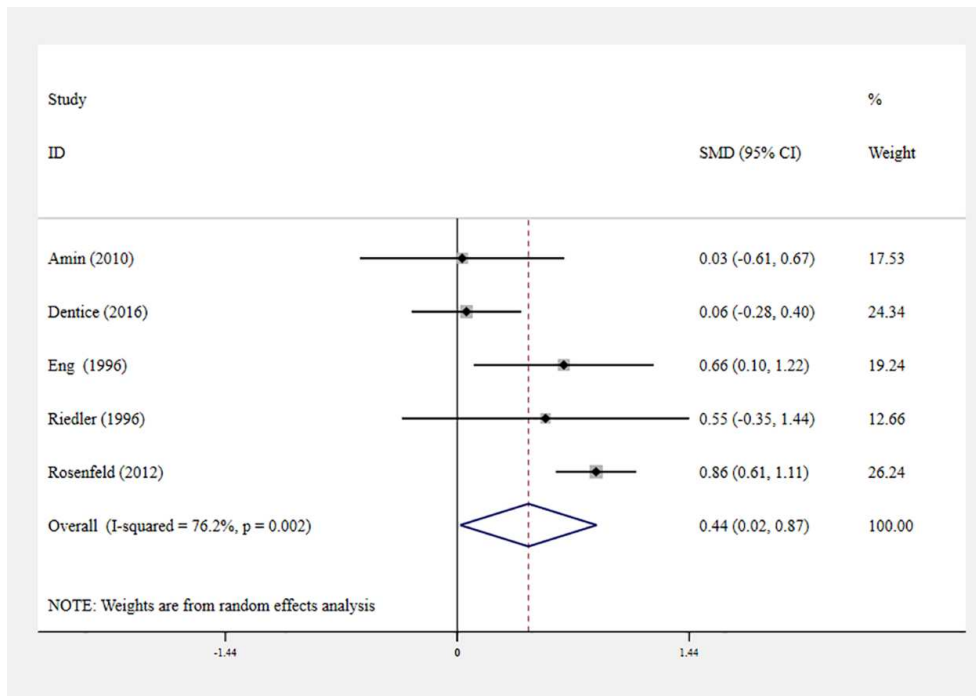
Figure S2: Risk of bias summary.



**Figure S3: The effects of nebulized hypertonic saline treatment on the MCC in 90minutes in CF.**



**Figure S4: Sensitivity analysis for FEV1 in CF: exclusion of a single study in turn. The study being cited on the left is the one being left out in each analysis.**



**Figure S5: The effects of nebulized hypertonic saline treatment on the quality of life in CF.**