## Efficacy and safety of CQ and HCQ for treating COVID-19 patients

Clinical deterioration excluding mortality RCTs	oration excluding mortality			Risk ratio with 95% CI		Weight (%)	
J. Chen et al., 2020					- 3.00 [ 0.13,	68.22]	0.29
Cavalcanti et al., 2020 (a)			-		0.93 [ 0.45,	1.96]	4.93
Cavalcanti et al., 2020 (b)			-		1.01 [ 0.49,	2.05]	5.33
L. Chen et al., 2020 (a)	-				0.68 [ 0.01,	31.76]	0.19
L. Chen et al., 2020 (b)	_				0.68 [ 0.01,	31.76]	0.19
Z. Chen et al., 2020			_		0.11 [ 0.01,	2.02]	0.33
Horby et al., 2020					1.13 [ 1.01,	1.25]	80.20
Kamran et al., 2020		_	-		0.95 [ 0.34,	2.69]	2.55
Mitja et al., 2020		_	-		0.84 [ 0.35,	2.03]	3.52
Skipper et al., 2020			-		0.51 [ 0.18,	1.46]	2.47
Overall					1.06 [ 0.90,	1.26]	
Heterogeneity: $\tau^2 = 0.01$ , $I^2 = 3.60\%$ , $H^2 = 1.04$							
Test of $\theta_i = \theta_j$ : Q(9) = 5.84, p = 0.76		Favours CQ/HC	Q Favou	rs Control			
Test of $\theta$ = 0: z = 0.72, p = 0.47							
Random-effects REML model	1/128	1/8	2	32	_		

**Supplementary Figure 1.** Forest plot showing risk ratios for Clinical deterioration excluding mortality in patients randomized to CQ/HCQ vs Control (Usual care). Legend: L. Chen et al., 2020 (a) represents the trials arm CQ vs Control; L. Chen et al., 2020 (b) represents the trials arm HCQ vs Control; Cavalcanti et al., 2020 (a) represents the trials arm HCQ vs Control; Cavalcanti et al., 2020 (a) represents the trials arm HCQ vs Control; Cavalcanti et al., 2020 (a) represents the trials arm HCQ vs Control.

Time to clinical recovery (Days) RCTs		Mean Difference (Days) with 95% CI	Weight (%)
J. Chen et al., 2020		0.00 [ -0.70, 0.70]	17.03
L. Chen et al., 2020 (a)		-0.34 [ -1.05, 0.38]	16.58
L. Chen et al., 2020 (b)		-0.24 [ -0.96, 0.47]	16.64
Abd-Elsalam et al., 2020		-0.04 [ -0.32, 0.24]	28.35
Z. Chen et al., 2020		-1.07 [ -1.60, -0.55]	21.39
Overall		-0.34 [ -0.75, 0.08]	
Heterogeneity: $r^2 = 0.14$ , $I^2 = 64.99\%$ , $H^2 = 2.86$			
Test of $\theta_i = \theta_j$ : Q(4) = 12.18, p = 0.02	Favours Control Favours C	Q/HCQ	
Test of $\theta$ = 0: z = -1.58, p = 0.11			
-2	-1 0	1	

Random-effects REML model

**Supplementary Figure 2.** Forest plot showing mean difference in time to clinical recovery in patients randomized to CQ/HCQ vs Control (Usual care). Legend: L. Chen et al., 2020 (a) represents the trials arm CQ vs Control; L. Chen et al., 2020 (b) represents the trials arm HCQ vs Control.

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Time to Seroconversion RCTs		١	Mean Difference with 95%		Weight (%)
Abd-Elsalam et al., 2020	-	-	-0.23 [ -0.51,	0.05]	19.75
L. Chen et al., 2020 (a)			-1.28 [ -2.06,	-0.50]	14.82
L. Chen et al., 2020 (b) -	_		-1.45 [ -2.24,	-0.65]	14.63
Tang et al., 2020		-	0.07 [ -0.25,	0.39]	19.48
C. Chen et al., 2020		-	-0.57 [ -1.28,	0.14]	15.65
J. Chen et al., 2020	_		0.43 [ -0.27,	1.14]	15.66
Overall		-	-0.45 [ -1.02,	0.11]	
Heterogeneity: $r^2 = 0.40$ , $l^2 = 86.24\%$ , $H^2 = 7.27$					
Test of $\theta_i = \theta_j$ : Q(5) = 23.61, p = 0.00	Favours Control	Favours CQ/HCQ			
Test of $\theta$ = 0: z = -1.58, p = 0.11					
10000000 0 00000 000000 00000 00000 00000	-2 -1	0 1			

Random-effects REML model

**Supplementary Figure 3.** Forest plot showing mean difference in time to seroconversion (negative PCR) in patients randomized to CQ/HCQ vs Control (Usual care). Legend: L. Chen et al., 2020 (a) represents the trials arm CQ vs Control; L. Chen et al., 2020 (b) represents the trials arm HCQ vs Control.

Duration of Hospital stay RCTs			Mean Difference (Days) with 95% Cl	Weight (%)
S. Abd-Elsalam et al., 2020	-		-0.09 [ -0.37, 0.19]	22.34
A. Cavalcanti et al., 2020 (a)			0.01 [ -0.20, 0.23]	38.08
A. Cavalcanti et al., 2020 (b)			0.10 [ -0.11, 0.31]	39.58
<b>Overall</b> Heterogeneity: $r^2 = 0.00$ , $I^2 = 0.00\%$ , $H^2 = 1.00$	-		0.03 [ -0.11, 0.16]	
Test of $\theta_i = \theta_j$ : Q(2) = 1.20, p = 0.55	Favours Control	Favours CQ/HCQ		
Test of θ = 0: z = 0.37, p = 0.71	.42	0.2	4	

Random-effects REML model

**Supplementary Figure 4.** Forest plot showing mean difference in duration of hospital stay in patients randomized to CQ/HCQ vs Control (Usual care). Legend: Cavalcanti et al., 2020 (a) represents the trials arm HCQ vs Control; Cavalcanti et al., 2020 (a) represents the trials arm HCQ+ZAM vs Control.

Proportion of patients discharged RCTs		Risk ratio with 95% CI	Weight (%)
Horby et al., 2020		0.96 [ 0.91, 1.0	01] 66.90
Cavalcanti et al., 2020 (a)	-	0.96 [ 0.87, 1.0	6] 16.15
Cavalcanti et al., 2020 (b)		0.96 [ 0.88, 1.0	6] 16.96
Overall		0.96 [ 0.92, 1.0	[00]
Heterogeneity: $\tau^2 = 0.00$ , $I^2 = 0.04\%$ , $H^2 = 1.00$			
Test of $\theta_i = \theta_j$ : Q(2) = 0.01, p = 1.00	Favours CQ/HCQ	Favours Control	
Test of θ = 0: z = -1.97, p = 0.05			
Random-effects REML model 0.87		1.06	

**Supplementary Figure 5.** Forest plot showing risk ratio for being discharged at the end of the study period in patients randomized to CQ/HCQ vs Control (Usual care). Legend: Cavalcanti et al., 2020 (a) represents the trials arm HCQ vs Control; Cavalcanti et al., 2020 (a) represents the trials arm HCQ+ZAM vs Control.