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Figure S1: Comparative meta-analysis of standardized mean difference of ALT in Covid-19 patients with 95% CI

A) Favors mild-moderate vs severe-critical

				Severe-critical			Weight Weigh		Std. Mean Difference	Std. Mean Difference			
Study	Mean	SD	Total	Mean	SD	Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI			
Chuan/2020/China	25.44	16.25	28	56.68	21.74	4	1.1%	6.3%	-1.80 [-2.95; -0.66]				
Cao/2020/China	28.89	31.83	107	43.87	47.80	21	6.7%	8.3%	-0.43 [-0.90; 0.04]				
Hui/2020/China	32.08	21.92	32	101.63	41.11	7	1.4%	6.7%	-2.62 [-3.64; -1.60]				
Ji/2020/China	26.37	18.96	34	34.83	33.12	15	3.9%	7.9%	-0.35 [-0.96; 0.27]	÷*+			
Mao/2020/China	96.67			656.83		88	19.1%	8.7%	-0.59 [-0.87; -0.31]				
Shang/2020/China	21.33		226		13.20	139	33.0%	8.8%	0.00 [-0.21; 0.22]				
Deng/2020/China	20.60		19		19.71	95	5.9%	8.2%	-0.56 [-1.06; -0.06]				
Lei Liu/2020/China	20.50	4.10	44	22.00	3.67	7	2.3%	7.4%	-0.36 [-1.17; 0.44]				
Hongzhou Lu/2020/China	23.00	13.42	243		7.92	22	7.7%	8.4%	-0.51 [-0.95; -0.07]	· · · · · · · · · · · · · · · · · · ·			
Yudong/2020/China	35.50		96	25.17	9.75	16	5.2%	8.1%	0.43 [-0.10; 0.97]				
Min/2020/China	18.00	8.00	26	74.00	33.00	4	0.6%	5.1%	-4.13 [-5.67; -2.59]				
Dawei Wang/2020/China	24.67	16.35	102		30.12	36	9.9%	8.5%	-0.59 [-0.98; -0.20]				
Chaolin Huang/2020/China	28.83	16.01	28	64.33	71.43	13	3.1%	7.7%	-0.83 [-1.52; -0.15]				
Total (fixed effect, 95% CI) Total (random effects, 95% C Prediction interval	1)	1111					100.0% 	 100.0%	-0.38 [-0.50; -0.26] -0.81 [-1.34; -0.28]				
	² = 74.83, df = 12 (P < 0.01); l ² = 84%								[-2.89; 1.28]				
/										-4 -2 0 2 4			
										Mild-moderate Severe-critical			

	Survivors Non-survivors				Weight	Weight	Std. Mean Difference	Std. Mean Difference		
Study	Mean	SD	Total	Mean	SD	Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Shang/2020/China	21.31	12.39	365	22.43	11.38	51	37.7%	37.7%	-0.09 [-0.38; 0.20]	
Lu/2020/China	25.90	15.40	92	29.90	15.30	31	19.4%	19.4%	-0.26 [-0.67; 0.15]	
Jingwen Li/2020/China	62.46	120.50	96	134.86	277.78	65	32.2%	32.2%	-0.36 [-0.68; -0.04]	
Xiaobo Yang/2020/China	7.57	12.68	22	6.84	33.47	30	10.7%	10.7%	0.03 [-0.52; 0.58]	
Total (fixed effect, 95% CI)			575			177	100.0%		-0.20 [-0.38; -0.02]	
Total (random effects, 95% CI)								100.0%	-0.20 [-0.38; -0.02]	
Prediction interval	Prediction interval								[-0.59; 0.20]	
Heterogeneity: Tau ² = 0; Chi ² = 2.25, df = 3 (P = 0.52); I ² = 0%										
										-0.6 -0.4 -0.2 0 0.2 0.4 0.6
										Survivors Non-survivors

Figure S2: Comparative meta-analysis of standardized mean difference of AST in Covid-19 patients with 95% CI

A) Favors mild-moderate vs severe-critical

	Mild-moderate			Severe-critical			Weight	Weight	Std. Mean Difference	Std. Mean Difference					
Study	Mean			Mean		Total	(fixed)	(random) I	V, Fixed + Random, 95% Cl	IV, Fixed + Random, 95% CI					
Chuan/2020/China	22.95	6.04	28	48.53	33.81	4	1.0%	6.2%	-2.06 [-3.23; -0.88]						
Cao/2020/China	27.98	25.80	107	44.13	36.26	21	6.1%	7.6%	-0.58 [-1.05; -0.11]	•••					
Hui/2020/China	29.42	16.88	32	140.00	59.53	7	0.9%	6.1%	-3.80 [-5.01; -2.59]						
Yanli Liu/ 2020/China96	28.67	14.46	56	33.30	14.48	53	9.6%	7.7%	-0.32 [-0.70; 0.06]						
Ji/2020/China	29.10	11.10	34	36.67	28.63	15	3.6%	7.4%	-0.41 [-1.02; 0.20]						
Mao/2020/China	92.00	176.24	126	2744.34	6167.58	88	17.5%	7.8%	-0.67 [-0.95; -0.39]						
Shang/2020/China	24.40	10.56	226	26.33	10.41	139	30.5%	7.9%	-0.18 [-0.40; 0.03]						
Deng/2020/China	21.50	4.60	19	37.28	21.23	95	5.4%	7.5%	-0.80 [-1.31; -0.30]	∺					
Lei Liu/2020/China	21.75	2.96	44	25.67	4.59	7	2.0%	6.9%	-1.20 [-2.04; -0.37]	-++					
Hongzhou Lu/2020/China	24.66	8.94	243	40.90	18.86	22	6.5%	7.6%	-1.60 [-2.06; -1.15]						
Yudong/2020/China	32.17	16.18	96	29.83	11.38	16	4.9%	7.5%	0.15 [-0.38; 0.68]	- -					
Min/2020/China	20.00	6.00	26	64.00	20.00	4	0.5%	5.0%	-4.94 [-6.65; -3.24]						
Dawei Wang/2020/China	32.33	13.23	102	50.67	31.70	36	8.7%	7.7%	-0.93 [-1.32; -0.53]						
Chaolin Huang/2020/China	32.83	12.89	28	48.00	33.22	13	3.0%	7.2%	-0.70 [-1.37; -0.02]						
Total (fixed effect, 95% CI)			1167			520	100.0%		-0.60 [-0.71; -0.48]	•					
Total (random effects, 95% C	:1)							100.0%	-1.15 [-1.77; -0.52]	★					
Prediction interval									[-3.70; 1.41]						
Heterogeneity: Tau ² = 1.2717; Chi ² = 106.78, df = 13 (P < 0.01); l ² = 88%															
										-6 -4 -2 0 2 4 6					

Mild-moderate Severe-critical

B) Favors survivor vs non-survivor

				lon-su	on-survivors			Weight	Std. Mean Difference	Std. Mean Difference		
Study	Mean	SD	Total	Mean	SD	Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI		
Shang/2020/China	25.14	10.53	365	33.33	17.55	51	37.4%	29.1%	-0.71 [-1.00; -0.41]			
Lu/2020/China	33.60	19.20	92	50.20	26.60	31	18.8%	23.8%	-0.78 [-1.19; -0.36]	— <u>—</u> —		
Jingwen Li/2020/China	56.63	101.15	96	94.58	178.39	65	32.9%	28.2%	-0.27 [-0.59; 0.04]			
Xiaobo Yang/2020/China	7.57	21.40	22	6.84	19.46	30	10.9%	18.8%	0.04 [-0.51; 0.59]	<u>⊨</u> •		
Total (fixed effect, 95% CI)			575			177	100.0%		-0.50 [-0.68; -0.31]	•		
Total (random effects, 95% CI)								100.0%	-0.46 [-0.80; -0.12]			
Prediction interval									[-1.88; 0.96]			
Heterogeneity: Tau ² = 0.0795; Chi ² = 9.08, df = 3 (P = 0.03); l ² = 67%								15 1 05 0 05 1 15				
										-1.5 -1 -0.5 0 0.5 1 1.5		

Survivors Non-survivors

Figure S3: Comparative meta-analysis of odds ratios of cardiovascular disease in Covid-19 patients with 95% CI

A) Favors mild-moderate vs severe-critical

	Mild-moderateSevere-critical		Weight Weight		Odds Ratio	Odds Ratio				
Study	Events	Total	Events	Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI		
Man Huang/2020/China	3	142	2	55	9.0%	9.0%	0.57 [0.09; 3.52]			
Zhichao Feng/2020/China	2	126	1	15	4.9%	4.9%	0.23 [0.02; 2.65]			
Yanli Liu/ 2020/China96	4	56	3	53	12.4%	12.4%	1.28 [0.27; 6.02]			
Qin/2020/China	2	53	1	35	5.0%	5.0%	1.33 [0.12; 15.29]			
Yudong/2020/China	31	96	9	16	25.6%	25.6%	0.37 [0.13; 1.09]			
Kunhua Li/2020/China	0	58	1	25	2.8%	2.8%	0.14 [0.01; 3.55]			
Dawei Wang/2020/China	11	102	9	36	30.8%	30.8%	0.36 [0.14; 0.97]			
Chaolin Huang/2020/China	3	28	3	13	9.6%	9.6%	0.40 [0.07; 2.33]			
Total (fixed effect, 95% CI)		661		248	100.0%		0.46 [0.26; 0.78]	+		
Total (random effects, 95% C Heterogeneity: Tau ² = 0; Chi ² = 3		^o = 0.8	1); I ² = 0%	5		100.0%	0.46 [0.26; 0.78]			
/								0.01 0.1 1 10 100 Mild-moderate Severe-critical		

B) Favors survivor vs non-survivor

	SurvivorsNon-survivors			Weight	Weight	Odds Ratio	Odds Ratio						
Study	Events	Total	Events	Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI					
Xu/2020/China	0	17	1	10	3.4%	13.4%	0.18 [0.01; 4.89]						
Lu/2020/China	1	92	4	31	7.3%	19.5%	0.07 [0.01; 0.69]						
Jin/2020/ China	0	1019	8	37	4.4%	15.5%	0.00 [0.00; 0.03]	[
Jingwen Li/2020/China	20	96	39	65	74.6%	29.7%	0.18 [0.09; 0.35]	🗯					
Xiaobo Yang/2020/China	2	22	3	30	10.3%	21.9%	0.90 [0.14; 5.90]						
Total (fixed effect, 95% CI)		1246		173	100.0%		0.16 [0.09; 0.29]	+					
Total (random effects, 95% CI						100.0%	0.10 [0.02; 0.51]						
Heterogeneity: Tau ² = 2.0936; Chi ²	= 13.36, o	lf = 4 (F	° < 0.01) ;	$l^2 = 70^{\circ}$	%								
								0.001 0.1 1 10 1000					

01 0.1 1 10 1000 Survivors Non-survivors Figure S4: Comparative meta-analysis of odds ratios of cough in Covid-19 patients with 95% CI

A) Favors mild-moderate vs severe-critical

	Mild-mod	lerate	Severe_c	ritical	Weight	Weight	Odds Ratio	Odds Ratio
Study			Events					IV, Fixed + Random, 95% Cl
Yu-Huan Xu/2020/China	14	37	6	13	2.1%	3.4%	0.71 [0.20; 2.55]	
Cao/2020/China	71	107	15	21	3.2%	4.7%	0.79 [0.28; 2.21]	i
Zhichao Feng/2020/China	66	126	8	15	3.0%	4.4%	0.96 0.33; 2.81	
Wu/2020/China	11	14	7	7	0.4%	0.7%	0.22 [0.01; 4.88]	
Yanli Liu/ 2020/China96	36	56	31	53	5.7%	7.0%	1.28 0.59; 2.77	
Tian/2020/China	95	216	25	46	8.4%	8.7%	0.66 0.35; 1.25	- + +
Shang/2020/China	162	226	121	139	10.4%	9.7%	0.38 [0.21; 0.67]	-
Qin/2020/China	48	53	35	35	0.4%	0.8%	0.12 [0.01; 2.32]	
Lei Liu/2020/China	32	44	6	7	0.7%	1.3%	0.44 [0.05; 4.09]	+ <u>1</u>
Bicheng Zhang/2020/China	45	82	45	58	6.0%	7.2%	0.35 [0.17; 0.75]	
Wenhua Liu/2020/China126	80	553	18	75	10.2%	9.6%	0.54 [0.30; 0.96]	- ;
Qi/2020/China	155	217	34	50	7.8%	8.4%	1.18 [0.61; 2.28]	
Hongzhou Lu/2020/China	124	243	7	22	3.9%	5.5%	2.23 [0.88; 5.67]	i — •
Yudong/2020/China	64	96	12	16	2.3%	3.7%	0.67 [0.20; 2.23]	
Kunhua Li/2020/China	41	58	24	25	0.8%	1.4%	0.10 [0.01; 0.80]	
Wei-jie Guan/2020/China	623	926	122	173	27.3%	13.6%	0.86 [0.60; 1.23]	
Dawei Wang/2020/China	61	102	21	36	5.7%	7.0%	1.06 [0.49; 2.30]	
Chaolin Huang/2020/China	20	28	11	13	1.2%	2.0%	0.45 [0.08; 2.53]	
Young/2020/Singapore	10	12	5	6	0.5%	0.9%	1.00 [0.07; 13.87]	<u> </u>
Total (fixed effect, 95% CI)		3196		810	100.0%		0.73 [0.61; 0.88]	2 2
Total (random effects, 95% C	n	0.00		010		100.0%	0.72 [0.55; 0.93]	•
Heterogeneity: $Tau^2 = 0.0966$; Chi		f = 18	(P = 0.07)	$1^2 = 3^4$	5%		0.001	
Therefogenery. Tau = 0.0000, Off	- 21.40, u	- 10	(1 = 0.07)	, 0.	570		(0.01 0.1 1 10 100

Mild-moderate Severe-critical

	SurvivorsNon-surviv				Weight	Weight	Odds Ratio	Odds Ratio
Study	Events	Total	Events	Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Xu/2020/China	11	17	5	10	6.8%	6.8%	1.83 [0.37; 8.98]	
Shang/2020/China	283	365	44	51	24.6%	24.6%	0.55 [0.24; 1.26]	
Lu/2020/China	66	92	23	31	20.1%	20.1%	0.88 [0.35; 2.22]	
Jingwen Li/2020/China	66	96	42	65	38.5%	38.5%	1.20 [0.62; 2.35]	
Xiaobo Yang/2020/China	17	22	23	30	10.0%	10.0%	1.03 [0.28; 3.83]	P
Total (fixed effect, 95% CI) Total (random effects, 95% CI) Heterogeneity: Tau ² = 0: Chi ² = 2.8		592	$3) \cdot 1^2 = 0\%$		100.0% 	 100.0%	0.95 [0.62; 1.43] 0.95 [0.62; 1.43]	
	- i, ui – i (i	0.50	5,, - 070					0.2 0.5 1 2 5 Survivors Non-survivors

Figure S5: Comparative meta-analysis of standardized mean difference of creatinine in Covid-19 patients with 95% CI

A) Favors mild-moderate vs severe-critical

	Mild-moderate			Severe-critical			Weight	Weight	Std. Mean Difference	Std. Mean Difference			
Study	Mean	SD	Total	Mean	SD	Total	(fixed)	(random) IV	/, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI			
Cao/2020/China	51.80	73.51	107	79.35	78.90	21	5.4%	6.9%	-0.37 [-0.84; 0.10]	→ + →			
Zhichao Feng/2020/China	70.90	8.69	126	78.23	25.11	15	4.1%	5.6%	-0.64 [-1.18; -0.10]				
Hui/2020/China	66.91	9.12	32	88.20	42.56	7	1.6%	2.6%	-1.09 [-1.95; -0.24]				
Yanli Liu/ 2020/China96	65.33	21.31	56	68.33	21.34	53	8.5%	9.3%	-0.14 [-0.52; 0.24]				
Ji/2020/China	77.20	14.80	34	80.00	10.20	15	3.2%	4.7%	-0.20 [-0.81; 0.41]				
Wang/2020/China	75.31	23.52	59	77.04	22.27	57	9.0%	9.6%	-0.08 [-0.44; 0.29]	÷			
Mao/2020/China	111.37	142.26	126	3180.83	7057.26	88	15.3%	12.7%	-0.68 [-0.96; -0.40]	- 			
Shang/2020/China	64.83	20.60	226	68.87	17.40	139	26.7%	15.8%	-0.21 [-0.42; 0.00]				
Deng/2020/China	67.20	29.70	19	86.89	109.94	95	4.9%	6.4%	-0.19 [-0.69; 0.30]				
Hongzhou Lu/2020/China	63.33	17.45	243	75.30	30.51	22	6.2%	7.6%	-0.63 [-1.07; -0.19]				
Yudong/2020/China	67.67	13.21	96	76.05	28.37	16	4.2%	5.7%	-0.52 [-1.05; 0.02]				
Dawei Wang/2020/China	71.00	19.55	102	84.00	30.88	36	8.0%	9.0%	-0.56 [-0.95; -0.18]	— <u>—</u>			
Chaolin Huang/2020/China	71.83	21.25	28	74.93	32.89	13	2.8%	4.1%	-0.12 [-0.78; 0.54]				
Total (fixed effect, 95% Cl) Total (random effects, 95% Cl) Prediction interval Heterogeneity: Tau ² = 0.0240; Chi ²		df = 12 (F	1254 ⊃ = 0.10	0); I ² = 35%	6	577	100.0% 	 100.0%	-0.37 [-0.48; -0.26] -0.38 [-0.53; -0.24] [-0.76; 0.00]				
										-1 0 1			

Mild-moderate Severe-critical

	Survivors Non-survivors					Weight	Weight	Std. Mean Difference	Std. Mean Difference			
Study	Mean	an SD Total Mean SD T			Total	(fixed)	(random) I	V, Fixed + Random, 95% Cl	IV, Fixed + Random, 95% CI			
Shang/2020/China	66.37 19	.52 365	83.83	25.94	51	36.4%	24.2%	-0.85 [-1.15; -0.56]				
Lu/2020/China	67.80 45	.40 92	150.00	305.00	31	19.1%	22.2%	-0.52 [-0.93; -0.11]				
Jingwen Li/2020/China	77.43 76	6.16 96	489.16	1000.16	65	31.2%	23.8%	-0.64 [-0.97; -0.32]	÷			
Dawei Wang/2020/China	69.69 11	.52 28	118.72	46.95	5	2.5%	10.4%	-2.39 [-3.52; -1.26]	i			
Xiaobo Yang/2020/China	75.30 26	.80 22	81.70	32.80	30	10.7%	19.5%	-0.21 [-0.76; 0.34]				
Total (fixed effect, 95% CI) Total (random effects, 95% CI	`	603			182	100.0%	 100.0%	-0.69 [-0.87; -0.51] -0.76 [-1.23; -0.30]	•			
Prediction interval)						100.0%	[-2.41; 0.88]				
	rediction interval leterogeneity: Tau ² = 0.2113; Chi ² = 13.50, df = 4 (P < 0.01); l ² = 70%							[-2.41, 0.00]				
Heterogeneity. Tau = 0.2113 , $Chi = 13.30$, $ui = 4$ ($F < 0.01$), $T = 70\%$									-3 -2 -1 0 1 2 3			
									Survivors Non-survivors			

Figure S6: Comparative meta-analysis of standardized mean difference of CRP in Covid-19 patients with 95% CI

A) Favors mild-moderate vs severe-critical

	Mild-moderate	Seve	e-critical	Weigh			Std. Mean Difference			
Study	Mean SD	Total Mea	n SDTo	otal (fixed	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI			
Cao/2020/China	29.85 32.90	107 37.9	2 29.57	21 8.8%	8.6%	-0.25 [-0.72; 0.22]				
Zhichao Feng/2020/China	17.63 11.91	126 40.2	0 21.76	15 5.9%	8.6%	-1.70 [-2.27; -1.12]				
Hui/2020/China	13.29 15.77	32 111.5	7 78.67	7 1.8%	8.2%	-2.77 [-3.81; -1.72]				
Yanli Liu/ 2020/China96	20.33 17.50	56 47.0	0 28.96	53 11.8%	8.7%	-1.11 [-1.52; -0.71]				
Mao/2020/China	45.27 94.19	126 83.0	7 159.71	88 25.7%	8.7%	-0.30 [-0.57; -0.03]				
Deng/2020/China	15.70 22.70	19 84.4	3 79.92	95 7.5%	8.6%	-0.93 [-1.43; -0.42]	÷			
Lei Liu/2020/China	10.30 4.87	44 133.5	0 41.52	7 0.6%	7.2%	-7.97 [-9.76; -6.17]				
Bicheng Zhang/2020/China	29.75 8.77	82 51.7	7 50.60	58 16.2%	8.7%	-0.66 [-1.00; -0.31]				
Hongzhou Lu/2020/China	11.33 16.10	243 56.7	0 59.90	22 8.8%	8.6%	-1.97 [-2.44; -1.51]				
Yudong/2020/China	40.14 50.42	96 108.1	0 44.05	16 6.2%	8.6%	-1.36 [-1.92; -0.80]	₩.			
Kunhua Li/2020/China	13.85 21.15	58 90.5	7 68.20	25 6.4%	8.6%	-1.85 [-2.40; -1.30]				
Young/2020/Singapore	10.55 5.57	12 69.0	5 19.51	6 0.5%	6.9%	-4.71 [-6.70; -2.71]				
Total (fixed effect, 95% CI) Total (random effects, 95% Prediction interval	CI)	1001		413 100.0% -	400.00/	-1.00 [-1.14; -0.86] -1.99 [-3.11; -0.88]				
Heterogeneity: Tau ² = 3.6970; C	hi ² = 154.15, df = 1	11 (P < 0.01);	² = 93%			[-6.46; 2.48]				
	$\pi = 154.15, \alpha = 11 (1 < 0.01), 1 = 35.0$						-5 0 5			
							Mild-moderate Severe-critical			

	Su	rvivors				Non-survivors			Weight	Weight	Std. Mean Difference	Std. Mean Difference				
Study	Mean	SD	Total	Mean	SD	Total	(fixed)	(random)	IV, Fixed + Random, 95% C	I IV,	Fixed +	Rando	m, 95%	% CI		
Lu/2020/China	41.50	38.40	92	143.10	89.60	31	31.2%	49.5%	-1.81 [-2.28; -1.35]		- : :					
Jingwen Li/2020/China	106.21	233.23	96	124.66	209.25	65	68.8%	50.5%	-0.08 [-0.40; 0.23]			+				
Total (fixed effect, 95% CI)			188			96	100.0%		-0.62 [-0.88; -0.36]		-	•				
Total (random effects, 95% Cl)				2				100.0%	-0.94 [-2.64; 0.76]				<u> </u>			
Heterogeneity: Tau ² = 1.4578; Chi ² :	= 36.23,	df = 1 (P	< 0.01); l ² = 979	6					1	1	1		1		
										-2	-1	0	1	2		
											Surviv	ors No	n-survi	vors		

Figure S7: Comparative meta-analysis of standardized mean difference of d-dimer in Covid-19 patients with 95% CI

A) Favors mild-moderate vs severe-critical

	Mild-moderate	Sev	vere-critical		Weight	Weight	Std. Mean Difference	Std. Mean Difference
Study	Mean SD	Total N	Mean SD	Total	(fixed)	(random)	V, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Yanli Liu/ 2020/China96	0.42 0.30	56	1.10 1.09	53	13.1%	11.8%	-0.85 [-1.25; -0.46]	#
Ji/2020/China	0.23 0.11	34	0.64 0.61	15	4.7%	9.1%	-1.18 [-1.83; -0.52]	-
Mao/2020/China	3.10 6.37	126	7.00 15.00	88	26.8%	12.9%	-0.36 [-0.63; -0.09]	
Deng/2020/China	1.50 4.70	19	5.67 7.76	95	8.1%	10.7%	-0.56 [-1.06; -0.07]	
Lei Liu/2020/China	0.30 0.06	44	0.76 0.74	7	2.7%	7.1%	-1.72 [-2.59; -0.85]	
Bicheng Zhang/2020/China	0.20 0.04	82	1.00 1.67	58	16.7%	12.3%	-0.74 [-1.09; -0.39]	】
Hongzhou Lu/2020/China	0.46 0.32	243	1.60 2.37	22	9.7%	11.2%	-1.54 [-2.00; -1.09]	
Min/2020/China	0.26 0.08	26	1.54 1.22	4	1.1%	4.2%	-3.06 [-4.41; -1.72]	
Dawei Wang/2020/China	0.18 0.14	102	0.64 0.87	36	12.7%	11.8%	-0.99 [-1.39; -0.60]	
Chaolin Huang/2020/China	0.53 0.39	28	5.80 11.46	13	4.3%	8.8%	-0.81 [-1.49; -0.13]	-
Total (fixed effect, 95% Cl) Total (random effects, 95% Prediction interval Heterogeneity: Tau ² = 0.1981; C		760 9 (P < 0.0	01): ² = 77%		100.0% 	 100.0%	-0.82 [-0.97; -0.68] -1.02 [-1.35; -0.69] [-2.12; 0.08]	
	,							-4 -2 0 2 4 Mild-moderate Severe-critical

	Survivors	Non	-survivors		Weight	Weight	Std. Mean Difference	Std. Mean Difference
Study	Mean SD	Total M	ean SD	Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Tang/2020/China	0.75 0.70	162 2	2.72 3.58	21	22.3%	26.2%	-1.44 [-1.92; -0.96]	- <mark></mark>
Lu/2020/China	1.20 3.00	92 16	5.60 14.50	31	22.2%	26.2%	-1.99 [-2.47; -1.51]	
Jingwen Li/2020/China	0.02 0.04	96 (0.06 0.13	65	50.0%	27.9%	-0.48 [-0.80; -0.16]	
Dawei Wang/2020/China	0.17 0.77	28 (0.53 0.36	5	5.5%	19.7%	-0.49 [-1.45; 0.47]	
Total (fixed effect, 95% Cl) Total (random effects, 95% Cl) Prediction interval	1	378		122	100.0% 	 100.0%	-1.03 [-1.26; -0.80] -1.13 [-1.87; -0.39] [-4.54; 2.28]	<u> </u>
Heterogeneity: Tau ² = 0.4867; Chi ²	= 31.06, df = 3	3 (P < 0.01	1); I ² = 90%				[
	,	·						-4 -2 0 2 4 Survivors Non-survivors

Figure S8: Comparative meta-analysis of odds ratios of diabetes in Covid-19 patients with 95% CI

A) Favors mild-moderate vs severe-critical

	Mildune	lavatat		riti e e l	Mainht	Mainht	Odda Datia	Odda Batia
Study	Mild-mod		Events				Odds Ratio IV, Fixed + Random, 95% Cl	Odds Ratio IV, Fixed + Random, 95% Cl
Bicheng Zhang/2020/China	9	82		58	7.1%	8.4%		
Chaolin Huang/2020/China	7	28	-	13	1.5%	3.3%		<u>}</u>
Dawei Wang/2020/China	6	102		36	5.7%	7.6%		
Hongzhou Lu/2020/China	15	243	-	22	6.4%	8.0%		
Kunhua Li/2020/China	0	58	-	25	0.9%	2.1%		
Lei Liu/2020/China	0	44		7	0.8%	1.8%		
Man Huang/2020/China	5	142		55	5.6%	7.6%		
Mao/2020/China	15	126	-	88	12.3%	10.2%		- <u>1</u>
Qi/2020/China	14	217	12	50	10.3%	9.7%		
Qin/2020/China	2	53		35	2.8%	5.1%		
Wang/2020/China	8	59	10	57	7.2%	8.5%	0.74 [0.27; 2.03]	<u>+</u>
Wei-jie Guan/2020/China	53	926	28	173	30.5%	12.5%	0.31 [0.19; 0.51]	
Yanli Liu/ 2020/China96	1	56	11	53	1.7%	3.6%	0.07 [0.01; 0.56]	
Yudong/2020/China	19	96	4	16	4.8%	7.0%	0.74 0.21; 2.55	
Zhichao Feng/2020/China	6	126	2	15	2.5%	4.8%		-+-
Total (fixed effect, 95% CI)		2358		703	100.0%		0.34 [0.26; 0.44]	•
Total (random effects, 95% (Heterogeneity: Tau ² = 0.3664; Cl		f = 14	(P < 0.01)	$1^2 = 54$		100.0%	0.31 [0.20; 0.49]	· · · · · · · · · · · · · · · · · · ·
Theterogeneity. Tau = 0.0004, Or	ii = 50.55, t	a – 14	(1 ~ 0.01)	, i = 0-	1/0			0.001 0.1 1 10 1000

0.001 0.1 1 10 1000 Mild-moderate Severe-critical

	Sur	vivorst	Non-surv	vivors	Weight	Weight	Odds Ratio	Odds Ratio
Study	Events	Total	Events	Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Xu/2020/China	0	17	6	10	8.0%	20.7%	0.02 [0.00; 0.42]	
Lu/2020/China	8	92	6	31	56.5%	29.9%	0.40 [0.13; 1.25]	
Jin/2020/ China	0	1019	11	37	9.1%	21.7%	0.00 [0.00; 0.02]	
Xiaobo Yang/2020/China	2	22	7	30	26.4%	27.6%	0.33 [0.06; 1.77]	
Total (fixed effect, 95% Cl) Total (random effects, 95% Cl Heterogeneity: Tau ² = 4.3645; Chi ²		1150 df = 3 (F	^o < 0.01);		100.0% %	 100.0%	0.17 [0.07; 0.41] 0.06 [0.01; 0.58]	
		- (.						0.001 0.1 1 10 1000

0.001 0.1 1 10 1000 Survivors Non-survivors

Figure S9: Comparative meta-analysis of odds ratios of dyspnea in Covid-19 patients with 95% CI

A) Favors mild-moderate vs severe-critical

	Mild-mod	lerates	Severe-c	ritical	Weight	Weight	Odds Ratio	Odds Ratio
Study	Events	Total	Events	Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Bicheng Zhang/2020/China	20	82	24	58	20.5%	12.5%	0.46 [0.22; 0.94]	
Chaolin Huang/2020/China	10	28	12	13	2.3%	5.5%	0.05 [0.01; 0.41]	
Dawei Wang/2020/China	20	102	23	36	15.4%	11.9%	0.14 [0.06; 0.32]	
Hongzhou Lu/2020/China	1	243	4	22	2.1%	5.3%	0.02 [0.00; 0.18]	
Kunhua Li/2020/China	2	58	7	25	3.9%	7.5%	0.09 [0.02; 0.48]	
Man Huang/2020/China	13	142	17	55	16.6%	12.1%	0.23 [0.10; 0.51]	
Qi/2020/China	26	217	17	50	21.2%	12.6%	0.26 [0.13; 0.54]	
Qin/2020/China	0	53	27	35	1.3%	3.8%	0.00 [0.00; 0.05]	
Tian/2020/China	3	216	15	46	6.4%	9.3%	0.03 [0.01; 0.11]	-
Wenhua Liu/2020/China126	4	553	2	75	3.7%	7.3%	0.27 [0.05; 1.48]	
Yudong/2020/China	10	96	3	16	5.4%	8.7%	0.50 [0.12; 2.08]	<u>+</u> ∎+
Yu-Huan Xu/2020/China	0	37	4	13	1.2%	3.5%	0.03 [0.00; 0.57]	
Total (fixed effect, 95% CI)		1827		444	100.0%		0.19 [0.13; 0.26]	•
Total (random effects, 95% C Heterogeneity: Tau ² = 0.7365; Chi		lf = 11	(P < 0.01)	; I ² = 6	 7%	100.0%	0.13 [0.07; 0.24]	↑
/	· · · · ·			-				0.001 0.1 1 10 1000

0.001 0.1 1 10 1000 Mild-moderate Severe-critical

B) Favors survivor vs non-survivor

	Surv	vivors	lon-sur	/ivors	Weight	Weight	Odds Ratio	Odds Ratio
Study	Events	Total	Events	Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Xu/2020/China	1	17	10	10	4.4%	21.1%	0.00 [0.00; 0.12]	
Lu/2020/China	24	92	22	31	58.8%	40.3%	0.14 [0.06; 0.36]	
Xiaobo Yang/2020/China	14	22	19	30	36.8%	38.6%	1.01 [0.32; 3.18]	
Total (fixed effect, 95% CI)		131		71	100.0%	-	0.25 [0.13; 0.51]	+
Total (random effects, 95% Cl Heterogeneity: Tau ² = 2.6615; Chi		K - 0 //		12 - 05		100.0%	0.15 [0.02; 1.20]	
Heterogeneity: Tau = 2.6615; Chi	= 13.00, 0	ar = 2 (F	² < 0.01);	1 = 85	%			0.001 0.1 1 10 1000

Survivors Non-survivors

Figure S10: Comparative meta-analysis of odds ratios of diarrhea in Covid-19 patients with 95% CI

A) Favors mild-moderate vs severe-critical

	Mild-mod	lerates	Severe-c	ritical	Weight	Weight	Odds Ratio	Odds Ratio
Study			Events				IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Man Huang/2020/China	7	142	2	55	4.1%	4.1%	1.37 [0.28; 6.83]	
Zhichao Feng/2020/China	4	126	2	15	3.2%	3.2%	0.21 [0.04; 1.28]	
Wu/2020/China	0	14	2	7	1.0%	1.0%	0.08 [0.00; 1.84]	
Yanli Liu/ 2020/China96	6	56	6	53	7.2%	7.2%	0.94 [0.28; 3.12]	— # —
Ji/2020/China	3	34	0	15	1.1%	1.1%	3.44 [0.17; 70.93]	
Mao/2020/China	28	126	13	88	19.9%	19.9%	1.65 [0.80; 3.40]	
Qin/2020/China	2	53	1	35	1.8%	1.8%	1.33 [0.12; 15.29]	i=
Lei Liu/2020/China	4	44	0	7	1.1%	1.1%	1.67 [0.08; 34.28]	 _
Bicheng Zhang/2020/China	9	82	9	58	10.6%	10.6%	0.67 [0.25; 1.81]	— <mark>—</mark>
Wenhua Liu/2020/China126	9	553	3	75	5.9%	5.9%	0.40 [0.11; 1.50]	— •
Qi/2020/China	7	217	3	50	5.4%	5.4%	0.52 [0.13; 2.09]	
Hongzhou Lu/2020/China	17	243	0	22	1.3%	1.3%	3.48 [0.20; 59.77]	
Yudong/2020/China	13	96	2	16	4.1%	4.1%	1.10 [0.22; 5.39]	
Kunhua Li/2020/China	5	58	2	25	3.6%	3.6%	1.08 [0.20; 6.01]	
Wei-jie Guan/2020/China	32	926	10	173	19.6%	19.6%	0.58 [0.28; 1.21]	
Dawei Wang/2020/China	8	102	6	36	8.1%	8.1%	0.43 [0.14; 1.32]	
Chaolin Huang/2020/China	1	28	0	13	1.0%	1.0%	1.47 [0.06; 38.60]	l•
Young/2020/Singapore	3	12	0	6	1.1%	1.1%	4.79 [0.21; 109.19]	
Total (fixed effect, 95% CI)		2912		749	100.0%		0.81 [0.59; 1.12]	4
Total (random effects, 95% 0	CI)					100.0%	0.81 [0.59; 1.12]	
Heterogeneity: Tau ² = 0; Chi ² = 1	5.96, df = 17	(P=0	.53); I ² = (0%			- / -	
/								0.01 0.1 1 10 100

Mild-moderate Severe-critical

Study					Weight (fixed)	•	Odds Ratio IV, Fixed + Random, 95% CI	Odds Ratio IV, Fixed + Random, 95% Cl
Jin/2020/ China	0	1019	7	37	8.6%	47.6%	0.00 [0.00; 0.04]	
Jingwen Li/2020/China	16	96	9	65	91.4%	52.4%	1.24 [0.51; 3.02]	
Total (fixed effect, 95% CI)		1115		102	100.0%		0.72 [0.31; 1.67]	+
Total (random effects, 95% C Heterogeneity: Tau ² = 19.5260; Ch		df = 1	(P < 0.01)	; I ² = 9	 4%	100.0%	0.06 [0.00; 31.60]	

0.001 0.1 1 10 1000 Survivors Non-survivors

Figure S11: Comparative meta-analysis of odds ratios of fatigue in Covid-19 patients with 95% CI

A) Favors mild-moderate vs severe-critical

Mild-mod	erates	Severe-c	ritical	Weight	Weight	Odds Ratio	Odds Ratio
Events	Total	Events	Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
2	37	6	13	1.4%	2.8%	0.07 [0.01; 0.40]	
24	142	12	55	7.6%	10.0%	0.73 [0.34; 1.58]	
26	126	3	15	2.6%	4.7%	1.04 [0.27; 3.96]	
26	56	36	53	7.5%	9.9%	0.41 [0.19; 0.89]	
54	216	15	46	9.6%	11.4%	0.69 [0.35; 1.37]	
4	34	5	15	2.0%	3.9%	0.27 [0.06; 1.19]	
16	44	6	7	0.9%	2.0%	0.10 [0.01; 0.86]	
51	82	39	58	9.1%	11.1%	0.80 [0.40; 1.63]	
38	553	4	75	4.1%	6.7%	1.31 [0.45; 3.78]	
170	217	38	50	8.7%	10.8%	1.14 [0.55; 2.36]	
60	243	7	22	5.1%	7.8%	0.70 [0.27; 1.80]	
350	926	69	173	41.4%	19.0%	0.92 [0.66; 1.28]	
					 100.0%	0.77 [0.62; 0.95] 0.69 [0.50; 0.95]	
= 18.56, 0	1 = 11	(P = 0.07)	;1 = 4	1%			0.1 0.51 2 10
	Events 2 24 26 26 54 4 16 51 38 170 60 350	Events Total 2 37 24 142 26 126 26 56 54 216 4 34 16 44 51 82 38 553 170 217 60 243 350 926 10 2476	Events Total Events 2 37 6 24 142 12 26 126 3 26 56 36 54 216 15 4 34 5 16 44 6 51 82 39 38 553 4 170 217 38 60 243 7 350 926 69 2676 1)	Events Total Events Total 2 37 6 13 24 142 12 55 26 126 3 15 26 56 36 53 54 216 15 46 4 34 5 15 16 44 6 7 51 82 39 58 38 553 4 75 170 217 38 50 60 243 7 22 350 926 69 173 2676 582	2 37 6 13 1.4% 24 142 12 55 7.6% 26 126 3 15 2.6% 26 56 36 53 7.5% 54 216 15 46 9.6% 4 34 5 15 2.0% 16 44 6 7 0.9% 51 82 39 58 9.1% 38 553 4 75 4.1% 170 217 38 50 8.7% 60 243 7 22 5.1% 350 926 69 173 41.4% 2676 582 100.0% 582	Events Total Events Total (fixed) (random) 2 37 6 13 1.4% 2.8% 24 142 12 55 7.6% 10.0% 26 126 3 15 2.6% 4.7% 26 56 36 53 7.5% 9.9% 54 216 15 46 9.6% 11.4% 4 34 5 15 2.0% 3.9% 16 44 6 7 0.9% 2.0% 51 82 39 58 9.1% 11.1% 38 553 4 75 4.1% 6.7% 170 217 38 50 8.7% 10.8% 350 926 69 173 41.4% 19.0% 2676 582 100.0% 1) 100.0% 100.0% <td>Events Total Events Total (fixed) (random) IV, Fixed + Random, 95% CI 2 37 6 13 1.4% 2.8% 0.07 [0.01; 0.40] 24 142 12 55 7.6% 10.0% 0.73 [0.34; 1.58] 26 126 3 15 2.6% 4.7% 1.04 [0.27; 3.96] 26 56 36 53 7.5% 9.9% 0.41 [0.19; 0.89] 54 216 15 46 9.6% 11.4% 0.69 [0.35; 1.37] 4 34 5 15 2.0% 3.9% 0.27 [0.06; 1.19] 16 44 6 7 0.9% 2.0% 0.10 [0.01; 0.86] 51 82 39 58 9.1% 11.1% 0.80 [0.40; 1.63] 38 553 4 75 4.1% 6.7% 1.31 [0.45; 3.78] 170 217 38 50 8.7% 10.8% 1.14 [0.55; 2.36] 60 243</td>	Events Total Events Total (fixed) (random) IV, Fixed + Random, 95% CI 2 37 6 13 1.4% 2.8% 0.07 [0.01; 0.40] 24 142 12 55 7.6% 10.0% 0.73 [0.34; 1.58] 26 126 3 15 2.6% 4.7% 1.04 [0.27; 3.96] 26 56 36 53 7.5% 9.9% 0.41 [0.19; 0.89] 54 216 15 46 9.6% 11.4% 0.69 [0.35; 1.37] 4 34 5 15 2.0% 3.9% 0.27 [0.06; 1.19] 16 44 6 7 0.9% 2.0% 0.10 [0.01; 0.86] 51 82 39 58 9.1% 11.1% 0.80 [0.40; 1.63] 38 553 4 75 4.1% 6.7% 1.31 [0.45; 3.78] 170 217 38 50 8.7% 10.8% 1.14 [0.55; 2.36] 60 243

0.1 0.51 2 10 Mild-moderate Severe-critical

Study					Weight (fixed)		Odds Ratio V Fixed + Random 95% CI	Odds Ratio IV, Fixed + Random, 95% Cl
Lu/2020/China	61	92	24	31	33.8%	34.4%	0.57 [0.22: 1.48]	
Jingwen Li/2020/China	45	96	56	65	46.2%	38.2%	0.14 [0.06; 0.32]	
Xiaobo Yang/2020/China	5	22	13	30	20.0%	27.4%	0.38 [0.11; 1.32]	
Total (fixed effect, 95% CI)		210		126	100.0%		0.28 [0.16; 0.48]	-
Total (random effects, 95% CI)					100.0%	0.30 [0.12: 0.75]	
Heterogeneity: Tau ² = 0.3959; Chi ²		= 2 (P	= 0.08); I ²	= 61%	ó		• / •	



Figure S12: Comparative meta-analysis of odds ratios of fever in Covid-19 patients with 95% CI

A) Favors mild-moderate vs severe-critical

	Mild-mod	lerates	Severe-c	ritical	Weight	Weight	Odds Ratio	Odds Ratio
Study			Events				IV, Fixed + Random, 95% CI	
Man Huang/2020/China	74	142	37	55	8.5%	8.3%		
Cao/2020/China	96	107	19	21	1.4%	3.6%	0.92 0.19; 4.48]	
Zhichao Feng/2020/China	92	126	13	15	1.5%	3.7%	0.42 0.09; 1.94	
Wu/2020/China	10	14	7	7	0.4%	1.2%	0.16 0.01; 3.35	
Yanli Liu/ 2020/China96	48	56	42	53	3.6%	6.1%	1.57 [0.58; 4.27]	
Tian/2020/China	178	216	37	46	5.5%	7.3%	1.14 0.51; 2.56]	
Ji/2020/China	28	34	11	15	1.7%	4.1%	1.70 0.40; 7.20]	
Mao/2020/China	92	126	40	88	10.9%	8.8%	3.25 1.83; 5.77]	
Shang/2020/China	182	226	131	139	5.8%	7.4%	0.25 0.12; 0.55	— — —
Qin/2020/China	51	53	35	35	0.4%	1.3%	0.29 [0.01; 6.23]	
Lei Liu/2020/China	37	44	6	7	0.7%	2.1%	0.88 [0.09; 8.49]	
Bicheng Zhang/2020/China	59	82	51	58	4.2%	6.5%	0.35 [0.14; 0.89]	
Wenhua Liu/2020/China126	432	553	59	75	10.4%	8.7%	0.97 [0.54; 1.74]	
Qi/2020/China	186	217	39	50	6.1%	7.5%	1.69 [0.78; 3.65]	
Hongzhou Lu/2020/China	200	243	20	22	1.6%	3.9%	0.47 [0.10; 2.06]	
Yudong/2020/China	85	96	16	16	0.4%	1.4%	0.23 [0.01; 4.01]	
Kunhua Li/2020/China	50	58	22	25	1.8%	4.2%	0.85 [0.21; 3.52]	
Wei-jie Guan/2020/China	391	926	82	173	33.9%	10.4%	0.81 [0.59; 1.12]	
Dawei Wang/2020/China	100	102	36	36	0.4%	1.3%	0.55 [0.03; 11.74]	
Chaolin Huang/2020/China	27	28	13	13	0.3%	1.1%	0.68 [0.03; 17.80]	
Young/2020/Singapore	7	12	6	6	0.4%	1.2%	0.10 [0.00; 2.28]	
Total (fixed effect, 95% CI)		3461		955	100.0%		0.89 [0.73; 1.07]	
Total (random effects, 95% C	I)				-	100.0%	0.80 [0.56; 1.15]	+
Heterogeneity: Tau ² = 0.3046; Chi		f = 20 (P < 0.01)	$ ^2 = 58$	3%		- / -	
o j i i j -								0.01 0.1 1 10 100

Mild-moderate Severe-critical

	Surv	vivors	lon-surv	vivors	Weight	Weight	Odds Ratio	Odds Ratio
Study	Events	Total	Events	Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Xu/2020/China	15	17	6	10	8.8%	16.9%	5.00 [0.72; 34.92]	
Shang/2020/China	313	365	46	51	35.5%	26.4%	0.65 [0.25; 1.72]	
Lu/2020/China	69	92	29	31	14.6%	20.9%	0.21 [0.05; 0.94]	
Jingwen Li/2020/China	60	96	59	65	38.0%	26.8%	0.17 [0.07; 0.43]	
Xiaobo Yang/2020/China	22	22	29	30	3.2%	9.0%	2.29 [0.09; 58.85]	
Total (fixed effect, 95% CI)	N	592		187	100.0%	 100.0%	0.41 [0.23; 0.73]	-
Total (random effects, 95% C Heterogeneity: Tau ² = 1.0567; Chi		lf = 4 (F	P = 0.01);	l ² = 689	%	100.0%	0.57 [0.18; 1.79]	0.1 0.51 2 10



Figure S13: Comparative meta-analysis of odds ratios of hypertension in Covid-19 patients with 95% CI

A) Favors mild-moderate vs severe-critical

	Mild-mod	lorato	Severe c	ritical	Weight	Weight	Odds Ratio	Odds Ratio
Study			Events				IV, Fixed + Random, 95% CI	
Man Huang/2020/China	12	142		55	4.5%	6.7%		
Zhichao Feng/2020/China	15	126	6	15	3.5%	6.0%	0.20 [0.06; 0.65]	
Yanli Liu/ 2020/China96	16	56	21	53	7.5%	8.3%	0.61 0.27; 1.36	— ;= +
Wang/2020/China	23	59	20	57	8.4%	8.6%	1.18 0.56; 2.51	} ⊢
Mao/2020/China	19	126	32	88	11.2%	9.4%	0.31 0.16; 0.60	-
Qin/2020/China	3	53	12	35	2.6%	5.0%	0.11 [0.03; 0.45]	į
Lei Liu/2020/China	3	44	1	7	0.8%	2.2%	0.44 [0.04; 4.94]	
Bicheng Zhang/2020/China	20	82	22	58	8.9%	8.8%	0.53 [0.25; 1.10]	_
Qi/2020/China	17	217	3	50	3.0%	5.4%	1.33 [0.37; 4.73]	÷
Hongzhou Lu/2020/China	42	243	10	22	5.9%	7.6%	0.25 0.10; 0.62	
Yudong/2020/China	82	96	10	16	3.6%	6.0%	3.51 [1.10; 11.21]	ļ -
Kunhua Li/2020/China	3	58	2	25	1.4%	3.3%	0.63 [0.10; 4.01]	i•
Wei-jie Guan/2020/China	124	926	41	173	30.2%	11.2%	0.50 [0.33; 0.74]	
Dawei Wang/2020/China	22	102	21	36	7.2%	8.2%	0.20 [0.09; 0.44]	i
Chaolin Huang/2020/China	4	28	2	13	1.4%	3.3%	0.92 [0.15; 5.78]	
Total (fixed effect, 95% CI)		2358		703	100.0%		0.49 [0.40; 0.61]	4
Total (random effects, 95% C Heterogeneity: Tau ² = 0.3128; Ch		f = 14	(P < 0.01)	$ ^2 = 6$	 1%	100.0%	0.51 [0.34; 0.75]	→
Hotorogeneity: rad eterize, et			(, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,. v				01 051 2 10

0.1 0.5 1 2 10 Mild-moderate Severe-critical

	Surv	vivors	lon-surv	vivors	Weight	Weight	Odds Ratio		Od	ds Ra	atio	
Study	Events	Total	Events	Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fi	xed +	Rand	om, 95	% CI
Xu/2020/China	1	17	5	10	9.1%	20.9%	0.06 [0.01; 0.67]			-		
Lu/2020/China	4	92	15	31	34.1%	37.2%	0.05 [0.01; 0.17]	+	+			
Jin/2020/ China	8	1019	18	37	56.8%	41.9%	0.01 [0.00; 0.02]	-				
Total (fixed effect, 95% CI)		1128		78	100.0%		0.02 [0.01; 0.04]	-	•			
Total (random effects, 95% C			_			100.0%	0.02 [0.01; 0.10]					
Heterogeneity: Tau ² = 0.9846; Chi	² = 6.09, df	= 2 (P	= 0.05); l ²	² = 67%				1	1	1	1	
								0.01	0.1	1	10	100

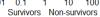


Figure S14: Comparative meta-analysis of standardized mean difference of LDH in Covid-19 patients with 95% CI

A) Favors mild-moderate vs severe-critical

Ctudu .	Mild-moderate Mean SD			Weight	Weight	Std. Mean Difference	Std. Mean Difference
Study						V, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Yanli Liu/ 2020/China96	219.67 63.92		53	11.0%	9.7%	-0.56 [-0.94; -0.17]	
Ji/2020/China	215.80 67.30	34 324.50 134.40	15	3.8%	9.3%	-1.16 [-1.81; -0.50]	
Mao/2020/China	375.17 679.07	126 394.73 661.60	88	21.7%	9.9%	-0.03 [-0.30; 0.24]	1 🕶
Shang/2020/China	221.69 59.14	226 260.37 75.95	139	34.7%	9.9%	-0.58 [-0.80; -0.37]	🛨
Lei Liu/2020/China	221.00 18.68	44 295.34 13.78	7	1.2%	8.0%	-4.03 [-5.17; -2.89]	
Hongzhou Lu/2020/China	232.16 62.27	243 374.66 128.38	22	7.3%	9.6%	-2.03 [-2.50; -1.56]	
Yudong/2020/China	296.67 109.14	96 334.50 141.84	16	5.7%	9.5%	-0.33 [-0.86; 0.20]	
Min/2020/China	160.00 30.00	26 528.00 261.00	4	0.7%	7.0%	-3.98 [-5.49; -2.47]	
Dawei Wang/2020/China	224.67 90.24	102 444.33 226.99	36	9.0%	9.7%	-1.57 [-2.00; -1.15]	
Chaolin Huang/2020/China	290.33 96.86	28 433.67 211.79	13	3.3%	9.2%	-0.99 [-1.68; -0.29]	
Young/2020/Singapore	470.25 141.59	12 602.00 110.80	6	1.5%	8.3%	-0.95 [-1.99; 0.10]	
Total (fixed effect, 95% CI)		993	399 f	100.0%		-0.75 [-0.87; -0.62]	•
Total (random effects, 95% CI)					100.0%	-1.37 [-2.10; -0.64]	+
Prediction interval						[-4.17; 1.42]	
Heterogeneity: Tau ² = 1.3884; Chi ²	= 127.18, df = 10	(P < 0.01); I ² = 92%				. / .	
	,						-4 -2 0 2 4
							Mild-moderate Severe-critical

	Survivor	s No	n-survivors		Weight	Weight	Std. Mean Difference	Std. Mean Difference
Study	Mean SE) Total M	ean SD	Total	(fixed)	(random)	IV, Fixed + Random, 95% C	I IV, Fixed + Random, 95% CI
Shang/2020/China	236.42 68.5	365 39	.33 238.01	51	52.5%	50.2%	-1.48 [-1.79; -1.17]	- i
Jingwen Li/2020/China	369.86 682.74	96 82	0.22 479.39	65	47.5%	49.8%	-0.75 [-1.08; -0.43]	- <mark></mark>
Total (fixed effect, 95% CI) Total (random effects, 95% C Heterogeneity: Tau ² = 0.2368; Chi		461 ² < 0.01); I ² :	- 90%	116	100.0% 	 100.0%	-1.13 [-1.36; -0.91] -1.12 [-1.83; -0.40]	
								-1.5 -1 -0.5 0 0.5 1 1.5 Survivors Non-survivors

Figure S15: Comparative meta-analysis of standardized mean difference of lymphocytic count in Covid-19 patients with 95% CI

A) Favors severe-critical vs mild-moderate

	Severe-critical	Milo	l-moderate		Weight	Weight	Std. Mean Difference	Std. Mean Difference
Study	Mean SD	Total	Mean SD	Total	(fixed)	(random) IV	V, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Cao/2020/China	1.38 0.68	107	0.67 0.46	21	3.1%	5.4%	1.09 [0.60; 1.57]	
Zhichao Feng/2020/China	1.20 0.60	126	0.77 0.33	15	2.5%	4.8%	0.75 [0.20; 1.29]	— •
Hui/2020/China	1.28 0.20	32	1.13 0.47	7	1.1%	2.8%	0.55 [-0.28; 1.37]	
Yanli Liu/ 2020/China96	1.07 0.46	56	0.73 0.53	53	4.8%	6.6%	0.68 [0.29; 1.06]	
Ji/2020/China	1.62 0.70	34	0.92 0.50	15	1.7%	4.0%	1.06 [0.42; 1.71]	
Mao/2020/China	1.53 1.65	126	1.20 1.88	88	9.7%	8.0%	0.19 [-0.08; 0.46]	+ -∦
Shang/2020/China	1.13 0.52	226	1.00 0.45	139	16.1%	8.8%	0.27 [0.06; 0.48]	l l l l l l l l l l l l l l l l l l l
Cai/2020/China	1.37 0.60	240	0.94 0.41	58	8.4%	7.8%	0.75 [0.46; 1.05]	
Deng/2020/China	1.50 0.60	19	1.03 1.32	95	3.0%	5.3%	0.38 [-0.12; 0.87]	
Bicheng Zhang/2020/China	0.85 0.12	82	0.73 0.38	58	6.2%	7.1%	0.46 [0.12; 0.80]	
Hongzhou Lu/2020/China	1.20 0.44	243	0.73 0.39	22	3.6%	5.8%	1.07 [0.63; 1.52]	
Yudong/2020/China	1.00 0.44	96	0.67 0.49	16	2.5%	4.9%	0.73 [0.19; 1.27]	—] •
Kunhua Li/2020/China	1.19 0.37	58	0.70 0.40	25	2.8%	5.2%	1.28 [0.77; 1.79]	
Wei-jie Guan/2020/China	1.07 0.45	926	0.80 0.30	173	26.8%	9.4%	0.63 [0.46; 0.79]	🗮
Min/2020/China	1.13 0.43	26	0.60 0.17	4	0.6%	1.8%	1.26 [0.15; 2.36]	
Dawei Wang/2020/China	0.90 0.45	102	0.73 0.31	36	4.9%	6.6%	0.40 [0.02; 0.79]	
Chaolin Huang/2020/China	0.93 0.31	28	0.47 0.50	13	1.4%	3.5%	1.21 [0.49; 1.92]	
Young/2020/Singapore	1.20 0.24	12	1.18 0.35	6	0.8%	2.2%	0.08 [-0.90; 1.06]	
Total (fixed effect, 95% CI)		2539		844	100.0%		0.58 [0.49; 0.66]	
Total (random effects, 95%	CI)					100.0%	0.66 0.50; 0.83	↓ ◆
Prediction interval							[0.09; 1.24]	
Heterogeneity: Tau ² = 0.0671; C	hi ² = 44.33, df = 1	17 (P <	0.01 ; $l^2 = 62$	%			-	
								-2 -1 0 1 2
								Severe-critical Mild-moderate

B) Favors non-survivor vs survivor

	Non-survivors	s	Survivors		Weight	Weight	Std. Mean Difference	Std. Mean Difference
Study	Mean SD	Total M	lean SD	Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Shang/2020/China	1.08 0.50	365 (0.67 0.38	51	35.8%	23.1%	0.85 [0.55; 1.15]	
Lu/2020/China	0.91 0.41	92 (0.70 0.36	31	18.8%	21.7%	0.52 [0.11; 0.94]	- # -
Jingwen Li/2020/China	2.47 4.47	96 3	3.17 6.76	65	32.2%	23.0%	-0.13 [-0.44; 0.19]	
Dawei Wang/2020/China	1.03 0.22	28 (0.62 0.23	5	2.8%	12.5%	1.85 [0.78; 2.91]	· · · · · · · · · · · · · · · · · · ·
Xiaobo Yang/2020/China	0.73 0.38	22	0.62 0.39	30	10.4%	19.7%	0.28 [-0.27; 0.83]	
Total (fixed effect, 95% CI) Total (random effects, 95%	CIV	603		182	100.0%	 100.0%	0.44 [0.26; 0.62] 0.57 [0.04; 1.10]	+
Prediction interval	CI)					100.0%	[-1.37; 2.50]	
Heterogeneity: $Tau^2 = 0.2963$; C	2 = 26.07 df = 4		$(1) 1^2 = 0.50/$				[-1.37, 2.50]	
Helerogeneity. Tau = 0.2963, C	-20.87, 01 - 2	F (P < 0.0	1),1 - 85%					-2 -1 0 1 2
								-2 -1 0 1 2
								Non-survivors Survivors

Figure S16: Comparative meta-analysis of standardized mean difference of neutrophilic count in Covid-19 patients with 95% CI

A) Favors mild-moderate vs severe-critical

	Mild-moderate	S	evere-c	ritical		Weight	Weight	Std. Mean Difference	Std. Mean Difference
Study	Mean SD	Total	Mean	SD	Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Zhichao Feng/2020/China	3.30 1.57	126	3.67	2.13	15	4.7%	7.3%	-0.22 [-0.76; 0.31]	
Yanli Liu/ 2020/China96	3.27 1.37	56	4.77	3.05	53	9.1%	10.3%	-0.64 [-1.02; -0.25]	
Mao/2020/China	5.03 8.32	126	7.50	14.09	88	18.2%	13.1%	-0.22 [-0.50; 0.05]	
Shang/2020/China	2.73 1.41	226	3.20	1.41	139	30.0%	14.7%	-0.33 [-0.54; -0.12]	
Deng/2020/China	3.50 2.10	19	6.34	4.07	95	5.4%	7.9%	-0.74 [-1.24; -0.24]	— — —
Lei Liu/2020/China	3.75 0.72	44	6.10	4.32	7	1.9%	3.9%	-1.40 [-2.24; -0.55]	
Hongzhou Lu/2020/China	2.96 1.11	243	3.60	1.66	22	7.0%	9.1%	-0.55 [-0.99; -0.11]	
Yudong/2020/China	4.71 2.77	96	5.30	2.58	16	4.8%	7.4%	-0.21 [-0.74; 0.32]	
Kunhua Li/2020/China	3.53 1.38	58	4.52	3.51	25	6.0%	8.4%	-0.44 [-0.91; 0.04]	
Dawei Wang/2020/China	2.83 1.50	102	5.03	4.09	36	8.7%	10.0%	-0.89 [-1.29; -0.50]	
Chaolin Huang/2020/China	4.17 3.20	28	9.13	5.65	13	2.7%	5.0%	-1.18 [-1.89; -0.47]	
Young/2020/Singapore	2.70 1.16	12	2.12	0.98	6	1.4%	3.0%	0.49 [-0.50; 1.49]	•
Total (fixed effect, 95% CI)		1136			515	100.0%		-0.45 [-0.57; -0.34]	•
Total (random effects, 95%	CI)						100.0%	-0.51 [-0.70; -0.32]	◆
Prediction interval Heterogeneity: Tau ² = 0.0504; C	hi ² = 24.93, df =	11 (P <	0.01): 1	² = 56%	,			[-1.05; 0.04]	
			,,						-2 -1 0 1 2
									Mild-moderate Severe-critical

	Survi	ivors	N	on-surv	vivors		Weight	Weight	Std. Mean Difference	Std. Mean Difference
Study	Mean	SD	Total	Mean	SD	Total	(fixed)	(random)	V, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Shang/2020/China	2.91	1.43	365	5.07	4.42	51	36.0%	21.9%	-1.06 [-1.36; -0.75]	e e e e e e e e e e e e e e e e e e e
Lu/2020/China	5.10	8.40	92	8.10	5.90	31	19.5%	21.3%	-0.38 [-0.79; 0.03]	i i i i i i i i i i i i i i i i i i i
Jingwen Li/2020/China	4.92	7.98	96	9.76	14.84	65	32.3%	21.8%	-0.43 [-0.75; -0.11]	
Dawei Wang/2020/China	4.12	1.10	28	9.40	3.54	5	2.1%	14.7%	-3.15 [-4.40; -1.90]	II
Xiaobo Yang/2020/China	6.90	4.90	22	10.20	4.50	30	10.2%	20.3%	-0.70 [-1.26; -0.13]	
Total (fixed effect, 95% CI)			603			182	100.0%		-0.73 [-0.91; -0.55]	•
Total (random effects, 95% CI) Prediction interval								100.0%	-1.01 [-1.83; -0.20]	
Heterogeneity: Tau ² = 0.7687; Chi ²	05.40			2	0.49/				[-4.10; 2.08]	
Heterogeneity. rau = 0.7687; Chi	- 25.18	, ai = 4	+ (P < (J.UT); T	- 84%					-4 -2 0 2 4
										-4 -2 0 2 4 Survivors Non-survivors

Figure S17: Comparative meta-analysis of standardized mean difference of neutrophilic count in Covid-19 patients with 95% CI

A) Favors mild-moderate vs severe-critical

	Mild-moderate	Se	evere-c	ritical		Weight	Weight	Std. Mean Difference	Std. Mean Difference
Study	Mean SD	Total	Mean	SD	Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Zhichao Feng/2020/China	3.30 1.57	126	3.67	2.13	15	4.7%	7.3%	-0.22 [-0.76; 0.31]	
Yanli Liu/ 2020/China96	3.27 1.37	56	4.77	3.05	53	9.1%	10.3%	-0.64 [-1.02; -0.25]	— — —
Mao/2020/China	5.03 8.32	126	7.50	14.09	88	18.2%	13.1%	-0.22 [-0.50; 0.05]	
Shang/2020/China	2.73 1.41	226	3.20	1.41	139	30.0%	14.7%	-0.33 [-0.54; -0.12]	
Deng/2020/China	3.50 2.10	19	6.34	4.07	95	5.4%	7.9%	-0.74 [-1.24; -0.24]	— — —
Lei Liu/2020/China	3.75 0.72	44	6.10	4.32	7	1.9%	3.9%	-1.40 [-2.24; -0.55]	
Hongzhou Lu/2020/China	2.96 1.11	243	3.60	1.66	22	7.0%	9.1%	-0.55 [-0.99; -0.11]	
Yudong/2020/China	4.71 2.77	96	5.30	2.58	16	4.8%	7.4%	-0.21 [-0.74; 0.32]	
Kunhua Li/2020/China	3.53 1.38	58	4.52	3.51	25	6.0%	8.4%	-0.44 [-0.91; 0.04]	
Dawei Wang/2020/China	2.83 1.50	102	5.03	4.09	36	8.7%	10.0%	-0.89 [-1.29; -0.50]	
Chaolin Huang/2020/China	4.17 3.20	28	9.13	5.65	13	2.7%	5.0%	-1.18 [-1.89; -0.47]	
Young/2020/Singapore	2.70 1.16	12	2.12	0.98	6	1.4%	3.0%	0.49 [-0.50; 1.49]	•
Total (fixed effect, 95% CI)		1136			515	100.0%		-0.45 [-0.57; -0.34]	•
Total (random effects, 95%	CI)						100.0%	-0.51 [-0.70; -0.32]	◆
Prediction interval Heterogeneity: Tau ² = 0.0504; C	hi ² = 24.93, df = 1	11 (P <	0.01): 1	² = 56%				[-1.05; 0.04]	
3 ,	,	×*	-77 -						-2 -1 0 1 2
									Mild-moderate Severe-critical

	Survi	ivors	N	on-surv	vivors		Weight	Weight	Std. Mean Difference	Std. Mean Difference
Study	Mean	SD	Total	Mean	SD	Total	(fixed)	(random)	V, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Shang/2020/China	2.91	1.43	365	5.07	4.42	51	36.0%	21.9%	-1.06 [-1.36; -0.75]	e e e e e e e e e e e e e e e e e e e
Lu/2020/China	5.10	8.40	92	8.10	5.90	31	19.5%	21.3%	-0.38 [-0.79; 0.03]	i i i i i i i i i i i i i i i i i i i
Jingwen Li/2020/China	4.92	7.98	96	9.76	14.84	65	32.3%	21.8%	-0.43 [-0.75; -0.11]	
Dawei Wang/2020/China	4.12	1.10	28	9.40	3.54	5	2.1%	14.7%	-3.15 [-4.40; -1.90]	II
Xiaobo Yang/2020/China	6.90	4.90	22	10.20	4.50	30	10.2%	20.3%	-0.70 [-1.26; -0.13]	
Total (fixed effect, 95% CI)			603			182	100.0%		-0.73 [-0.91; -0.55]	•
Total (random effects, 95% CI) Prediction interval								100.0%	-1.01 [-1.83; -0.20]	
Heterogeneity: Tau ² = 0.7687; Chi ²	05.40			2	0.49/				[-4.10; 2.08]	
Heterogeneity. rau = 0.7687; Chi	- 25.18	, ai = 4	+ (P < (J.UT); T	- 84%					-4 -2 0 2 4
										-4 -2 0 2 4 Survivors Non-survivors

Figure S18: Comparative meta-analysis of standardized mean difference of WBCs counts in Covid-19 patients with 95% CI

A) Favors mild-moderate vs severe-critical

	Mild-mod						Weight	Weight	Std. Mean Difference	Std. Mean Difference
Study	Mean	SD	Total	Mean	SD	Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Cao/2020/China	6.57	4.98	107	11.85	5.35	21	3.3%	5.9%	-1.04 [-1.53; -0.56]	
Zhichao Feng/2020/China	4.73	2.17	126	4.97	3.03	15	2.7%	5.6%	-0.10 [-0.64; 0.43]	
Hui/2020/China	4.37	1.68	32	7.88	9.49	7	1.1%	3.9%	-0.83 [-1.68; 0.01]	
Yanli Liu/ 2020/China96	4.97	1.83	56	5.97	2.66	53	5.3%	6.5%	-0.44 [-0.82; -0.06]	
Ji/2020/China	4.80	1.20	34	5.50	2.80	15	2.1%	5.1%	-0.38 [-0.99; 0.24]	
Mao/2020/China	8.10	12.14	126	8.63	15.30	88	10.4%	7.2%	-0.04 [-0.31; 0.23]	+
Shang/2020/China	4.50	1.63	226	4.67	1.48	139	17.2%	7.5%	-0.11 [-0.32; 0.11]	
Deng/2020/China	5.50	2.60	19	7.81	3.94	95	3.1%	5.8%	-0.61 <mark>[</mark> -1.11; -0.11]	
Lei Liu/2020/China	5.53	0.79	44	6.63	4.59	7	1.2%	4.0%	-0.62 [-1.42; 0.19]	
Bicheng Zhang/2020/China	4.90	0.46	82	6.10	3.80	58	6.6%	6.8%	-0.48 [-0.82; -0.14]	
Hongzhou Lu/2020/China	4.76	1.34	243	5.06	2.45	22	4.0%	6.2%	-0.20 [-0.64; 0.23]	
Yudong/2020/China	6.20	2.81	96	6.48	2.99	16	2.7%	5.6%	-0.10 [-0.63; 0.43]	
Kunhua Li/2020/China	5.26	1.60	58	5.77	2.83	25	3.5%	6.0%	-0.25 [-0.72; 0.22]	
Wei-jie Guan/2020/China	4.90	1.63	926	4.30	2.39	173	29.0%	7.7%	0.34 [0.18; 0.50]	
Min/2020/China	4.00	1.50	26	11.30	4.90	4	0.4%	2.1%	-3.32 [-4.70; -1.93]	
Dawei Wang/2020/China	4.33	1.58	102	6.67	4.79	36	5.0%	6.5%	-0.83 [-1.23; -0.44]	
Chaolin Huang/2020/China	5.47	3.52	28	9.73	5.23	13	1.6%	4.6%	-1.02 [-1.71; -0.32]	
Young/2020/Singapore	4.30	1.40	12	3.80	1.25	6	0.8%	3.2%	0.35 [-0.64; 1.34]	
Total (fixed effect, 95% CI) Total (random effects, 95% (CI)		2343			793	100.0%	 100.0%	-0.15 [-0.23; -0.06] -0.42 [-0.65; -0.18]	•
Prediction interval Heterogeneity: Tau ² = 0.1732; Cl		l, df = 1	17 (P <	0.01); l ²	² = 83%				[-1.33; 0.50]	┌──┬──┼ ──┐
										-4 -2 0 2 4

-4 -2 0 2 4 Mild-moderate Severe-critical

	Survivor	s No	n-survivo	rs	Weight	Weight	Std. Mean Difference	Std. Mean Difference
Study	Mean SI) Total	Mean	D Tota	(fixed)	(random)	V, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Shang/2020/China	4.56 1.5	7 365	6.13 4.	35 51	36.9%	26.9%	-0.74 [-1.04; -0.44]	en e
Lu/2020/China	5.60 2.8) 92	9.30 6.	10 31	18.1%	22.2%	-0.95 [-1.37; -0.52]	
Jingwen Li/2020/China	6.13 7.6) 96	10.81 14.	24 65	32.2%	26.1%	-0.43 [-0.75; -0.11]	
Dawei Wang/2020/China	5.35 1.4	3 28	9.67 3.	46 5	2.6%	7.2%	-2.31 [-3.43; -1.19]	[
Xiaobo Yang/2020/China	7.90 4.8) 22	11.00 4.	80 30	10.2%	17.5%	-0.64 [-1.20; -0.07]	-
Total (fixed effect, 95% CI) Total (random effects, 95% CI))	603		182	100.0%	 100.0%	-0.71 [-0.89; -0.53] -0.80 [-1.14; -0.46]	•
Prediction interval Heterogeneity: Tau ² = 0.0889; Chi ²	= 12.03, df =	4 (P = 0	.02); I ² = 67	%			[-1.90; 0.30]	
								-3 -2 -1 0 1 2 3 Survivors Non-survivors

Figure S19: Comparative meta-analysis of standardized mean difference of platelet counts in Covid-19 patients with 95% CI

A) Favors severe-critical vs mild-moderate

	Severe-critical	Mild-mode	rate	Weight	Weight	Std. Mean Difference	Std. Mean Difference
Study	Mean SD	Total Mean	SD Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Cao/2020/China	261.88 131.90	107 172.76 120	0.70 21	5.4%	9.5%	0.68 [0.21; 1.16]	 •
Zhichao Feng/2020/China	188.77 78.05	126 162.43 86	6.53 15	4.2%	8.5%	0.33 [-0.21; 0.87]	
Ji/2020/China	171.30 47.50	34 196.40 62	2.70 15	3.2%	7.4%	-0.47 [-1.09; 0.14]	
Mao/2020/China	281.33 405.72	126 266.17 420	0.57 88	16.4%	13.1%	0.04 [-0.24; 0.31]	
Deng/2020/China	225.50 92.40	19 225.26 10	0.32 95	5.0%	9.2%	0.00 [-0.49; 0.49]	_
Lei Liu/2020/China	190.00 22.33	44 163.67 68	8.89 7	1.8%	5.3%	0.81 0.00; 1.63	
Hongzhou Lu/2020/China	179.33 57.42	243 163.00 70	0.53 22	6.4%	10.1%	0.28 [-0.16; 0.72]	
Wei-jie Guan/2020/China	174.33 54.23	926 138.33 59	9.86 173	45.0%	14.9%	0.65 [0.49; 0.82]	
Dawei Wang/2020/China	159.33 47.38	102 154.33 64	4.08 36	8.4%	11.1%	0.10 [-0.28; 0.48]	
Chaolin Huang/2020/China	181.00 103.11	28 208.00 8	1.39 13	2.8%	6.8%	-0.27 [-0.93; 0.39]	
Young/2020/Singapore	164.75 25.99	12 161.25 39	9.40 6	1.3%	4.0%	0.11 [-0.87; 1.09]	
Total (fixed effect, 95% CI)		1767	491	100.0%		0.37 [0.26; 0.48]	•
Total (random effects, 95% CI)					100.0%	0.23 [0.00; 0.45]	-
Prediction interval						[-0.47; 0.93]	
Heterogeneity: Tau ² = 0.0827; Chi ²	= 35.25, df = 10 ($P < 0.01$); $I^2 = 72\%$				- / -	
							-1.5 -1 -0.5 0 0.5 1 1.5

Severe-critical Mild-moderate

B) Favors non-survivor vs survivor

	Non-survivor	•	Survivors	Weight	Weight	Std. Mean Difference	Std. Mean Difference	
Study	Mean SI) Total N	/lean SD	Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Lu/2020/China	198.60 73.8) 92 13	35.00 42.40	31	29.4%	33.6%	0.94 [0.51; 1.36]	-
Jingwen Li/2020/China	242.50 321.3	3 96 20	5.66 322.21	65	53.3%	35.6%	0.11 [-0.20; 0.43]	#
Xiaobo Yang/2020/China	165.00 73.0) 22 18	6.00 72.00	30	17.3%	30.8%	-0.29 [-0.84; 0.27]	
Total (fixed effect, 95% Cl) Total (random effects, 95% Cl)	210		126	100.0% 	 100.0%	0.29 [0.06; 0.52] 0.27 [-0.42; 0.96]	· · · · · · · · · · · · · · · · · · ·
Prediction interval Heterogeneity: Tau ² = 0.3234; Chi ²	² = 14.32, df = 2 (^o < 0.01); l ²	= 86%				[-8.23; 8.77]	
								-5 0 5 Non-survivors Survivors

Figure S20: Comparative meta-analysis of standardized mean difference of urea in Covid-19 patients with 95% CI

A) Favors mild-moderate vs severe-critical

	Mild-modera	te S	evere-o	critical		Weight	Weight	Std. Mean Difference	Std. Mean Difference
Study	Mean S	D Total	Mean	SD	Total	(fixed)	(random)	V, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Cao/2020/China	5.40 9.	83 107	6.06	1.03	21	7.0%	12.1%	-0.07 [-0.54; 0.40]	
Yanli Liu/ 2020/China96	3.73 1.	45 56	5.53	2.36	53	9.8%	13.0%	-0.92 [-1.31; -0.52]	— — —
Wang/2020/China	5.58 2.	44 59	5.04	1.96	57	11.5%	13.4%	0.24 [-0.12; 0.61]	ii + ∎−-
Mao/2020/China	6.37 9.	07 126	18.07	35.12	88	20.1%	14.4%	-0.49 [-0.77; -0.22]	-
Shang/2020/China	4.00 1.	40 226	4.23	1.71	139	34.3%	15.0%	-0.15 [-0.36; 0.06]	i i i i i i i i i i i i i i i i i i i
Lei Liu/2020/China	4.23 0.	57 44	4.97	1.10	7	2.2%	8.0%	-1.10 [-1.93; -0.27]	
Yudong/2020/China	5.04 2.	93 96	6.38	4.54	16	5.4%	11.3%	-0.42 [-0.95; 0.12]	
Dawei Wang/2020/China	4.07 1.	50 102	6.60	4.09	36	9.6%	12.9%	-1.03 [-1.43; -0.63]	-
Total (fixed effect, 95% CI)		816			417	100.0%		-0.37 [-0.49; -0.24]	• • • • • • • • • • • • • • • • • • •
Total (random effects, 95%	CI)						100.0%	-0.46 [-0.79; -0.13]	-
Prediction interval Heterogeneity: Tau ² = 0.1776; C	hi ² - 38.03. df	-7(P<	0.01).12	- 82%				[-1.57; 0.65]	
Heterogeneity. Tau = 0.1770, C	ni – 56.05, ui	- / (F <	0.01), 1	- 02 70					-15 -1 -05 0 05 1 15
									Mild-moderate Severe-critical
									wind-moderate Severe-childan

	Survivors	Non-su	rvivors		Weight	Weight	Std. Mean Difference	Std. Mean Difference
Study	Mean SE) Total Mea	n SD	Total	(fixed)	(random)	IV, Fixed + Random, 95% CI	IV, Fixed + Random, 95% CI
Shang/2020/China	16.47 9.73	3 365 6.4	7 3.74	51	44.9%	26.3%	1.08 [0.78; 1.39]	
Jingwen Li/2020/China	5.03 6.24	4 96 19.4	3 35.25	65	39.5%	26.2%	-0.63 [-0.95; -0.30]	
Dawei Wang/2020/China	4.49 1.11	1 28 10.6	5 7.34	5	3.4%	22.3%	-2.13 [-3.22; -1.03]	
Xiaobo Yang/2020/China	5.70 2.10) 22 8.1) 2.90	30	12.2%	25.3%	-0.91 [-1.49, -0.33]	-
Total (fixed effect, 95% CI)		511		151	100.0%		0.06 [-0.15; 0.26]	•
Total (random effects, 95% Cl)						100.0%	-0.58 [-1.86; 0.69]	
Prediction interval Heterogeneity: Tau ² = 1.5861; Chi ²	- 07 E2 df -	2 (D < 0.01)	2 - 070/				[-6.68; 5.52]	
neterogeneity, rau = 1.5861, Chi	- or.53, di -	э (г < 0.01);	- 97%					-6 -4 -2 0 2 4 6
								Survivors Non-survivors