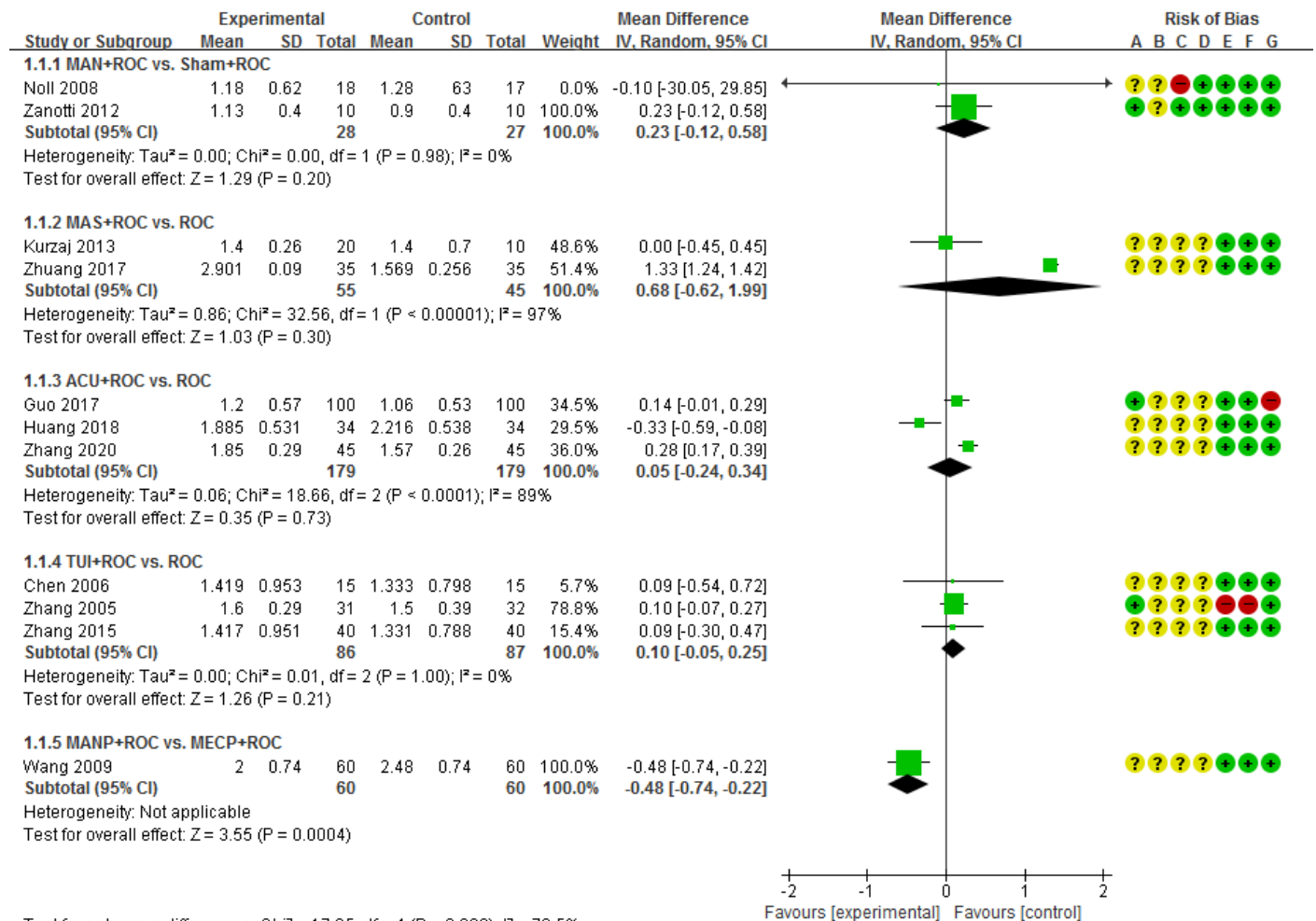
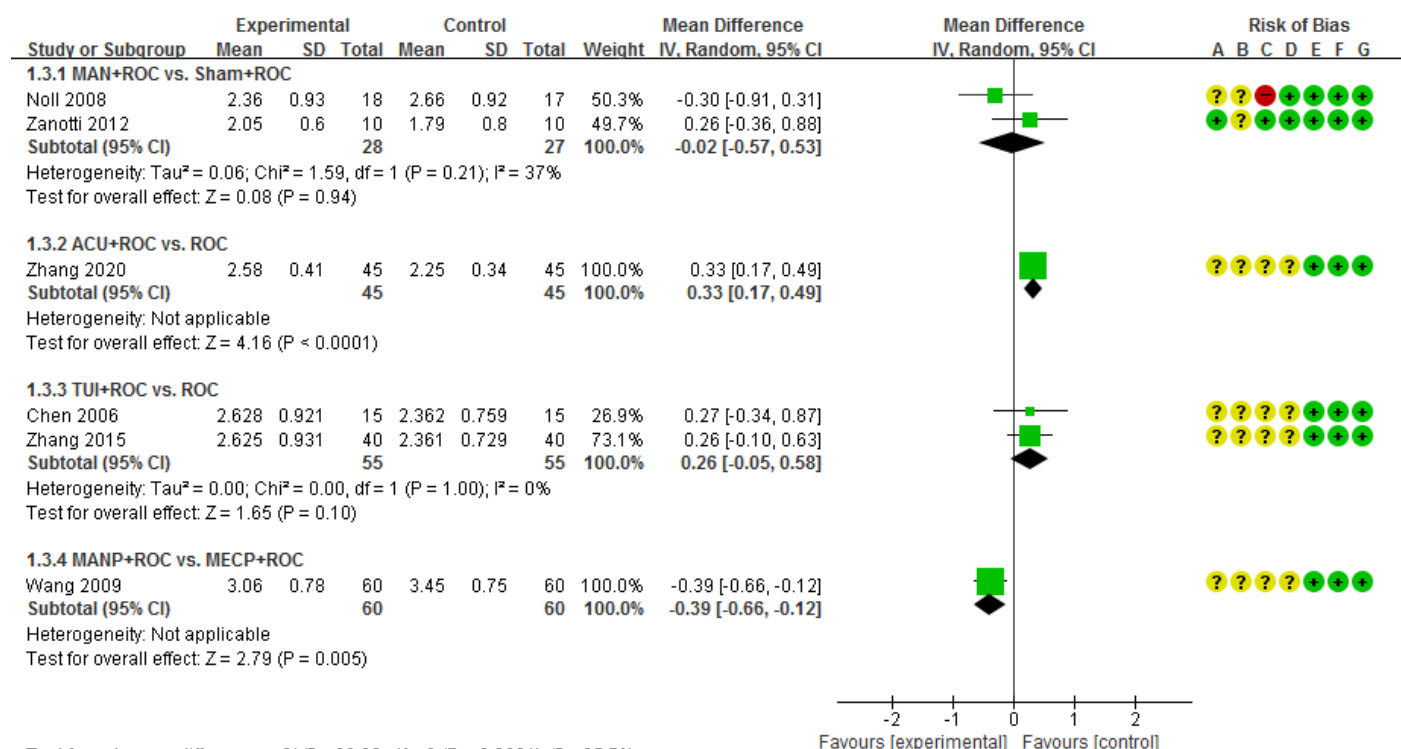


Supplement S3. Results of pairwise meta-analysis

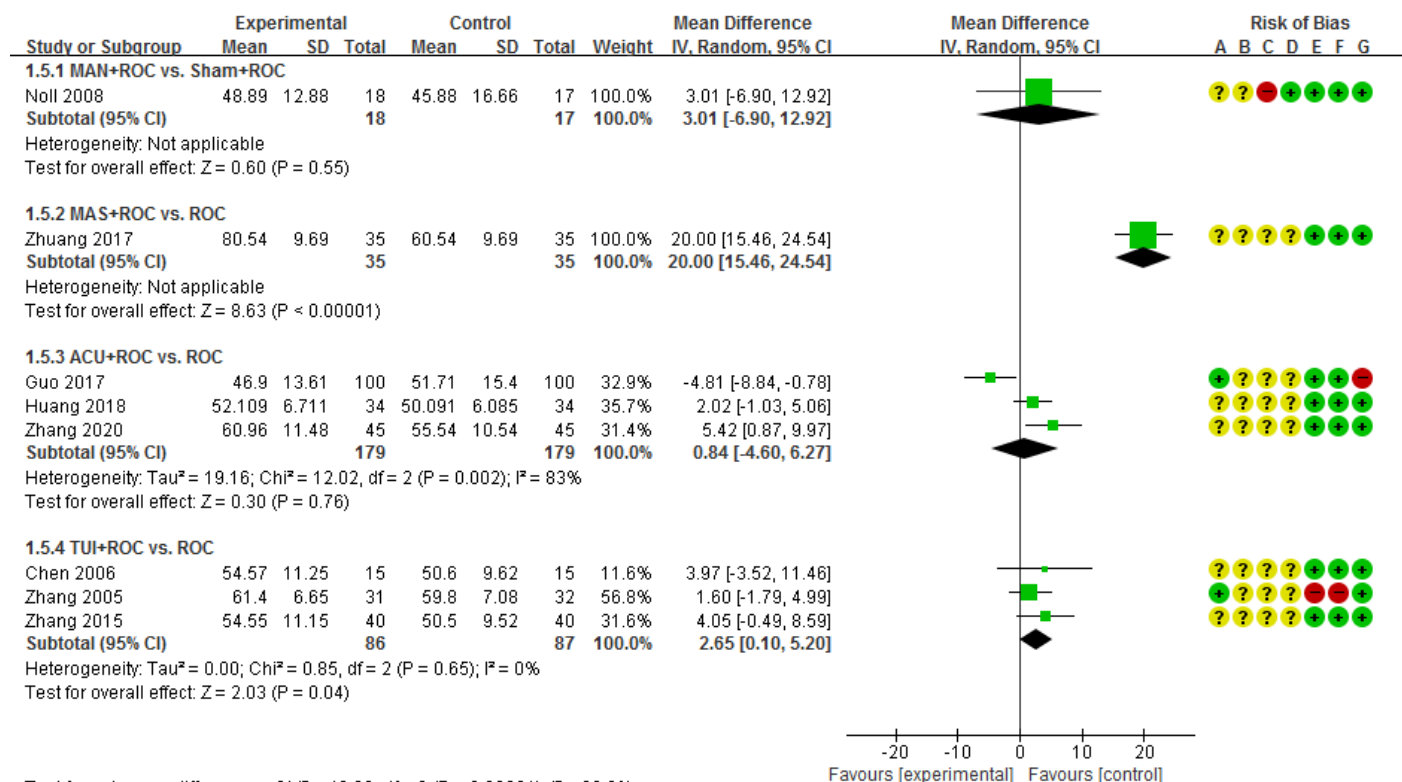
1. FEV1 (L)



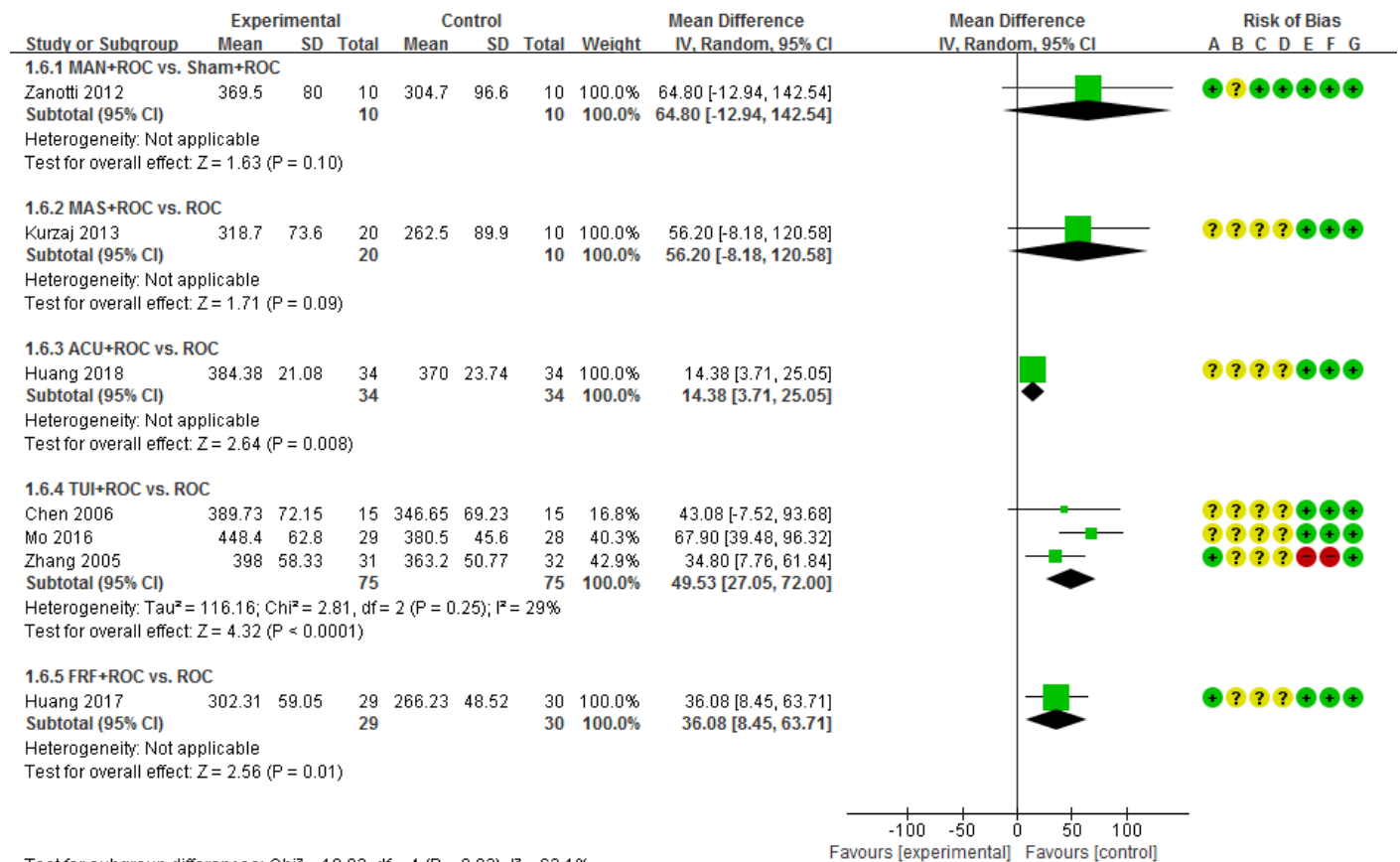
2. FVC (L)



3. FEV1/FVC (%)



4. 6MWD (m)

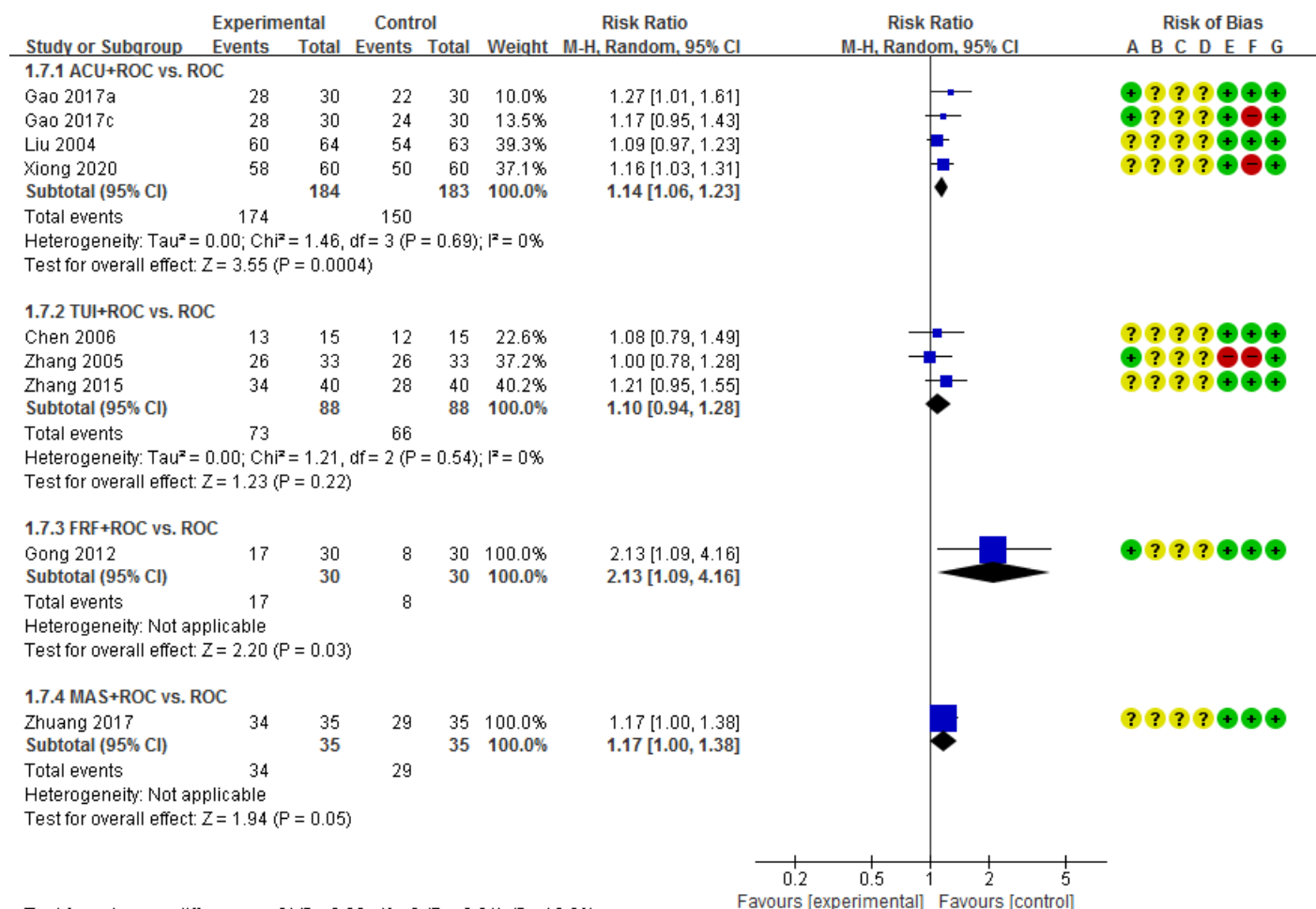


Test for subgroup differences: Chi² = 10.83, df = 4 (P = 0.03), I² = 63.1%

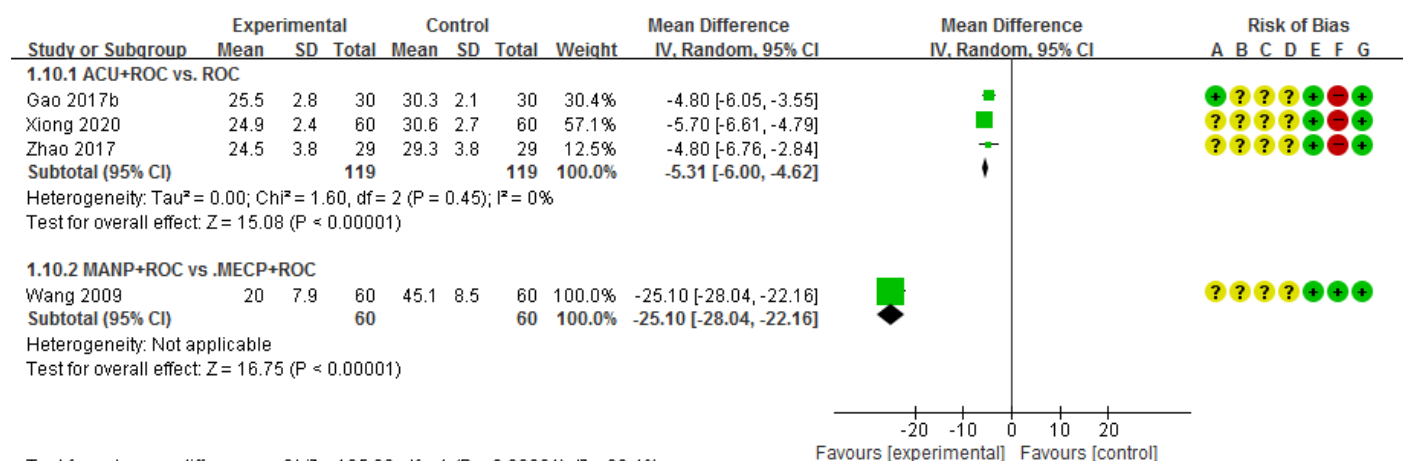
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

5. TER (respiratory symptom)



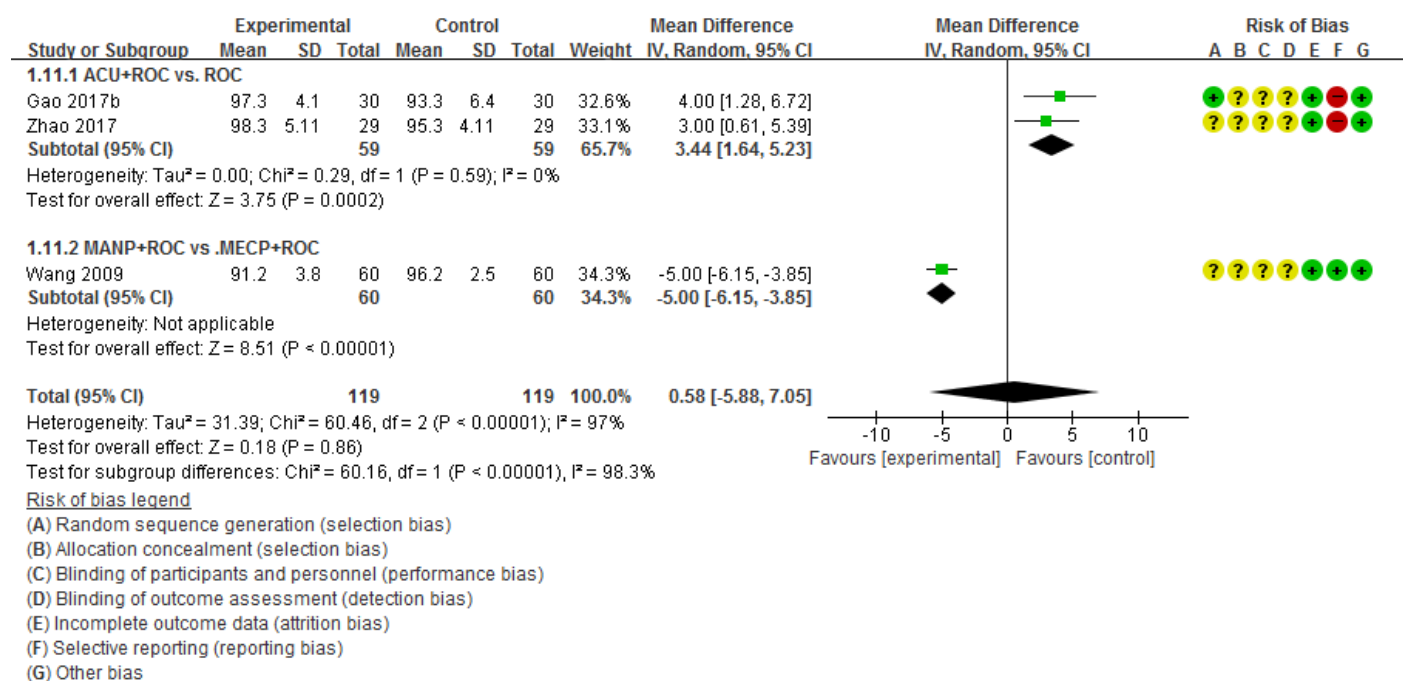
6. Sputum secretion (mL)



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

7. SpO2 (%)



8. PaO2 (mmHg)

Study or Subgroup	Experimental			Control			Weight	Mean Difference IV, Random, 95% CI	Mean Difference IV, Random, 95% CI	Risk of Bias								
	Mean	SD	Total	Mean	SD	Total				A	B	C	D	E	F	G		
1.12.1 ACU+ROC vs. ROC																		
Gao 2017a	86.78	9.08	30	67.36	7.58	30	18.9%	19.42 [15.19, 23.65]		+	?	?	?	+	+	+		
Gao 2017b	80.8	5.14	30	65.34	5.53	30	21.3%	15.46 [12.76, 18.16]		+	?	?	?	+	+	+		
Gao 2017c	80.8	2.16	30	71.38	1.24	30	23.1%	9.42 [8.53, 10.31]		+	?	?	?	+	+	+		
Liu 2004	68.78	18.6	64	62.56	16.95	63	15.5%	6.22 [0.03, 12.41]		?	?	?	?	+	+	+		
Zhao 2017	80.7	5.24	29	65.24	5.63	29	21.2%	15.46 [12.66, 18.26]		?	?	?	?	+	+	+		
Subtotal (95% CI)			183			182	100.0%	13.38 [9.16, 17.60]										
Heterogeneity: Tau ² = 19.84; Chi ² = 49.27, df = 4 (P < 0.00001); I ² = 92%																		
Test for overall effect: Z = 6.22 (P < 0.00001)																		

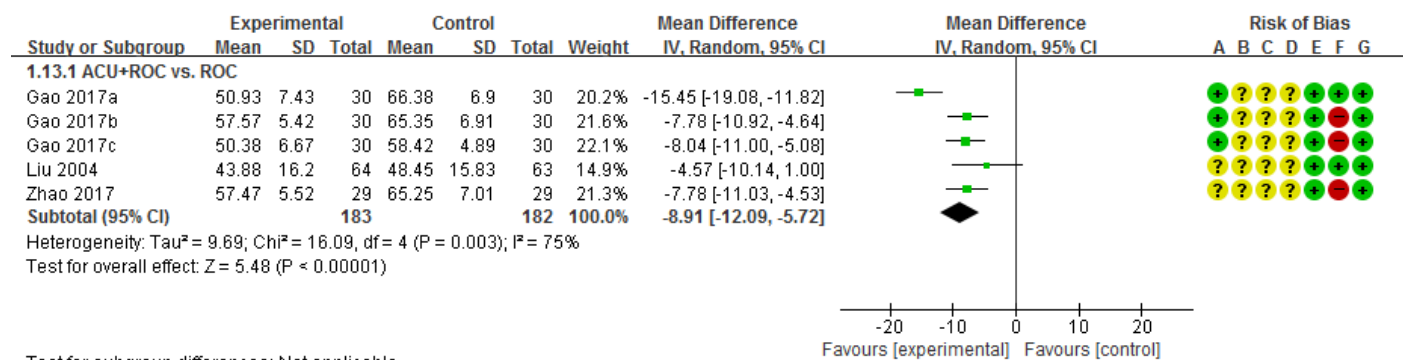
-20 -10 0 10 20
Favours [experimental] Favours [control]

Test for subgroup differences: Not applicable

Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

9. PaCO₂ (mmHg)

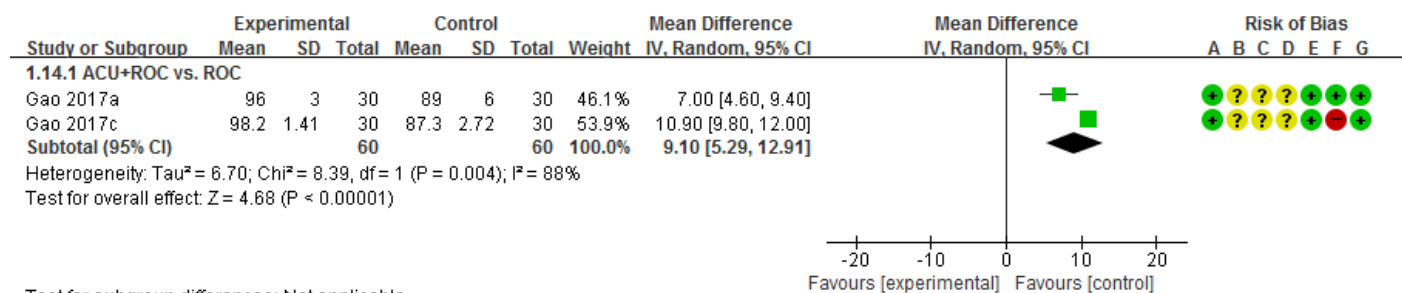


Test for subgroup differences: Not applicable

Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

10. SaO2 (%)



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

11. Adverse events (incidence)

