Subgroup analyses Forest plots

Glossary

Sev: Severe COVID-19 disease ARM/IVM: invasive mechanical ventilation ARDS: acute respiratory distress syndrome ICU: intensive care unit Sat <90%: oxygen saturation less than 90% OTHER: other severity definitions ALT: Alanine aminotransferase APTT: activated partial thromboplastin time APACHE: Acute Physiology And Chronic Health Evaluation II AST: Aspartate aminotransferase FDP: Fibrin Degradation Product NA: Not applicable PT: prothrombin time

Candidate variable: Smoking (Active, present smoker), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	:	Weigh 95%-CI (fixed	t Weight) (random)
Sev = ICU Huang C_JYH Qin X_SPH Yang L_YCPH Argenziano M_NYP/CUIMC Jun R_TH Kalligeros M_MC Fixed effect model Random effects model Heterogeneity: ¹² = 0%, ²² = 0, p = 0. Sev = PROGRESSION IN SEVER			0.07 0.93 0.73 1.11 2.35 0.92 1.11 1.11	[0.00; [0.34; [0.09; [0.79; [0.78; [0.42; [0.83; [0.83;	37.56] 0.19 2.55] 2.57 6.05] 0.69 1.57] 21.19 7.07] 2.02] 4.19 1.48] 30.59 1.48] -	6 3.1% 6 1.3% 6 5.0% 6 2.9% 6 3.7%
Sev = PROGRESSION IN SEVER Liu F_XH Liu W_MC Dong J_FMC Yan X_HNU Fixed effect model Random effects model Heterogenelty: I ² = 63%, τ ² = 0.9971	-2.42 3.4001 2.66 0.7045 0.74 0.5286 0.22 0.6608		0.09 14.28 2.10 1.24 2.84 2.83	[0.00; [3.59; [0.75; [0.34; [1.42; [0.76;	69.67] 0.19 56.80] 1.39 5.93] 2.49 4.54] 1.59 5.68] 5.29 10.52] -	6 2.3% 6 3.0% 6 2.5%
Sev = CRITICAL (Severe ARDS : Mo P_ZH Wei-jie (G_NHC Chen Y_multioentrico- FCMCH Duan Q_WPH Liu T_UH Hu L_TH Li J_CHW Liu J_BDH FY_JH, SPHCC, TPH Fixed effect model Random effects model Heterogenetly: $l^2 = 1\%$, $\tau^2 = 0.0037$,	0.52 0.8815 1.18 0.2769 1.17 1.2746 0.20 0.4670 2.67 3.1987 0.75 0.3817 -0.15 0.4735 1.03 1.0442 0.60 0.3857		1.68 3.25 3.23 1.22 14.43 2.12 0.86 2.80 1.82 2.03 2.02	[0.30; [1.89; [0.49; [0.49; [0.03; 7 [1.00; [0.34; [0.36; [1.48; [1.47;	9.45] 0.85 5.59] 8.69 39.28] 0.49 3.04] 3.09 619.45] 0.19 4.48] 4.59 2.17] 2.99 3.88] 4.49 2.79] 25.39 2.79] -	6 4.4% 6 1.0% 6 3.4% 6 0.2% 6 3.8% 6 3.3% 6 1.4% 6 3.8%
Sev = SEVERE (> 30 breathings Shi Yu_ZPV Jin-Jin Z_MC Han Y_RHWU Qi D_multicentrico Shi W_SPHCC Feng Z_TXH Ma K_YCH Tabata S_SDFCH Wang G_PHTCC Wang Y_ZH(Multicéntrico) Zhang H_ZH Jiancheng L_JH Kuang Y_MC Cao M_SPHCC Wang Y_CHW CM_FAHSYU Hongying S_FAHWMU/SAHWMU Xudan C_GEPH Zhang R_RH LIX_TH LIX_TH LIX_TH Fixed effect model Random effects model	0.47 0.4710 1.11 0.7293 0.29 0.8266 2.67 0.3681 0.38 0.7120 -2.16 3.1968 0.97 0.8117 0.68 0.5448 -0.46 0.7206 -0.21 0.9332 -0.32 0.6281 -0.36 0.7726 -0.21 0.9332 -0.32 0.6281 1.53 1.1517 -0.03 0.4772 5.40 3.1972 -0.21 0.3271 2.17 1.0106		1.60 3.04 1.33 14.46 1.47 0.65 1.97 0.63 0.04 1.44 0.81 0.83 0.04 1.44 0.81 0.97 - 221.25 0.83 0.97 - 221.25 0.81 0.97 - 221.25 0.81 0.97 - 221.25 1.80 0.97 - 221.25 1.80 0.97 - 221.25 0.81 0.81 0.81 0.97 0.81 0.97 0.81 0.97 0.81 0.97 0.81 0.97 0.81 0.97 0.81 0.97 0.81 0.97 0.81 0.97 0.81 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97	[0.64; [0.73; [0.26; [7.03; [0.00; [0.54; [0.68; [0.14; [0.00; [0.35; [0.14]; [0.40; [0.40; [0.40; [0.40; [0.42; [1.64]; [1.21; [1.31; [1.04;	4.04] 3.07 12.69] 1.27 6.74] 1.07 29.75] 4.87 5.93] 1.37 5.93] 1.37 12.99] 1.07 5.73] 2.27 2.86] 1.17 20.58] 0.17 1.589] 1.37 5.04] 0.87 5.04] 0.87 2.48] 1.77 7.76] 0.67 2.46] 2.97 15.68] 0.97 15.68] 0.97 15.68] 0.97 15.68] 0.97 15.68] 0.97 1.54] 2.97 1.54] 3.17 1.54] 3.17 1.55] 3.57] 3.57] 3.57] 3.57] 3.57] 3.57] 3.57] 3.57] 3.57] 3.57] 3.57] 3.57] 3.57] 3.57] 3.	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$
Sev = IMV Xu Y_FAHG Liao Xuelian_MC Fixed effect model Random effects model Heterogeneity: 7 - 21%, x ² - 0.2977	-0.35 0.8013 1.34 1.2750		0.71 3.83 1.14 1.23	[0.15; [0.32; [0.30; [0.26;	3.39] 1.09 46.65] 0.49 4.31] 1.49 5.84] -	6 1.0%
Sev = Critical WR_PHFC Fixed effect model Random effects model Heterogenetty: not applicable	1.37 0.5661	441	3.93 3.93 3.93	[1.30; [1.30; [1.30;	11.93] 2.09 11.93] 2.09 11.93] -	
Sev = ARDS Dreher M_UHA Yu T_DPHNH Fixed effect model Random effects model Heterogeneity: $l^2 - 0\%$, $r^2 - 0$, $p - 0$.	-1.19 0.8730 -0.92 1.0963	+++++++++++++++++++++++++++++++++++++++	0.30 0.40 0.34 0.34	[0.05; [0.05; [0.09; [0.09;	1.68] 0.93 3.41] 0.53 1.28] 1.49 1.28] -	6 1.3%
Fixed effect model Random effects model Heterogeneity: $l^2 = 54\%$, $\tau^2 = 0.3656$ Residual heterogeneity: $l^2 = 50\%$, p	<i>p</i> < 0.01	0.001 0.1 1 10 1000	1.62 1.65	[1.38; [1.25;	1.89] 100.09 2.17] -	6 - 100.0%

Candidate variable: Smoking (Active, present smoker), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	95%-CI	Weight (fixed)	Weight (random)
Sev = ARDS		ļ	2.44		0.74	1.00
Wu C_WJH Liu Y_CHW	0.88 0.7448	1	2.41	[0.56; 10.35] [0.17; 3.66]	0.7%	1.3%
Zhao W_BYH	2.04 0.7681		7.71	[1.71; 34.76]	0.7%	1.2%
Fixed effect model		4	2.49	[1.04; 5.92]	2,1%	_
Random effects model		4	2.46	[0.69; 8.83]		3.7%
Helerogenetly: / ² = 54%, t ² = 0.6867,)	p = 0.11					
Sev = CRITICAL (Severe ARDS 5			0.00	10.00. 44.401	0.05	
Gao Y_FSH LI K_CMU	-0.07 1.2688 3.08 3.3421	11	0.93	[0.08; 11.16] [0.03; 15214.47]	0.2%	0.6%
LIK_GMU	0.00 1.4142		1.00	[0.03; 15214.47]	0.2%	0.5%
Liu Y_STP Mo P_ZH	2.13 1.0995		8.38	[0.97; 72.30]	0.3%	0.7%
Wei-jie G_NHC	1.56 0.4813	4	4.74	[1.84; 12.16]	1.7%	2.0%
Chen X_GHCTC	1.38 0.8077		3.89	[0.80; 18.94]	0.6%	1.1%
Chen Y_ multicentrico- FCMCH	2.17 0.9043	+	8.75	[1.49; 51.50]	0.5%	1.0%
Duan Q_WPH	1.06 0.4700	1	2.89	[1.15; 7.27]	1.8%	2.1%
Liu T_ UH Shijiao Y_HHMU	2.35 3.2052	1	- 10.48	[0.02; 5603.29] [1.27; 13.94]	0.0%	0.1%
LIJCHW	0.87 0.3573	1	2.39	[1.19; 4.82]	3.1%	2.5%
Liu J_BDH	3.21 3.3460	- ÷ -		0.04; 17447.07]	0.0%	0.1%
Lei P_BH (Multicentrico)	1.38 0.5184	+	3.96	[1.44; 10.95]	1.5%	1.9%
FY_JH, SPHCC, TPH	1.11 0.3764	+	3.02	[1.45; 6.32]	2.8%	2.4%
Zhou M_MC	0.08 0.3945	† 1	1.06	[0.49; 2.30]	2.6%	2.3%
Wu J_TFAH Fixed effect model	3.00 0.3919	-	20.10	[9.33; 43.34]	2.6%	2.4%
Random effects model Heterogeneity: 1 ² = 57%, t ² = 0.4756, j	p = 0.01	-	3.78	[2.29; 6.24]		21.4%
Sev = ICU						
Huang C_JYH	0.92 0.8981		2.50	[0.43; 14.54]	0.5%	1.0%
Wang D_ZH	1.01 0.5000	H	2.76	[1.03; 7.35]	1.6%	2.0%
Qin X_SPH Yang L_YCPH	-0.27 1.2444 -0.55 1.0686		0.76	[0.07; 8.76] [0.07; 4.67]	0.3%	0.6%
Lei S_RHZHTHC	2.48 1.1547	1	12.00	[1.25; 115.36]	0.3%	0.8%
Colombi D_GdSH	1.31 0.3434	4	3.70	[1.89; 7.25]	3.4%	2.6%
Argenziano M NYP/CUIMC	-0.06 0.2252	100 H	0.94	[0.60; 1.46]	7.9%	3.0%
Jun R_TH	0.30 0.7088	-+	1.34	[0.34; 5.40]	0.8%	1.3%
Rentsch_CT	-0.31 0.3065	+1	0.73	[0.40; 1.33]	4.3%	2.7%
Zheng X_FAH	1.06 1.2587 1.85 0.7117	-1-	2.90	[0.25; 34.19] [1.58; 25.73]	0.3%	0.6%
Hu D_UH Kalligeros M_MC	0.42 0.5560	1	1.52	[0.51; 4.52]	1.3%	1.8%
Fixed effect model	0.42 0.0000	02	1.42	[1.09; 1.86]	21.8%	1.0 /
Random effects model		0	1.80	[1.08; 2.99]		18.3%
Heterogeneity: $l^2 = 60\%$, $\tau^2 = 0.3778$, l	0 = 0.01					
Sev = PROGRESSION IN SEVERI	TY CATEGORY					
Liu F_XH	2.42 3.4001		- 11.25	[0.01; 8817.06]	0.0%	0.1%
Wang X_DFH	1.56 0.5582	1	4.75	[1.59; 14.18]	1.3%	1.8%
Yan X_HNU	2.08 0.4623 1.06 0.2349	100	7.99	[3.23; 19.77] [1.82; 4.57]	1.9%	2.1%
Zhang L_WUH Bi Q_STPH	1.67 0.5187	1	5.30	[1.82; 4.57] [1.92; 14.64]	1.5%	1.9%
Fixed effect model		5	3.87	[2.70; 5.53]	12.0%	
Random effects model		0	4.13	[2.70: 6.33]		8.8%
Heterogeneity: $l^2 = 14\%$, $\tau^2 = 0.0367$, l	p = 0.33	A.C				
Sev = SEVERE (> 30 breathings (OR Sat <90%)	-				
Shi Yu_ZPV	1.70 0.6461	1	5.47	[1.54; 19.42] [0.42; 9.07]	1.0%	1.5%
Jin-Jin Z_MC Lu Jiatao_WHH	0.67 0.7839 0.68 0.3941	11	1.90	[0.91; 4.25]	2.6%	2.4%
Han Y RHWU	1.48 1.1599		4.40	[0.45; 42.73]	0.3%	0.7%
Han Y_RHWU Liu Yo_SCH	0.45 1.2903		1.56	[0.12; 19.60]	0.2%	0.6%
Shi W_ SPHCC	1.49 0.5854		4.45	[1.41; 14.02]	1.2%	1.7%
Song CY_FAHZU	1.15 1.1444	-12-	3.16	[0.34; 29.75]	0.3%	0.7%
Sun F_ZHWU	1.02 0.5885	+	2.77	[0.87; 8.78]	1.2%	1.7%
Zhang G_ZHWU Zhou Y_CHW	1.69 0.4671	1	5.40	[2.16; 13.49] [1.33; 7.35]	1.8%	2.1%
Chen X FHC/LCH	1.31 0.6077	1	3.71	[1.33; 7.35] [1.13; 12.22]	1.1%	1.6%
Feng Z_TXH	1.49 1.2568		4.43	[0.38; 52.00]	0.3%	0.6%
Ma K YCH	0.82 0.9514	-++-	2.26	[0.35; 14.58]	0.4%	0.9%
Wang G_PHTCC Wang Y_ZH(Multicéntrico)	2.06 0.6973	÷	7.85	[2.00; 30.80]	0.8%	1.49
Wang Y_ZH(Multicentrico)	1.62 0.6191	1	5.06	[1.50; 17.03]	1.0%	1.6%
Wang Z_UH Zhang H_ZH	2.26 0.8146 2.25 1.1010	1.	9.63	[1.95; 47.54] [1.10; 82.38]	0.6%	1.19
Jiancheng L_JH	2.36 3.2499		- 10.61	[0.02; 6195.74]	0.0%	0.1%
CalQ_TPHS	1.48 0.4278		4.29	[1.86; 9.93]	2.2%	2.2%
Cao M_SPHCC	2.17 0.6481	+	8.78	[2.46: 31.26]	1.0%	1.5%
FL_GHCTCPLA	1,13 0.5076	+	3.09	[1.14; 8.36]	1.6%	1.9%
JX_WFPH	1.88 1.4712		6.57	[0.37; 117.48]	0.2%	0.4%
Colaneri M_PSM Hongying S_FAHWMU/SAHWMU	0.88 0.7092	. 11	2.40	[0.60; 9.64]	0.8%	1.35
Kin L CHWC/hospitales en Hunan	199 0 7097	-	7.29	[0.00; 42.57] [1.81; 29.30]	0.0%	1.39
Kin L_CHWC/hospitales en Hunan Li J_CHW	0.74 0.2874	-2	2.10	[1.20; 3.69]	4.9%	2.89
MUC_TH	0.58 0.1900		1.79	[1.23; 2.59]	11.1%	3.29
Wan S TGCH	3.00 0.8622		20.00	[3.69; 108.37]	0.5%	1.0%
Zhang R_RH	1.46 0.7082		4.30	[1.07; 17.23]	0.8%	1.4%
Kie J_UHW	1.14 0.7528	1	3.12	[0.71; 13.63]	0.7%	1.3%
Yang A_ Zheng F_NHCFH	2.28 0.6657 1.53 1.0215	1	9.75	[2.64; 35.95] [0.62; 34.11]	0.9%	1.5%
Zheng F_NHCFH LIX_TH	1.67 0.4585	5-	4.61	[2.15; 12.98]		2.1%
LIY_TH	-0.61 1.2390	-+1	0.54	[0.05; 6.14]	0.3%	0.6%
Fixed effect model			3.10	[2.57; 3.74]	44.0%	
Random effects model Heterogenetly: / ² = 14%, x ² = 0.0541, j	0 = 0.24		3.47	[2.78; 4.34]		46.0%
Sev = IMV						
Xu Y_FAHG	1.06 0.9252		2.88	[0.47; 17.63]	0.5%	0.9%
Liao Xuelian_MC	2.69 0.9953	+	14.79		0.4%	0.8%
	-3.04 3.2368	·	0.05	[0.00; 27.17]	0.0%	0.1%
Fixed effect model		1	5.01	[1.37; 18.38]	0.9%	
Random effects model Heterogeneity: 1 ² = 45%, t ² = 1.3187, j	p = 0.16		4.16	[0.57: 30.21]		1.9%
Fixed effect model		The second s	2.78	[2.45; 3.14]	100.01	
		1.5		[2.43, 3.14]	100.0%	
Random effects model		ò	3.34	[2.72; 4.10]		100.0%

Candidate variable: Cerebrovascular disease (History of stroke or CNS disease), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	95%-CI	Weight (fixed)	Weigl (randor
Sev = CRITICAL (Severe ARDS S			_		_	
Mo P_ZH	-2.32 1.2786		0.10	[0.01; 1.20]	0.5%	1.6
Wei-jie G_NHC	1.77 0.5981	 = -	5.89	[1.82; 19.03]	2.4%	3.8
Chen X_GHCTC	1.50 0.9281	++•	4.46	[0.72; 27.51]	1.0%	2.5
Chen Y multicentrico- FCMCH	1.17 1.2746		3.23	[0.27; 39.28]	0.5%	1.6
Hul TH	-1.82 3 1916		0.16	0.00; 84.20]	0.1%	0.3
LI J CHW	0.18 0.4593	1	1.20	[0.49; 2.96]	4.1%	4.4
Lei P_BH (Multicéntrico)	-0.96 3.3417		0.38	[0.00; 266.75]	0.1%	0.3
FY_JH, SPHCC, TPH	1.74 0.5047	 * -	5.69	[2.12; 15.31]	3.4%	4.2
Zhou M_MC	-0.17 0.3990		0.84	[0.38; 1.84]	5.5%	4.7
Fixed effect model		¢	1.84	[1.19; 2.84]	17.7%	-
Random effects model Heterogeneity: I^2 = 61%, τ^2 = 0.7910, J	p < 0.01	4 0 0	1.86	[0.80; 4.29]		23.5
Sev = ICU						
Wang D ZH	3.01 1.0999	 	20.20	[2.34; 174.43]	0.7%	2.0
Lei S RHZHTHC	3.38 3.2602		29.23	[0.05; 17416.52]	0.1%	0.3
Colombi D_GdSH	0.69 0.3535	L.	2.00	[1.00; 4.00]	7.0%	5.0
Colombi D_GuSH		<u> </u>				5.0
Argenziano M_NYP/CUIMC	0.06 0.2746		1.06	[0.62; 1.81]	11.5%	
Zheng X_FAH	0.32 1.4429		1.38	[0.08; 23.36]	0.4%	1.3
Fixed effect model		e;	1.50	[1.00; 2.27]	19.7%	-
Random effects model		\$	2.07	[0.88; 4.88]		14.0
Heterogeneity: I ² = 54%, τ ² = 0.3896, j	p = 0.07					
Sev = SEVERE (> 30 breathings (0.00	10.00.00.000	0.00	
Jin-Jin Z_MC	1.06 1.2370	_ _}`	2.89	[0.26; 32.68]	0.6%	1.7
Lu Jiatao_WHH	0.82 0.9200	-14	2.28	[0.38; 13.83]	1.0%	2.5
Sun F ZHWU	-2.45 3.1961		0.09	[0.00; 45.56]	0.1%	0.3
Zhang G_ZHWU	2.32 0.6081		10.13	[3.07; 33.34]	2.4%	3.7
Chen X_FHC/LCH	1.10 0.7475	<u>11-</u>	3.01	[0.70; 13.04]	1.6%	3.1
	-0.08 3.3445		0.93		0.1%	0.3
Feng Z_TXH				[0.00; 650.70]		
Ma K_YCH	1.24 1.0352	- <u>+</u> #	3.44	[0.45; 26.20]	0.8%	2.1
Wang G_PHTCC	1.05 0.8852	++	2.87	[0.51; 16.28]	1.1%	2.6
Wang Y_ZH(Multicentrico)	1.14 0.8150	++	3.13	[0.63; 15.44]	1.3%	2.8
Zhang H ZH	0.53 0.9477	_ _ _ .	1.71	[0.27; 10.94]	1.0%	2.4
Jiancheng L_JH	-0.22 0.6753	-44	0.80	[0.21; 3.01]	1.9%	3.4
Mingfeng H_SPH	-1.62 3.2505	1!	0.20	[0.00; 115.37]	0.1%	0.3
Wang Y_CHW	0.38 0.7916	- P -	1.46	[0.31; 6.88]	1.4%	2.9
JX_WFPH	3.94 3.3584	- <u> </u> ; ·		[0.07; 37140.02]	0.1%	0.3
Xin L_CHWC/hospitales en Hunan	1.78 0.8810	<u> </u> <u></u> <u>+</u> <u></u>	5.92	[1.05; 33.29]	1.1%	2.6
Chen W YH	4.29 3.3543		- 73.12	[0.10; 52386.57]	0.1%	0.3
Li J_CHW	1.35 0.2992	1	3.86	[2.15; 6.94]	9.7%	5.2
YuC_TH	0.25 0.2729	10	1.28	[0.75; 2.19]	11.7%	5.3
		10				
Wang L_SPH	-0.43 3.3468		0.65	[0.00; 458.56]	0.1%	0.3
Zheng F_NHCFH	0.39 1.1729	- •	1.47	[0.15; 14.66]	0.6%	1.8
Fixed effect model		4	2.36	[1.74; 3.19]	36.6%	
Random effects model Heterogeneity: $I^2 = 13\%$, $\tau^2 = 0.0861$, J		¢	2.46	[1.69; 3.58]		44.2
	p = 0.29					
Sev = ARDS Liu Y_ CHW	4.27 3.1946		71.49	[0.14; 37452.78]	0.1%	0.3
Zhao W_BYH	1.08 1.4389	_ <u>_</u>	2.95	[0.18; 49.46]	0.4%	1.3
Dreher M UHA	0.43 0.8227	<u>_</u>	1.53	[0.31; 7.69]	1.3%	2.8
WangL RH	1.49 0.9061	<u> </u>	4.44	[0.75; 26.25]	1.3%	2.5
	1.49 0.8001	L.			2.9%	2.0
Fixed effect model		Y	2.81	[0.95; 8.31]	2.5%	_
Random effects model		P	2.81	[0.95; 8.31]		7.0
Heterogeneity: I ² = 0%, τ ² = 0, p = 0.6	1					
Sev = OTHER View S. beseiteles en Reijing	2.00.2.0590		40.40	0.00.00440.003	0.497	
Ying S_hospitales en Beijing	3.90 3.2569			[0.08; 29110.25]		0.3
Fixed effect model				[0.08; 29110.25]	0.1%	
Random effects model Heterogeneity: not applicable			49.18	[0.08; 29110.25]		0.3
Sev = PROGRESSION IN SEVERI	TY CATEGORY					
Yan X_HNU	1.46 0.8948	<u>++-</u>	4.32	[0.75; 24.94]	1.1%	2.6
Zhang L_WUH	2.07 0.8076	<u> </u>	7.90		1.3%	2.0
		1				
Bi Q_STPH	2.22 0.2056		9.23	[6.17; 13.81]		5.6
Fixed effect model		•	8.82	[6.03; 12.92]	23.0%	
Random effects model		•	8.82	[6.03; 12.92]		11.1
Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 0.7$	0			-		
include generation of the other of the other						
Fixed effect model			2.82	[2.35; 3.38]	100.0%	
Fixed effect model Random effects model		•	2.82 2.67	[2.35; 3.38] [1.84; 3.87]	100.0%	100.0
Fixed effect model	o < 0.01	· · · · · · · · · · · · · · · · · · ·			100.0%	100.0

Candidate variable: Arterial hypertension, outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	9	5%-CI	Weight (fixed)	Weigt (randon
Sev = ICU		li I					
Huang C_JYH Wang D_ZH	-1.47 3.3503		0.23	[0.00; 1	164.05]	0.2%	0.25
Wang D ZH	-2.66 3.2084		0.07	00.01	37.57	0.2%	0.25
Qin X_SPH	0.03 0.9398		1.03	[0.16;	6.50]	2.0%	2.09
Yang L_YCPH	-1.18 3.2506	Îi	0.31	[0.00; 1		0.2%	0.2
		· [
Colombi D_GdSH	0.59 0.9224	<u> </u>	1.80	[0.30;	10.97]	2.1%	2.1
Argenziano M_NYP/CUIMC	0.52 0.5529	+	1.68	[0.57;	4.96]	5.8%	5.85
Kalligeros M_MC	-0.19 3.2565		0.83	[0.00; 4		0.2%	0.25
Fixed effect model		*	1.38	[0.62;	3.07]	10.5%	-
Random effects model Heterogeneity: $l^2 = 0\%$, $\tau^2 = 0$, $p = 0$.95	†	1.38	[0.62;	3.07]		10.59
Sev = CRITICAL (Severe ARDS	Shock or ARM)						
Mo P_ZH	0.75 0.8527	-15	2.12	[0.40;	11.30]	2.4%	2.4
Chen X_GHCTC	-0.54 1.1965		0.58	[0.06;	6.09]	1.2%	1.2
Chen Y multicentrico- FCMCH	1.17 1.2746	_ ! +	3.23	[0.27;	39.28]	1.1%	1.1
Duan Q_WPH	0.50 1.4273		1.65	[0.10;	27.09	0.9%	0.95
Liu T_ UH	0.38 3.3491	j	1.46	[0.00; 10		0.2%	0.2
		1_					
Shijiao Y_HHMU	1.36 0.8395	1.	3.91	[0.75;		2.5%	2.5
Hu L_TH	-0.94 3.2228		0.39	[0.00; 2		0.2%	0.25
Zhou M_MC	1.24 1.1637	- <u>+</u> !	3.44	[0.35;	33.66]	1.3%	1.35
Wu J TFAH	1.19 0.7753	 =	3.27	0.72;	14.96]	2.9%	2.95
Fixed effect model		-0	2.43	[1.17:	5.061	12.6%	_
Random effects model		4	2.43	1.17:	5.06]		12.6
Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 0$	0.5	17	4.40	fr.07	3.00]		12.0
Sev = SEVERE (> 30 breathings Shi Yu_ZPV	OR Sat <90%) -0.12 0.7574	-	0.89	[0.20;	3.92]	3.1%	3.15
Jin-Jin Z MC	0.37 0.7289	1	1.44	0.35;	6.031	3.3%	3.3
	0.39 0.5018	<u>c</u>	1.48			7.0%	7.0
Lu Jiatao_WHH		Ť		[0.55;	3.95]		
Song CY_FAHZU	-1.48 1.1804	<u>+</u> +	0.23	[0.02;	2.30]	1.3%	1.3
Sun F_ZHWU	1.01 1.2439		2.74	[0.24;	31.37]	1.1%	1.15
Zhang G_ZHWU	1.45 0.7804	<u>i.</u>	4.26	0.92;	19.67	2.9%	2.95
Lei L_CUTGH	4.19 3.3616			[0.09; 479		0.2%	0.2
							2.9
Chen X_FHC/LCH	-0.31 0.7760		0.73	[0.16;	3.34]	2.9%	
Feng Z_TXH	-1.57 3.2142		0.21	[0.00; 1		0.2%	0.2
Ma K_YCH	0.71 0.6877	- e	2.04	[0.53;	7.84]	3.7%	3.7
Wang G_PHTCC	0.65 0.6921	- <u>lå-</u> -	1.92	0.49	7.46]	3.7%	3.7
Wang Y_ZH(Multicéntrico)	1.69 1.2333	<u></u>	5.43	[0.48;	60.92]	1.2%	1.2
Wang Z_UH	-0.85 3.3467	. 1	0.43	[0.00; 3		0.2%	0.2
	-1.07 1.1819		0.43	10.03	3.491	1.3%	1.3
Zhang H_ZH							
Jiancheng L_JH	0.09 1.2397		1.09	[0.10;	12.39]	1.1%	1.1
Mingfeng H_SPH	0.26 0.6984		1.30	[0.33;	5.11]	3.6%	3.6
Zeng G_TPHS	0.55 1.2317	<u>k</u>	1.73	[0.16;	19.381	1.2%	1.2
CaiQ_TPHS	0.57 0.4467	느	1.76	[0.73;	4.221	8.8%	8.8
		. Ē				0.0%	0.0
Cao M_SPHCC	-1.87 3.1981		0.15	[0.00;	81.40]		
Colaneri M_PSM	0.49 1.4494		1.62	[0.09;	27.84]	0.8%	0.8
Xin L_CHWC/hospitales en Huna	n 1.37 0.7808	 • -	3.92	[0.85;	18.12]	2.9%	2.9
YuC_TH	0.25 0.3323		1.28	[0.67;	2.45]	15.9%	15.9
Zhang R_RH	3.33 3.3401	— II · · · · · · ·		[0.04; 194		0.2%	0.2
Yang A_	0.29 0.6540	<u> </u>	1.33	[0.37;	4.801	4.1%	4.1
Zheng F_NHCFH	-2.22 3.2089		0.11		58.49]	0.2%	0.2
	2.22 3.2068					70.9%	0.2
Fixed effect model		r i	1.48	[1.09;	2.02]	10.3%	-
Random effects model Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 0$	93	î.	1.48	[1.09;	2.02]		70.9
Sev = OTHER Ying S_hospitales en Beijing	3.90 3.2569	_ 	49.18	[0.08; 29]	10.251	0.2%	0.2
Fixed effect model		Li.		[0.08; 291		0.2%	-
Random effects model		1		[0.08; 291		U.Z. 70	0.2
Kandom effects model Heterogeneity: not applicable			47.10	[0.00; 29]	10.20]		0.2
Sev = ARDS							
Dreher M UHA	-1.40 0.8608	Hi	0.25	[0.05;	1.33]	2.4%	2.4
Fixed effect model			0.25	[0.05;	1.33]	2.4%	_
			0.25		1.33]	a	2.49
Random effects model Heterogeneity: not applicable			0.23	[0.05;	1.55		2.4
Sev = PROGRESSION IN SEVE	RITY CATEGORY						
Zhang L WUH	0.79 0.7136	<u>_i_</u>	2.20	[0.54;	8.92]	3.5%	3.5
	0.16 0.1130	E.	2.20				3.0
Fixed effect model		1		[0.54;	8.92]	3.5%	-
Random effects model		P	2.20	[0.54;	8.92]		3.5
Heterogeneity: not applicable							
Fixed effect model		0	1.53	[1.18;		100.0%	-
Random effects model		6	1.53	[1.18;	1.99]		100.0
Heterogeneity: $l^2 = 0\%$, $\tau^2 = 0$, $p = 0$ Residual heterogeneity: $l^2 = 0\%$, $p = 0$.98	0.001 0.1 1 10 1000		•			

Candidate variable: Chronic kidney disease, outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	95%-CI		Weigh (random)
Sev = CRITICAL (Severe ARDS	Shock or ARM)					
	-2.10 3.3169 -		0.12	[0.00; 81.77]	0.1%	0.3%
Mo P_ZH	0.52 0.8815	11	1.68	[0.30; 9.45]	1.8%	3.1%
Wei-jie G_NHC	1.66 0.8264			[1.04; 26.58]	2.1%	3.39
Chen Y multicentrico- FCMCH					0.1%	0.35
				0.06; 20123.04]		
Duan Q_WPH	3.96 3.2204	10 NO		[0.10; 29034.41]	0.1%	0.4%
Shijiao Y_HHMU	3.52 3.3387		- 33.94	[0.05; 23585.56]	0.1%	0.3%
Hu L_TH	-1.82 3.1916 -	• 11	0.16	[0.00; 84.20]	0.1%	0.4%
FY JH, SPHCC, TPH	0.67 1.1620		1.95	[0.20; 18.99]	1.0%	2.19
Zhou M MC	0.65 0.7402		1.91	[0.45; 8.15]	2.6%	3.8%
Wu J_TFAH	0.48 0.9224		1.61	[0.26; 9.84]	1.7%	2.9%
Fixed effect model	U.TU U.CALT	9	2.37		9.8%	A.0 /
		1			3.078	40.00
Random effects model Helerogeneity: 1 ² = 0%, t ² = 0, p = 0	.83		2.37	[1.13; 4.97]		16.99
Rev. = 1011						
Sev = ICU Wang D_ZH	1.08 1.0195		2.94	[0.40; 21.69]	1.4%	2.5%
	-1.78 3.3404 -					0.3%
			0.17	[0.00; 117.30]	0.1%	
Yang L_YCPH	2.53 1.2421		12.59	[1.10; 143.68]	0.9%	1.9%
Lei S_RHZHTHC	2.61 3.3352	11		[0.02; 9366.23]	0.1%	0.3%
Colombi D_GdSH	1.65 0.6640		5.20	[1.42; 19.11]	3.2%	4.2%
Argenziano M_NYP/CUIMC	-0.23 0.2292	100	0.79	[0.51; 1.24]	26.9%	7.4%
	-0.69 0.3789		0.50	0.24; 1.05]	9.8%	6.3%
	-0.30 0.6611		0.74	[0.20; 2.71]	3.2%	4.2%
Fixed effect model	and the second sec	A	0.90	[0.64; 1.27]	45.7%	
		E			40.1 28	127.04
Random effects model Helerogeneity: 7 ² = 58%, τ ² = 0.4953	a, p = 0.02		1.33	[0.63; 2.81]		27.29
	00.0.1.00001					
Sev = SEVERE (> 30 breathings		1			0.000	
Shi Yu_ZPV	1.30 0.8506			[0.70; 19.52]	2.0%	3.25
Jin-Jin Z_MC	3.33 3.2490		- 27.82	[0.05; 16215.51]	0.1%	0.3%
Sun F_ZHWU	1.33 0.9393		3.78	[0.60; 23.81]	1.6%	2.8%
Zhang G_ZHWU	2.80 1.1073	14 · · ·	16.50	[1.88; 144.54]	1.2%	2.3%
Chen X FHC/LCH	1.59 1.4228	11	4.90	[0.30; 79.64]	0.7%	1.5%
	-1.05 3.3431			[0.00; 245.33]	0.1%	0.3%
	1.29 1.1637		3.62	[0.37; 35.38]	1.0%	2.15
Wang Y_ZH(Multicentrico)		1.				
Zhang H_ZH	3.10 3.2539			[0.04; 13044.30]	0.1%	0.3%
Zeng G_TPHS	1.26 1.0086		3.51	[0.49; 25.37]	1.4%	2.6%
JX_WFPH	4.10 3.3578		- 60.43	[0.08; 43592.13]	0.1%	0.3%
LI J CHW	2.04 0.4957		7.72	[2.92; 20.40]	5.7%	5.4%
	-0.15 0.3628	+	0.86	[0.42; 1.76]	10.7%	6.4%
Xie J UHW	0.89 0.7850		2.44	[0.52; 11.36]	2.3%	3.5%
LIX_TH	0.45 0.6512	1	1.56	[0.44; 5.60]	3.3%	4.3%
	0.10 0.001L	14			30.5%	4.00
Fixed effect model		1	2.43	[1.59; 3.71]	30.3%	
Random effects model		2	3.14	[1.68; 5.87]		35.5%
Helerogeneity: $l^2 = 36\%$, $\tau^2 = 0.413$	s, p = 0.09					
Sev = ARDS						
Liu Y_ CHW	1.57 0.8159	1	4.80	[0.97; 23.75]	2.1%	3.49
Zhao W_BYH	1.58 0.9541		4.85	[0.75; 31.49]	1.6%	2.85
	-0.41 0.7188		0.67	[0.16; 2.73]	2.7%	3.9%
WangL_RH	-1.68 3.2101 -	+	0.19	[0.00; 100.19]	0.1%	0.4%
Fixed effect model		-	1.97	[0.79; 4.90]	6.5%	
Random effects model		6	2.06	[0.58; 7.30]		10.4%
Heterogeneity: $l^2 = 39\%$, $\tau^2 = 0.6173$	3, p = 0.18		2.00	Feiner 1990]		10,000
Sev = PROGRESSION IN SEVE	RITY CATEGORY					
Zhao W_SXH	3.47 3.2501		32.26	0.06; 18839.23]	0.1%	0.35
Chao C_NFHJCH	2.77 3.3277			[0.02; 10819.14]	0.1%	0.3%
Yan X_HNU	1.02 1.1756	12	2.77	[0.28; 27.72]	1.0%	2.19
Zhang L_WUH	-0.37 0.5212		0.69	[0.25; 1.91]	5.2%	5.2%
BI Q_STPH	3.47 3.3354		31.99	[0.05; 22083.43]	0.1%	0.3%
Fixed effect model		4	1.06	[0.43; 2.61]	6.6%	-
Random effects model		4	1.17	[0.42; 3.25]	0.000	8.39
Heterogeneity: $l^2 = 4\%$, $\tau^2 = 0.0980$,	p = 0.38					
Sev = IMV						
Liao Xuelian_MC	2.86 1.2803	1	17.50	[1.42; 215.20]	0.9%	1.8%
	2.00 1.2000					1.0 /
Fixed effect model				[1.42; 215.20]	0.9%	
Random effects model Helerogeneity: not applicable			17.50	[1.42; 215.20]	-	1.89
		10 mar -	100		5001010	
Fixed effect model		0	1.46		100.0%	100 000
Random effects model		0	2.21	[1.51; 3.24]		100.09
Heterogeneity: /2 = 42%, t2 = 0.4663						

Candidate variable: Cancer (solid or active haematologic cancer), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	95%-CI		(random
Sev = ICU		П				
Huang C JYH	-1.47 3.3503 -		0.23	[0.00; 164.05]	0.1%	0.19
Huang C_JYH Wang D_ZH	0.69 0.6770	++-	2.00	[0.53; 7.54]	2.5%	2.79
Din X_SPH	0.44 1.4312	I	1.56	[0.09; 25.76]	0.6%	0.69
Yang L_YCPH	0.69 1.1728		2.00	[0.20; 19.91]	0.8%	0.95
Lei S_RHZHTHC	0.63 0.7853	10	1.88	10.40; 8.741	1.9%	2.09
		TL.	3.50		7.2%	6.67
Colombi D_GdSH	1.25 0.4008	17-		[1.60; 7.68]		
Argenziano M_NYP/CUIMC	-0.12 0.3109		0.89	[0.48; 1.64]	12.0%	9.65
Hu D_UH	-1.10 1.0820		0.33	[0.04; 2.78]	1.0%	1.15
Calligeros M_MC	1.08 0.7377	++	2.95	[0.69; 12.51]	2.1%	2.39
Fixed effect model		19	1.55	[1.05; 2.31]	28.2%	1000-100
Random effects model		4	1.64	[0.97; 2.79]		25,99
teterogeneity: 1 ² = 25%, 1 ² = 0.14	91, p = 0.22					
Sev = CRITICAL (Severe ARD			12/22	2012 - EUCH		100.31
Liang W_MC	1.38 0.4628		3.99	[1.61; 9.88]	5.4%	5.29
No P_ZH	0.75 0.8527	-14	2.12	[0.40; 11.30]	1.6%	1.79
Nei-jie G_NHC	0.54 1.0617	-	1.72	[0.21; 13.80]	1.0%	1.19
Chen X_GHCTC	0.69 0.8796		2.00	[0.38; 11.21]	1.5%	1.65
Chen Y_ multicentrico- FCMCH				0.02; 10822.26]	0.1%	0.15
Duan Q_WPH	-0.21 1.2400		0.81	[0.07; 9.25]	0.8%	0.85
	-1.81 0.8507		0.16	[0.03; 0.87]	1.6%	1.79
Liu T_ UH						
Shijiao Y_HHMU	-1.66 3.2498 -			[0.00; 110.96]	0.1%	0.19
Hu L_TH	1.86 0.9241	+	6.45	[1.05; 39.46]	1.4%	1.59
J_CHW	-0.25 0.5987		0.78	[0.24; 2.51]	3.2%	3.39
ei P_BH (Multicéntrico)	1.39 0.7522	+in-	4.00	[0.92; 17.47]	2.0%	2.29
FY_JH, SPHCC, TPH	1.83 0.5928		6.25	[1.96; 19.98]	3.3%	3.49
Zhou M_MC	0.39 0.5231	<u>U</u> -	1.48	[0.53; 4.13]	4.2%	4.29
	0.47 0.9224	0				
Nu J_TFAH	0.47 0.8224		1.60		1.4%	1.59
Fixed effect model		à	2.08	[1.39: 3.11]	27.6%	
Random effects model leterogeneity: 1 ² = 39%, 1 ² = 0.39	34 0 = 0.07	1	1.94	[1.12; 3.39]		28.69
a Correlementary and						
Sev = SEVERE (> 30 breathin						1000
Shi Yu_ZPV	1.82 0.9257		6.17	[1.01; 37.86]	1.3%	1.59
Sun F_ZHWU	0.61 0.8461		1.85	[0.35; 9.70]	1.6%	1.89
Zhang G_ZHWU	0.93 0.6898	++-	2.53	[0.65; 9.76]	2.4%	2.69
ling L_WUH	-2.29 3.2623		0.10	[0.00; 60.55]	0.1%	0.19
Bai X_WPH	1.10 1.2377		3.00	[0.27; 33.94]	0.8%	0.89
Chen X FHC/LCH				[0.00; 146.37]	0.1%	0.12
	-1.38 3.2481					
la K_YCH	-1.05 3.3431 -			[0.00; 245.33]	0.1%	0.19
Wang G_PHTCC	-1.24 3.2493 -		0.29	[0.00; 168.40]	0.1%	0.19
Wang Y_ZH(Multicéntrico)	0.59 1.0898		1.80	[0.21; 15.22]	1.0%	1.15
Wang Z_UH	0.29 1.1956		1.33	0.13; 13.89]	0.8%	0.95
liancheng L_JH	1.60 3.3387	17 17		0.01; 3447.51]	0.1%	0.15
nancheng L_JH						
Mingfeng H_SPH	2.09 1.2416		8.07	[0.71; 91.95]	0.7%	0.89
Zeng G_TPHS	1.25 1.4202		3.48	[0.22; 56.30]	0.6%	0.69
CaiQ_TPHS	1.45 1.0110		4.25	[0.59; 30.83]	1.1%	1.39
Cao M_SPHCC	-1.44 3.2116 -		0.24	[0.00; 127.92]	0.1%	0.19
CM FAHSYU	0.33 0.8981		1.40	[0.24; 8.11]	1.4%	1.69
IX_WFPH	-1.22 3.2670 -			[0.00; 178.74]	0.1%	0.19
Colaneri M_PSM	3.10 1.6790			0.83; 596.34]	0.4%	0.59
Chen W_YH	-0.24 3.3522			[0.00; 563.79]	0.1%	0.19
J J_CHW	1.10 0.6854		3.01	[0.78; 11.52]	2.5%	2.69
J_CHW WC_TH	0.70 0.4960	12	2.02	[0.76; 5.34]	4.7%	4.69
Wang L_SPH	-0.43 3.3468 -		0.65	[0.00; 458.56]	0.1%	0.19
Zhang R RH	2.17 0.8668	+	8.80	[1.61; 48.12]	1.5%	1.75
Ge J_UHW	0.16 0.9302		1.17	[0.19; 7.24]	1.3%	1.59
JX_TH	0.35 0.4238	<u><u> </u></u>	1.42	[0.62; 3.25]	6.4%	6.09
	0.30 0.4230	TI.				0.07
Fixed effect model Random effects model		Ş	2.24	[1.52; 3.30] [1.52; 3.30]	29.7%	30.99
teterogeneity: $l^2 = 0\%$, $\tau^2 = 0$, $p =$	0.97					
Sev = OTHER						
2i Xiaolong_MC	1.98 3.2709			0.01; 4403.39]		0.19
ring S_hospitales en Beijing	3.09 3.3450	-		0.03; 15476.99]	0.1%	0.15
Fixed effect model				0.13; 1219.69]	0.2%	
Random effects model				0.13; 1219.69]		0.29
tandom effects model leterogeneity: $t^2 = 0\%$, $\tau^2 = 0$, $p =$	0.81		12.40			- w.d.7
sev = IMV (u Y_FAHG	-0.50 1.2633		0.61	[0.05; 7.20]	0.7%	0.89
fixed effect model		-	0.61	[0.05; 7.20]	0.7%	_
landom effects model		-	0.61	[0.05; 7.20]		0.89
leterogeneity: not applicable				and a start		
Sev = ARDS						
Sev = ARDS Zhao W BYH	-0.05 1.1851		0.95	0.09; 9.67]	0.8%	0.9%
Dreher M UHA	0.43 0.8227	_	1.53	0.31; 7.69]	1.7%	1.95
WangL RH						
	2.99 0.7372		19.80	[4.67; 83.97]	2.1%	2.39
Fixed effect model Random effects model		2		[1.71; 12.02] [0.48; 24.46]	4.7%	5.09
teterogeneity: $l^2 = 73\%$, $t^2 = 2.17$	33, p = 0.02		2.76%	Ferant Taraol		- a.d7
Sev = PROGRESSION IN SEV	ERITY CATEGORY					
			15.04 7	02-10010 141	0.49	0.40
Chao C_NFHJCH	2.77 3.3277			0.02; 10819.14]	0.1%	0.19
	-0.86 3.2516 -		0.42	[0.00; 246.66]	0.1%	0.19
	0.52 0.3943	*	1.68	[0.78; 3.64]	7.4%	6.79
Chang L_WUH	1.69 0.9206		5.42	[0.89; 32.91]	1.4%	1.59
Chang L_WUH			2.02	[1.00; 4.08]	9.0%	
Chang L_WUH BI Q_STPH	1.00 0.0200	K 3			- W. M. 201	the second
Chang L_WUH BI Q_STPH Fixed effect model	1.00 0.0200	2				
fan X_HNU Chang L_WUH BI Q_STPH Fixed effect model Random effects model telemonenty 1 ² - 0% x ² - 0, p -		\$	2.02	[1.00; 4.08]		8.5%
Dang L_WUH 8 Q_STPH Fixed effect model Landom effects model Leterogeneity: 1 ² = 0%, 1 ² = 0, p =		0-0	2.02	[1.00; 4.08]		8.51
Chang L_WUH N Q_STPH ixed effect model Candom effects model		0-0		[1.00; 4.08]	100.0%	8.59

Candidate variable: Chronic liver disease, outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	95%-C	Weight I (fixed)	Weigl (randon
Sev = ICU						
Huang C_JYH	-1.47 3.3503		0.23	[0.00; 164.05	0.2%	0.2
Wang D ZH	-2.66 3.2084		0.07	[0.00; 37.57		0.2
Qin X_SPH	0.03 0.9398	-#-	1.03	[0.16; 6.50		2.0
Yang L_YCPH	-1.18 3.2506		0.31	[0.00; 179.33		0.2
Colombi D_GdSH	0.59 0.9224	_ <u> j</u>	1.80	[0.30; 10.97	1 2.1%	2.1
Argenziano M_NYP/CUIMC	0.52 0.5529	<u>_</u>	1.68	[0.57; 4.96		5.8
		T				
Kalligeros M_MC	-0.19 3.2565		0.83	[0.00; 489.51		0.2
Fixed effect model		*	1.38	[0.62; 3.07] 10.5%	-
Random effects model		\$	1.38	[0.62; 3.07		10.5
Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 0.5$	95					
Sev = CRITICAL (Severe ARDS \$	Shock or ARM)					
Mo P_ZH	0.75 0.8527		2.12	[0.40; 11.30	1 2.4%	2.4
		Ĩ				
Chen X_GHCTC	-0.54 1.1965		0.58	[0.06; 6.09		1.2
Chen Y_ multicentrico- FCMCH	1.17 1.2746		3.23	[0.27; 39.28		1.1
Duan Q WPH	0.50 1.4273	i	1.65	[0.10; 27.09	0.9%	0.9
Liu T UH	0.38 3.3491	i	1.46	[0.00; 1032.44	0.2%	0.2
		1_				
Shijiao Y_HHMU	1.36 0.8395	++	3.91	[0.75; 20.26		2.5
Hu L_TH	-0.94 3.2228		0.39	[0.00; 215.88] 0.2%	0.2
Zhou M_MC	1.24 1.1637	_ <u>_</u>	3.44	[0.35; 33.66		1.3
	1.19 0.7753	_i_	3.27			
Wu J_TFAH	1.18 0.7753	1				2.9
Fixed effect model		•	2.43	[1.17; 5.06		-
Random effects model		4	2.43	[1.17; 5.06	1	12.6
Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 0.9$	96	Ĩ.		1		
Sev = SEVERE (> 30 breathings	OR Sat < 90%					
		11	0.00	10.00.000		
Shi Yu_ZPV	-0.12 0.7574		0.89	[0.20; 3.92		3.1
Jin-Jin Z MC	0.37 0.7289	- <u>¥-</u>	1.44	[0.35; 6.03	3.3%	3.3
	0.39 0.5018	<u><u>L</u></u>	1.48	0.55; 3.95		7.0
Lu Jiatao_WHH		T				
Song CY_FAHZU	-1.48 1.1804	<u>+</u> + <u>+</u> -	0.23	[0.02; 2.30		1.3
Sun F_ZHWU	1.01 1.2439	!	2.74	[0.24; 31.37	1.1%	1.1
Zhang G_ZHWU	1.45 0.7804		4.26	0.92; 19.67		2.9
		· · ·	4.20			
Lei L_CUTGH	4.19 3.3616		- 66.00	[0.09; 47963.35	0.2%	0.2
Chen X_FHC/LCH	-0.31 0.7760		0.73	[0.16; 3.34	1 2.9%	2.9
		. 11				
Feng Z_TXH Ma K_YCH	-1.57 3.2142		0.21	[0.00; 113.53		0.2
MaK YCH	0.71 0.6877	- a- -	2.04	[0.53; 7.84	3.7%	3.7
Wang G PHTCC	0.65 0.6921	<u></u>	1.92	0.49; 7.46	3.7%	3.7
		Γ.				
Wang Y_ZH(Multicéntrico)	1.69 1.2333		5.43	[0.48; 60.92		1.2
Wang Z_UH	-0.85 3.3467		0.43	[0.00; 302.53	0.2%	0.2
Zhang H_ZH	-1.07 1.1819		0.34	[0.03; 3.49	1.3%	1.3
Jiancheng L_JH	0.09 1.2397	!	1.09	[0.10; 12.39		1.1
Januneng L_JH		1				
Mingfeng H_SPH	0.26 0.6984		1.30	[0.33; 5.11] 3.6%	3.6
Zeng G_TPHS	0.55 1.2317	i	1.73	[0.16; 19.38	1.2%	1.2
CaiQ_TPHS	0.57 0.4467	<u>u</u>	1.76	[0.73; 4.22	8.8%	8.8
		Ē				
Cao M_SPHCC	-1.87 3.1981		0.15	[0.00; 81.40		0.2
Colaneri M_PSM	0.49 1.4494		1.62	[0.09; 27.84	1 0.8%	0.8
Xin L_CHWC/hospitales en Hunar	1 37 0 7909	<u>li</u>	3.92	[0.85; 18.12		2.9
An L_OHWOmospitales en Hunar	1.3/ 0./808	Tim-				
YuC_TH	0.25 0.3323		1.28	[0.67; 2.45		15.9
Zhang R_RH	3.33 3.3401	<u> </u>	27.93	[0.04; 19462.06	0.2%	0.2
Yang A	0.29 0.6540	<u> </u>	1.33	[0.37; 4.80	4.1%	4.1
		n fi				
Zheng F_NHCFH	-2.22 3.2089		0.11	[0.00; 58.49		0.2
Fixed effect model		k	1.48	[1.09; 2.02	70.9%	-
Random effects model		ü	1.48	[1.09; 2.02		70.9
Random effects model Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 0.9$	93	ľ	1.46	[1.00; 2.02	1	70.9
Sev = OTHER ring S_hospitales en Beijing	3.90 3.2569		49.18	[0.08; 29110.25	0.2%	0.2
Fixed effect model		1		[0.08; 29110.25		
			40.40	[0.00, 23110.23	J U.Z.70	
Random effects model Heterogeneity: not applicable			49.18	[0.08; 29110.25	I	0.2
		l				
Sev = ARDS	-1 40 0 9800		0.25	10.05. 4.00	0 2494	2.4
Dreher M_UHA	-1.40 0.8608		0.25	[0.05; 1.33		2.4
Fixed effect model		\diamond	0.25	[0.05; 1.33] 2.4%	-
Random effects model			0.25	[0.05: 1.33		2.4
Heterogeneity: not applicable			0.2.0	[a.aa, 1.aa		£.4
Sev = PROGRESSION IN SEVER	ITV CATEGORY					
	0.79 0.7136	<u> </u>	2.20	[0.54; 8.92] 3.5%	3.5
		Line and the second sec	2.20	[0.54; 8.92		
Zhang L_WUH						3.5
Zhang L_WUH Fixed effect model		<u> </u>	2 20			
Zhang L_WUH Fixed effect model Random effects model		►	2.20	[0.54; 8.92	-1	0.0
Zhang L_WUH Fixed effect model Random effects model Heterogeneity: not applicable		>			-	0.0
Zhang L_WUH Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model		~	1.53	[1.18; 1.99] 100.0%	_
Zhang L_WUH Fixed effect model Random effects model] 100.0%	100.0

Candidate variable: Chronic gastric disease: History of peptic ulcer or gastritis, outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE SOTE	Odds Ratio	OR		Weight (fixed) (Weight random)
Zhen L_MC Bal X_WPH	-0.60 0.8549 0.88 0.4875 0.21 0.4888 -0.24 3.3522 - 0.24 0.2561		2.40 1.24 0.79 [0 1.28 1.35	[0.10; 2.94] [0.92; 6.25] [0.47; 3.22] 0.00; 563.79] [0.77; 2.11] [0.91; 1.99] [0.91; 1.99]	12.8% 12.7% 0.3%	4.2% 12.8% 12.7% 0.3% 46.4%
Sev = PROGRESSION I Zhao W_SXH Fixed effect model Random effects model Heterogeneity: not applicat	1.64 1.1709	SORY	5.14	0.52; 51.03] 0.52; 51.03] 0.52; 51.03]	2.2%	2.2%
Sev = CRITICAL (Sever Hu L_TH L J CHW Let P_BH (Multoentrico) Fixed effect model Random effects model Heterogenetty: / ² = 0%, 7 ² .	1.04 0.5955 0.76 0.4945 -2.47 3.2113	RM)	2.14 0.08 [2.29	[0.88; 9.05] [0.81; 5.64] 0.00; 45.87] [1.09; 4.79] [1.09; 4.79]		8.6% 12.5% 0.3% 21.3%
Fixed effect model Random effects model Heterogeneity: / ² = 0%, 2 ² Residual heterogeneity: / ²	- 0, p - 0.60	1 0.1 1 10 100	1.55	(1.10; 2.19) (1.10; 2.19)		100.0%

Candidate variable: Tachypnea, outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE SØTE	Odds Ratio	OR		95%-CI	Weight (fixed)	Weight (random)
Sev = ICU Huang C_JYH Fixed effect model Random effects model Heterogeneity: not applicable	2.85 0.8642	4.4	17.33 17.33 17.33	[3.19; [3.19; [3.19;	94.29] 94.29] 94.29]	1.3% 1.3%	18.5%
Sev = PROGRESSION IN SEVER Liu W_MC Fixed effect model Random effects model Heterogeneity: not applicable	RITY CATEGORY 1.37 1.0871		3.95 3.95 3.95	[0.47; [0.47; [0.47;	33.26] 33.26] 33.26]	0.8% 0.8%	16.2%
Sev = SEVERE (> 30 breathings Chen G TH Huang H_GEPH Colaneri M_PSM Hongying S_FAHWMU/SAHWMU Fixed effect model Random effects model Heterogenetit: I ² = 78%, τ ² = 3.1179	5.57 3.2495 4.06 1.1828 0.98 1.0172 J 0.18 0.1017			[0.45; 15 [5.68; [0.36; [0.98; [1.03; [0.78;	586.34j 19.63]	0.1% 0.7% 1.0% 96.0% 97.7% 	4.5% 15.3% 16.9% 24.0% 60.8%
Sev = CRITICAL (Severe ARDS Liu J_BDH Fixed effect model Random effects model Heterogeneity: not applicable	Shock or ARM) 4.02 3.2581		55.73	[0.09; 3 [0.09; 33 [0.09; 33	3069.56	0.1% 0.1%	4.5%
Fixed effect model Random effects model Heterogeneity: /² = 76%, t² = 2.4568 Residual heterogeneity: /² = 78%, p		0.001 0.1 1 10 1000	1.31 7.51	[1.08; [1.66;	1.60] 33.91]	100.0%	100.0%

Candidate variable: Hypoxemia, outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE SOTE	Odds Ratio	OR		95%-CI	Weight (fixed) (Weight (random)
Sev = PROGRESSION I Llu W_MC Fixed effect model Random effects model Heterogeneity: not applicat	2.17 0.7720	EGORY	8.77 8.77 8.77	[1.93; [1.93; [1.93;	39.82] 39.82] 39.82]	7.3% 7.3% —	15.0%
Sev = CRITICAL (Seven U J CHW Fixed effect model Random effects model Heterogeneity: not applicat	3.97 3.2074	ARM)	53.18 53.18 53.18	0.10;	28570.94] 28570.94] 28570.94]	0.4% 0.4% 	1.1%
Sev = SEVERE (> 30 br Ma K_YCH Zhang H_ZH LIX_TH Fixed effect model Random effects model Heterogeneity: 1 ² = 55%, t ²	11.75 4.4794 5.60 3.1868 2.99 0.2410	50%)	- 127161.00 [270.28 19.86 20.67 172.80	[0.52; 1 [12.38; [12.91;	493285.87] 139450.37] 31.85] 33.09] 12775.71]	0.2% 0.4% 75.0% 75.7%	0.6% 1.1% 54.5%
Sev = IMV Xu Y_FAHG Fixed effect model Random effects model Heterogeneity: not applicat	4.53 3.1992		92.94 92.94 92.94	0.18;	49135.11] 49135.11] 49135.11]	0.4% 0.4%	1.1%
Sev = ICU Yang L_YCPH Fixed effect model Random effects model Heterogeneity: not applicat	3.64 0.5194	* 0 0	38.18 38.18 38.18	[13.80; [13.80; [13.80;	105.67] 105.67] 105.67]	16.2% 16.2% 	26.8%
Fixed effect model Random effects model Heterogeneity: <i>I</i> ² = 18%, τ ² Residual heterogeneity: <i>I</i> ²		0.001 1 1000	21.66 23.21	[14.39; [12.07;	32.61] 1 44.62]	100.0%	 100.0%

Candidate variable: Dyspnea, outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE	seTE	Odds Ratio	OR		Weigh 95%-CI (fixed	Weight (random)
Sev = ARDS Wu C_WJH	1.45	0.3070	ê.	4.26	[2.34;	7.78] 2.8%	
Zhao W_BYH Dreher M_UHA	1.41	0.5948	4	4.08 4.50	[1.27; [1.37;	13.10] 0.8% 14.78] 0.7%	1.5%
Fixed effect model			è	4.27	[2.62;	6.95] 4.3%	
Random effects model Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 0.9$	9		en eller og en	4.27	[2.62;	6.95]	4.9%
Sev = ICU Huang C_JYH Wang D_ZH	3.02	1.1145	and at	20.40	[2.30;	181.26] 0.2%	
Wang D_ZH Qin X_SPH	1.98 7.50	0.4273 3.1907	£	7.25 1815.75	[3.14; [3.49; 9	16.76] 1.5% 43956.15] 0.0%	
Yang L_YCPH Lei S_RHZHTHC	4.30	0.5807	+	73.63	[23.59; [0.79;	229.82] 0.8% 13.381 0.5%	
Colombi D_GdSH	0.64	0.2803	1	1.90	[1.10;	3.29 3.4%	2.0%
Chen J_FAH Argenziano M_NYP/CUIMC	2.67	3.2586 0.1827		14.44 0.83	[0.02; [0.58;	8576.37] 0.0% 1.18] 8.0%	0.1%
Zheng X_FAH Fixed effect model	0.67	1.1880	-	1.96 1.80	[0.19; [1.38;	20.07] 0.2% 2.35] 14.6%	0.7%
Random effects model Heterogeneity: I^2 = 90%, τ^2 = 2.0862,	p < 0.01		n na	6.00	[1.90;	18.89]	10.5%
Sev = CRITICAL (Severe ARDS S Li K_CMU		r ARM) 0.8463		10.89	[2.07;	57.20] 0.4%	1.1%
Mo P_ZH	-0.42	0.5168	-F	0.66	[0.24;	1.82] 1.0%	1.6%
Peng YD_WU Wei-jie G_NHC	0.69	0.7224 0.2591	in the second se	1.98 5.93	[0.48; [3.57;	8.18] 0.5% 9.85] 4.0%	
Chen Y_multicentrico- FCMCH Chu J_TH	1.63	0.7325	_	5.10 0.13	[1.21; [0.02;	21.43] 0.5% 0.91] 0.3%	1.3%
Duan Q WPH	0.22	0.7889	+	1.24	0.27;	5.84] 0.4% 9.021 0.6%	1.2%
Liu T_UH Ying W_MC	2.26	0.5869	-	9.60	[3.04;	30.33 0.8%	1.5%
Shijiao Y_HHMU Hu L_TH	2.35 1.20	0.8602 0.5597	÷	10.48 3.32	[1.94; [1.11;	56.59] 0.4% 9.93] 0.9%	
Liu J_BDH Xu Y_GH	4.51 1.99	3.2309 1.3623	<u>+</u>	91.14 7.33	[0.16; [0.51;	51268.97] 0.0% 105.91] 0.1%	0.1%
FY_JH, SPHCC, TPH	2.46	0.2891		11.73	[6.66;	20.68] 3.2%	2.0%
Zhou M_MC Fixed effect model	0.68	0.3026		1.97 4.15	[1.09; [3.22;	3.57] 2.9% 5.35] 15.9%	2.0%
Random effects model Heterogeneity: I^2 = 75%, τ^2 = 0.8218,	p < 0.01		.	3.38	[1.89;	6.07]	19.5%
Sev = PROGRESSION IN SEVER		TEGORY 10.5597		- 900	0.00; 87632	52695.66] 0.0%	0.0%
Zhao W_SXH Chao C_NFHJCH	2.70	3.3387		14.93	[0.02; [0.51;	10376.38] 0.0% 9.06] 0.5%	0.1%
Wang X_DFH	0.73	0.2234		2.07	[1.33;	3.20] 5.3%	2.1%
Yan X_HNU Zhang L_WUH	2.56 0.75	0.4816 0.1928		12.92 2.11	[5.03; [1.45;	33.21] 1.2% 3.08] 7.2%	1.7%
BiQ_STPH Jia M_RHWU	2.05	0.6082	5	7.76	[2.36; [1.35;	25.55] 0.7% 41.72] 0.3%	1.5%
Fixed effect model	2.01	0.0750	ě.	2.64	[2.04;	3.42] 15.3%	
Random effects model Heterogeneity: $I^2 = 62\%$, $\tau^2 = 0.3062$,	p = 0.01		sta forse verse verse	3.80	[2.12;	6.81]	9.8%
Sev = SEVERE (> 30 breathings	OR Sat	<90%)					
Young BE_MC Jin-Jin Z_MC	0.79	1.5135 0.3840		2.20	[0.11; [0.92;	42.73] 0.1% 4.13] 1.8%	
Lu Jiatao_WHH	0.38	0.3402		1.46	0.75;	2.84] 2.3% 5.58] 0.6%	1.9%
Han Y_ RHWU Liu Yo_SCH	3.83	1.1910	Ť.	46.00	[4.46;	474.81] 0.2%	0.7%
Qi D_multicentrico Zhang G_ZHWU	1.33	0.3644	÷.	3.78 8.27	[1.85; [4.19;	7.73] 2.0% 16.32] 2.2%	1.9%
Zhen L_MC Tian S_57 hospitales	1.65 3.54	0.3294	<u>.</u>	5.23 34.35	[2.74;	9.97] 2.5% 125.50] 0.6%	1.9%
Lei L_CUTGH	3.85	1.1799	F	46.80	[4.63;	472.73] 0.2%	0.7%
Jing L_WUH Chen G_TH	-1.50 9.29	3.3505 4.4936		0.22 10791.00	[0.00; [1.61; 721	158.04] 0.0% 07467.02] 0.0%	
Bai X_WPH Chen X_FHC/LCH	1.40 1.88	0.4403 0.3794	4	4.06 6.57	[1.71; [3.12;	9.62] 1.4% 13.82] 1.9%	
Ma K_YCH	0.49	1.2525	5	1.63	[0.14]	19.00] 0.2%	0.7%
Wang G_PHTCC Wang Y_ZH(Multicéntrico)	2.35 1.69	0.4894 0.5164	a the star	10.45 5.44	[4.01; [1.98;	27.28] 1.1% 14.97] 1.0%	
Wang Z_UH Zhang H_ZH	1.17 2.30	0.6216 0.6397	t.	3.23 9.96	[0.96; [2.84;	10.93] 0.7% 34.91] 0.7%	1.4%
Jiancheng L_JH Cao M_SPHCC	1.03 3.24	0.3935	lá tr	2.80 25.52	[1.29; [6.55;	6.05] 1.7% 99.49] 0.6%	1.8%
Wang Y_CHW	0.46	0.4211	15. Te	1.58	[0.69;	3.62] 1.5%	1.8%
CM_FAHSYU FL_GHCTCPLA	7.77 2.04	3.1932 0.7393		2373.43 7.70	[1.81;	40057.68] 0.0% 32.81] 0.5%	
JX_WFPH MY_multicenter 43 hosp	7.07	3.2374 0.2821	2	1170.67 5.83	[2.05; 0 [3.35;	66974.12 0.0% 10.14 3.4%	
Colaneri M_PSM	0.07	0.7357 0.3783		1.08	[0.25;	4.55] 0.5% 14.98] 1.9%	
Xin L_CHWC/hospitales en Hunan Chen W_YH	5.75	3.2445	14	314.17	[3.40; [0.54; 1	81487.08 0.0%	0.1%
Minhua Y_ZHWU Xie H_WJH		3.2050 0.4738		1796.00 1.50	[3.36; 9 [0.59;	60262.37] 0.0% 3.80] 1.2%	
YuC_TH Zhang R RH		0.2431 0.7987	Ű.	1.34 31.10	[0.83; [6.50;	2.16] 4.5% 148.80] 0.4%	
Yang J WUH	0.83	0.5407	1	2.29	[0.79;	6.60] 0.9%	1.6%
Xie J_UHW ZhangX_MC	2.20	0.3640 0.7201	-	2.70 9.02	[1.32; [2.20;	5.51] 2.0% 37.00] 0.5%	1.3%
Zheng F_NHCFH LiX_TH		0.4886	ar and a second se	3.58 4.16	[1.37; [2.90;	9.33] 1.1% 5.97] 7.8%	
Li Y_TH Fixed effect model		1.2076		2.67	[0.25; [3.34;	28.44] 0.2%	0.7%
Random effects model Heterogeneity: $l^2 = 68\%$, $\tau^2 = 0.4797$,	p < 0.01			4.61	[3.44; [3.41;	4.47] 48.2% 6.23]	50.7%
Sev = IMV							
Xu Y_FAHG Liao Xuelian MC		0.6550 0.7362	14 - 41	2.36 0.95	[0.65; [0.23;	8.51] 0.6% 4.04] 0.5%	
Fixed effect model Random effects model	0.00	2.1002	ų,	1.58	[0.61;	4.13] 1.1%	
Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 0.3$	6		<u>↓</u> 	1.36	[0.01;	4.10]	2.070
Sev = OTHER Wentao X_IDH		0.7958		0.71	[0.15;	3.39] 0.4%	
Ying S_hospitales en Beijing Fixed effect model	3.87	1.1110	<u> </u>	47.78 2.97	[5.41; [0.84;	421.61] 0.2% 10.55] 0.6%	
Random effects model Heterogeneity: 1 ² = 89%, τ ² = 7.9040,	0<00		-	5.44	[0.09;	333.84]	1.9%
Fixed effect model				3.28	[2.96;	3.62] 100.0%	
Random effects model Heterogeneity: $l^2 = 76\%$, $\tau^2 = 0.6653$,	0 - 0 0		r that	4.23	[3.33;	5.38]	100.0%
Residual heterogeneity: 1 ² = 75%, p <	0.01		0.001 1 1000				

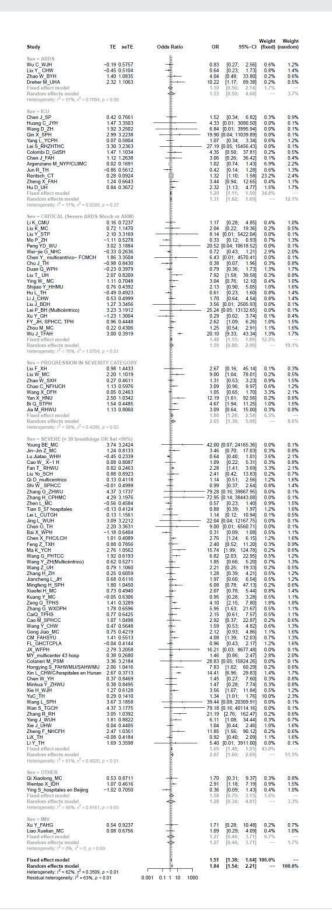
Candidate variable: Chest pain, outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	95%-CI		Weight (random)
Sev = CRITICAL (Severe ARDS S	hock or ARM)					
Li K_CMU	2.38 1.1468		10.86	[1.15; 102.77]	0.6%	1.3%
Mo P_ZH	-3.61 3.2204 -		0.03	[0.00; 14.98]	0.1%	0.2%
Peng YD_WU	-0.50 0.6155		0.61		2.0%	3.3%
	-0.29 1.2076	i	0.75		0.5%	1.2%
	-0.79 0.6884	_+	0.45		1.6%	2.9%
Shijiao Y HHMU	0.49 0.4948	14	1.63	[0.62; 4.31]	3.1%	4.3%
Hu L_TH	1.77 1.2423	<u> </u>		[0.52; 67.35]	0.5%	1.1%
	-0.48 0.7296	<u> </u>			1.4%	2.6%
		<u> </u>		[0.15; 2.57]		
	-1.27 3.3456			[0.00; 197.94]	0.1%	0.2%
	-0.04 0.6375	-11	0.97	[0.28; 3.37]	1.9%	3.2%
Zhou M_MC	0.49 0.3301	ł		[0.85; 3.11]	7.1%	6.0%
Fixed effect model		Pi		[0.82; 1.80]	19.0%	
Random effects model		연	1.16	[0.71; 1.89]		26.2%
Heterogeneity: $I^2 = 20\%$, $\tau^2 = 0.1258$, I	p = 0.25					
Sev = SEVERE (> 30 breathings ()R Sat <90%)					
	-2.88 3.1909	, i	0.06	[0.00; 29.27]	0.1%	0.2%
Fan T_ RHWU	0.80 0.2945	4		[1.25; 3.98]	8.9%	6.4%
Zhang H_CPHMC	-1.00 1.1483	Ē		[0.04; 3.51]	0.6%	1.3%
	1.24 0.5922	· [[3.45	[1.08; 11.02]	2.2%	3.5%
Zhen L_MC	-1.50 3.3505		0.00	[1.06; 11.02]		3.5%
				[0.00; 158.04]	0.1%	
Chen G_TH	2.23 1.0494	<u> </u>		[1.19; 72.99]	0.7%	1.5%
	-0.52 0.8306	<u>+ </u> !	0.60		1.1%	2.2%
Mingfeng H_SPH	2.25 0.4600	- + -		[3.86; 23.41]	3.6%	4.6%
Kuang Y_MC	0.56 0.4843	-++-	1.75		3.3%	4.4%
Zeng G_TPHS	1.57 0.7753	H+	4.80	[1.05; 21.92]	1.3%	2.4%
Cao M SPHCC	0.87 0.6919			[0.62; 9.29]	1.6%	2.8%
FL_GHCTCPLA	1.68 0.5844	li.	5.39	[1.71; 16.94]	2.3%	3.5%
JX_WFPH	0.18 1.1690	i		[0.12; 11.86]	0.6%	1.3%
Xin L_CHWC/hospitales en Hunan		<u>1</u>		[0.73; 6.71]	2.4%	3.7%
	-2.20 3.2089			[0.00; 59.87]	0.1%	0.2%
YuC_TH	0.57 0.1571	· 📙		[1.30; 2.40]		8.1%
	1.26 0.6263	li.				3.2%
Wang L_SPH		H+		[1.04; 12.09]	2.0%	
	-0.44 0.3322			[0.34; 1.23]	7.0%	6.0%
Li Y_TH	1.25 0.9449			[0.55; 22.30]		1.8%
Fixed effect model		19		[1.60; 2.42]	69.8%	
Random effects model		Ŷ	2.23	[1.50; 3.33]		57.2%
Heterogeneity: $I^2 = 54\%$, $\tau^2 = 0.3094$, I	o < 0.01					
Sev = ARDS						
Liu Y_ CHW	-0.25 0.7890		0.78	[0.17; 3.66]	1.2%	2.4%
Zhao W BYH	0.96 0.7292	44		[0.62; 10.86]		2.6%
Fixed effect model		<u> </u>		[0.52; 4.27]		
Random effects model		I.		[0.46; 4.80]		5.0%
Heterogeneity: $I^2 = 20\%$, $\tau^2 = 0.1476$, J	0 = 0.26	T	1.40	[3.40, 4.00]		3.070
Sev = IMV	0.01.0.7010	li	2.25	0.54. 0.443	1.45	2.00
Xu Y_FAHG	0.81 0.7319	T <u>r</u>		[0.54; 9.44]		2.6%
Fixed effect model				[0.54; 9.44]	1.4%	
Random effects model		₽	2.25	[0.54; 9.44]		2.6%
Heterogeneity: not applicable						
Sev = ICU						
Jun R TH	1.08 0.4265	<u> -</u>	2.02	[1.27; 6.77]	4.2%	4.9%
	1.00 0.4200	E C				4.8%
Fixed effect model		E		[1.27; 6.77]	4.2%	1.000
Random effects model		2	Z.93	[1.27; 6.77]		4.9%
Heterogeneity: not applicable						
Sev = PROGRESSION IN SEVERI	TY CATEGORY	, II				
BiQ STPH	0.68 0.5218	LL_	1.09	[0.71; 5.51]	2.8%	4.0%
	0.00 0.0218	II.				4.076
Fixed effect model		Ê		[0.71; 5.51]		
Random effects model		f?	1.98	[0.71; 5.51]		4.0%
Heterogeneity: not applicable						
Fixed effect model		11	1.92	[1.53; 2.16]	100.0%	
		L.				100.09/
Random effects model		*	1.85	[1.40; 2.43]		100.0%
Heterogeneity: 1 ² - 43%, τ ² - 0.2221, 1	0 < 0.01					
Residual heterogeneity: I ² = 45%, p <	0.01	0.001 0.1 1 10 1000				

Candidate variable: High fever (more than 39°C), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE se	TE (Odds Ratio	OR	95%-CI	Weight (fixed)	Weight (random)
Sev = ARDS Wu C_WJH Fixed effect model Random effects mode Heterogeneity: not applic:		963	-	2.15 2.15 2.15	[1.20; 3.83] [1.20; 3.83] [1.20; 3.83]	21.2% 21.2% 	10.6% 10.6%
Sev = ICU Huang C_JYH Fixed effect model Random effects mode Heterogeneity: not applica		336	101	0.46 0.46 0.46	[0.10; 2.07] [0.10; 2.07] [0.10; 2.07]	3.2% 3.2% 	4.9% 4.9%
Sev = CRITICAL (Seve Wei-jie G_NHC Liu T_UH Shijiao Y_HHMU Hu L_TH Liu J_BDH Xu Y_GH Fixed effect model Random effects mode Heterogenetly: J ² = 0%, t ²	0.29 0.6 2.35 3.2 3.52 3.3 1.38 0.6 -0.47 1.1 -1.25 3.2	155 152 - 187 131 165 197	++ ++ ++ ++ ++		[0.40; 4.45] [0.02; 5603.29] [0.05; 23585.56] [1.19; 13.21] [0.06; 6.03] [0.00; 168.77] [0.93; 4.44] [0.93; 4.44]	0.2% 0.2% 5.0% 1.4%	6.3% 0.4% 0.4% 6.3% 2.7% 0.4% 16.5%
Sev = SEVERE (> 30 b Zhang G_ZHWU Zhang H_CPHMC Tian S_57 hospitales Jing L_WUH Chen G_TH Chen X_FHC/LCH Wang Z_UH Zhang G_WXDPH Cao M_SPHCC Wang Y_CHW Wang L_SPH Fixed effect model Random effects model Random effects model	0.51 0.3 2.32 0.9 -0.55 1.0 0.62 0.8 0.62 0.9 -0.63 3.3 -0.41 0.8 1.63 0.4 1.18 0.4 0.14 0.7 2.63 1.2	225 103 733 734 734 734 735 724 705 705 705 727 705 727 705 727 705	***	1.67 10.13 0.58 1.05 1.87 5.12 3.27 1.15 13.82 2.30 2.24	[1.70; 60.29] [0.07; 4.74] [0.22; 5.08] [0.28; 12.31] [0.00; 369.29] [0.13; 3.42] [1.24; 8.59] [0.26; 5.09] [1.15; 165.38]	1.8% 2.9% 2.0% 0.2% 2.7% 8.4% 7.7% 3.2% 1.2% 44.8%	9.3% 3.9% 3.0% 4.6% 3.6% 0.4% 4.4% 7.8% 4.9% 2.3%
Sev = PROGRESSION Wang X_DFH Yan X_HNU Fixed effect model Random effects mode Heterogeneity: 1 ² = 83%,	-0.66 0.3 1.11 0.6	309 235	<u>+</u> ↓	0.52 3.03 0.81 1.17	[0.89; 10.30]	19.1%	9.6% 6.2%
Fixed effect model Random effects mode Heterogeneity: 1 ² - 45%, Residual heterogeneity: 1 ²	τ ² = 0.3386, μ		0.1 1 10 1	1.74 1.78	[1.33; 2.27] [1.17; 2.70]	100.0% 	100.0%

Candidate variable: Fever, outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition



Candidate variable: Rhinorrhea, outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	95%-CI		Weight (random)
Sev = CRITICAL (Severe ARD)	,					
Peng YD_WU	0.45 0.8413		1.57	[0.30; 8.17]	2.4%	3.9%
Wei-jie G_NHC	-0.52 0.7321		0.59	[0.14; 2.49]	3.1%	4.7%
Chu J_TH	0.96 3.3338			[0.00; 1802.56]		0.3%
Duan Q_WPH	-3.00 0.5809		0.05	[0.02; 0.16]		6.1%
Liu T_ UH	2.15 3.2103		8.59	[0.02; 4643.14]		0.4%
Ying W_ MC	-0.51 0.7463		0.60	[0.14; 2.59]	3.0%	4.5%
Shijiao Y_HHMU	-2.82 3.1945		0.06		0.2%	0.4%
Li J_CHW	0.24 1.4250		1.28	[0.08; 20.83]		1.7%
Wu J_TFAH	0.55 0.4157		1.73	[0.77; 3.90]	9.7%	8.2%
Fixed effect model		4	0.63	[0.38; 1.05]	24.4%	
Random effects model		4	0.62	[0.19; 2.02]		30.1%
Heterogeneity: $I^2 = 71\%$, $\tau^2 = 1.78$	00, <i>p</i> < 0.01					
Sev = SEVERE (> 30 breathing						
Young BE_MC	-1.79 3.3747			[0.00; 124.27]		0.3%
Lu Jiatao_WHH	-2.46 3.2045		0.09	[0.00; 45.75]	0.2%	0.4%
Liu Yo_SCH	-3.00 3.2187 -		0.05	[0.00; 27.40]	0.2%	0.4%
Qi D_multicentrico	-0.15 0.4050	+	0.86	[0.39; 1.91]		8.4%
Zhang H_CPHMC	-1.42 1.1248		0.24	[0.03; 2.19]		2.5%
Zhen L_MC	-3.25 3.1980 -			[0.00; 20.37]	0.2%	0.4%
Lei L_CUTGH	2.84 1.3127			[1.31; 225.37]	1.0%	1.9%
Jing L_WUH	-1.50 3.3505		0.22	[0.00; 158.04]		0.3%
Chen X_FHC/LCH	0.68 0.8515		1.97	[0.37; 10.44]	2.3%	3.8%
Huang H_GEPH	0.46 0.5167		1.58	[0.57; 4.35]	6.2%	6.9%
Kuang Y_MC	-3.24 3.1885 -		0.04	[0.00; 20.25]	0.2%	0.4%
Zeng G_TPHS	0.28 0.5988	<u></u>	1.32	[0.41; 4.26]	4.7%	5.9%
Hongying S_FAHWMU/SAHWM	IU -0.70 1.0815		0.50	[0.06; 4.13]	1.4%	2.6%
Chen W_YH	-1.44 3.2360		0.24	[0.00; 134.97]	0.2%	0.4%
YuC TH	1.02 1.1557	- <u>+</u>	2.78	[0.29; 26.78]	1.2%	2.4%
Wang L_SPH	-2.18 3.2085		0.11	[0.00; 60.85]	0.2%	0.4%
Fixed effect model		\$	1.08	[0.68; 1.72]	29.6%	
Random effects model		\$	1.08	[0.68; 1.72]		37.3%
Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p =$	0.54					
Sev = ARDS						
Zhao W_BYH	-0.06 0.8613	<u> </u>	0.94	[0.17; 5.11]	2.2%	3.7%
Dreher M UHA	2.32 3.3455		10.17	[0.01; 7165.01]	0.1%	0.3%
Fixed effect model		A 1		[0.21; 5.61]	2.4%	
Random effects model Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p =$	0.49		1.09	[0.21; 5.61]		4.1%
	0.45					
Sev = ICU Chen J FAH	-3.41 3.2591 -		0.03	[0.00; 19.70]	0.2%	0.4%
Argenziano M NYP/CUIMC	-0.00 0.2799	1	1.00	[0.58; 1.73]		10.3%
Fixed effect model	0.00 0.2133		0.97	[0.56; 1.68]		10.570
Random effects model		Ľ.	0.86	[0.21; 3.44]		10.6%
Heterogeneity: $I^2 = 8\%$, $\tau^2 = 0.4493$	2, <i>p</i> = 0.30	Ť	0.00	[0.21, 0.44]		10.070
Sev = OTHER						
Ying S_hospitales en Beijing	-1.38 3.3446		0.25	[0.00; 176.78]	0.1%	0.3%
Fixed effect model				[0.00; 176.78]		
Random effects model				[0.00; 176.78]		0.3%
Heterogeneity: not applicable				[]		
Sev = PROGRESSION IN SEV	ERITY CATEGORY					
Wang X DFH	0.43 0.3968		1.53	[0.70; 3.33]	10.6%	8.5%
Yan X HNU	-2.02 3.1963			[0.00; 69.78]		0.4%
Bi Q_STPH	0.14 0.3843	÷		[0.54; 2.44]		8.7%
Fixed effect model	-	\$		[0.76; 2.23]		
Random effects model		\$		[0.76; 2.23]		17.6%
Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p =$	0.68			,		
Fixed effect model		•	0.96	[0.75; 1.24]	100.0%	
Random effects model		4	0.89	[0.60; 1.31]		100.0%
Heterogeneity: $l^2 = 34\%$, $\tau^2 = 0.30$	09, p = 0.03					
Residual heterogeneity: /2 = 38%,	p = 0.02	0.001 0.1 1 10 1000				

Candidate variable: Cough, outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

TE seTE	Odds Ratio	OR		95%-CI	Weight (fixed)	Weight (random)
-0.02 0.3649	÷	0.98	[0.48;	2.01]	1.2%	1.5%
	1.	0.78	[0.36; [0.86;		1.0%	1.3%
0.30 0.5747	+	1.35	[0.44;	4.18]	0.5%	0.8%
	Į.	1.11	[0.71; [0.70;	1.73]	3.1%	4.2%
p = 0.33						
0.79 0.8751	-	2.20	[0.40;	12.23]	0.2%	0.4%
3.76 3.1966	+	43.02	[0.08; 22	629.01]	0.0%	0.0%
0.51 0.6992	Ŧ	1.67	[0.42;	6.56]	0.3%	0.6%
0.08 0.2682	t_	1.08	[0.64:	1.83]	2.2%	2.0%
-0.09 0.1676	4	0.92	[0.66;	1.27]	5.6%	2.7%
0.70 0.5807	t-		[0.64;	6.28]		0.8%
1.30 0.30 11		1.18	[0.93;	1.50]	10.5%	
p < 0.01	8	1.71	[1.03;	2.85]	-	9.1%
hock or ARM)						
	+	9.95	[0.31;	4.10]	0.1%	0.3%
1.22 3.4013	<u> </u>	3.37	[0.00; 2		0.0%	0.0%
0.41 0.6166	Ŧ	1.50	[0.45;	5.02]	0.4%	0.7%
0.04 0.2716	t_	1.04 4.50	[0.61;	1.78]	2.1%	2.0%
0.25 0.7511	+	1.29	[0.30;	5.61]	0.3%	0.5%
		0.95		2.02]	1.1%	1.4%
0.72 0.3512	-	2.05	[1.03;	4.08]	1.3%	1.5%
-0.03 0.4090	Ţ	0.97	[0.43;	2.16]	0.9%	1.4%
0.84 0.4421	+	2.31	[0.97;	5.48]	0.8%	1.1%
1.17 1.2609	÷.	3.22	10.27:	38.15]	0.1%	0.6%
-1.30 0.2800	+	0.27	[0.16;	0.47]	2.0%	1.9%
5.44 3.1688	f	- 231.21	0.46; 115	166.86]	0.0%	0.0%
		1.09 1.30	[0.89; [0.89;	1.34] 1.90]	14.3%	17,5%
p = 0.01						
3.46 3.3255		31.67	10.05 21	444 233	0.0%	0.0%
0.06 0.6584	+	1.06	[0.29;	3.85]	0.4%	0.6%
-0.35 0.3808 -0.44 0.5446	1	0.71		1.49]	1.1%	1.4%
0.11 0.2117	÷	1.12	[0.74;	1.70]	3.5%	2.4%
0.97 0.6379 0.37 0.2150	t.	2.63	10.95	9.19]	3.4%	0.7%
0.82 0.3061	ŀ	2.27	[1.25;	4,15	1.7%	1.8%
0.23 0.0007	ł	1.30	[1.03;	1.64]	0.4%	0.6%
p = 0.23	í.	1.23	10.20	rival		10.0 %
OR 5at <90%)		8753	1020425		121610	10000
0.00 1.3416 1.01 0.4636		2.75	[0.07;	13.87]	0.7%	0.2%
-0.07 0.2280	t	0.93	[0.59;	1.45]	3.0%	2.3%
1.25 0.2595	T-	3.48	[2.09;	5.79]	2.3%	0.9%
-0.92 0.7853	-1	0.40	[0.09;	1.86]	0.3%	0.5%
-0.05 0.4071	1	0.95	[0.43;	2.10]	0.9%	1.6%
0.22 0.3249	t	1.25	[0.66;	2.36]	1.5%	1.7%
0.68 0.3540	+	1.98	[0.99;	3.95]	1.3%	1.5%
0.42 0.3262	t	1.52	[0.80;	2.87]	1.5%	1.6%
0.22 0.9145	+	1.25	[0.21;	7.50]	0.2%	0.4%
-1.35 1.2599 0.21 0.4283	-1	0.26	[0.02; [0.53;	2.871	0.1%	0.2%
0.62 0.3409	F	1.86	[0.95;	3.62]	1.3%	1.6%
	T.	2.10	[0.74;	3.04]	0.5%	0.8%
0.65 0.3780	+	1.91	[0.91;	4.00]	1.1%	1.4%
0.11 0.6041	1	1.11	[0.34;	3.63]	0.4%	1.0%
-0.28 0.5627	+	0.76	0.25;	2.28]	0.5%	0.8%
-0.62 0.4853	-	0.54	[0.21;	1.39]	0.7%	1.2%
0.82 0.4914	E	2.28	[0.87;	5.96]	0.6%	1.0%
0.42 0.4205	F	1.52	[0.67;	3.47]	0.9%	1.2%
0.50 0.2665	1	1.65	[0.98;	2.77]	2.2%	2.0%
-0.55 0.4985	4	0.58	[0.22;	1.53]	0.6%	1.0%
-0.42 0.4095 0.34 0.3993	1	0.66	[0.29; [0.64]	1.47]	0.9%	1.3%
4.16 3.1955	+	64.31	[0.12; 33	747.31	0.0%	0.0%
0.62 0.2708	1	1.85	[1.09; [0.19;	2.61]	0.4%	2.0%
0.61 0.4553	t	1.84	[0.75;	4,49]	0.8%	1.1%
0.97 0.7501	Į.	2.64	[0.61;	11.50]	0.3%	0.5%
0.04 0.5191	t	1.04	[0.38;	2.88]	0.6%	0.9%
-0.04 0.6505	Ŧ	0.96	[0.27:	3.43	0.4%	0.6%
0.68 0.5514	t_		[0.67;	5.84]		0.8%
0.64 0.5348	-	1.90	[0.67;	5.43]	0.5%	0.9%
0.40 0.4368	Ţ	1.17	[0.58;	2.34]	1.2%	1.5%
-0.03 0.1993	1	0.97	[0.66;	1.44]	3.9%	2.5%
-0.10 0.8893	1	1.39	[1.25;	1.53]	0.2%	0.4%
p = 0.13	1	1.37	[1.21;	1,56]		55.2%
-0.66 1.1825		0.51	[0.05;	5.22]	0.1%	0.2%
-0.06 0.4479 0.23 0.5541	1	0.94	0.39;	2.26]	0.8%	1.1%
	4	0.99	0.52;	1.91]	1.4%	
8	Î	0.99	10.52;	1.91]	-	2.2%
		1.41	10.38;	5.26]	0.3%	0.6%
0.34 0.6712			10 00	1 000	0.34	0.04
0.34 0.6712 -0.93 0.7298	4	0.39	[0.09; [0.30;	1,65]	0.3%	0.5%
-0.93 0.7298	400-	0.39	[0.09; [0.30; [0.22;	1,65] 2.07] 2.69]		1.1%
	100	0.39	[0.30;	2.07] 2.69]		
	-0.02 0.3649 -0.02 0.3649 1.07 0.224 0.30 0.5747 -0.30 0.5747 -0.30 0.5747 -0.30 0.5747 -0.30 0.5747 -0.50 0.5763 -0.50 0.5763 -0.50 0.5692 -0.50 0.565 -0.50 0.50 -0.50 0.50 -0.	-0.02 0.3849 -0.22 0.3849 -0.30 0.5747 -0.30 0.5747 -0.50 0.5751 -0.50 0.5697 -0.50 0.569 -0.50 0.559 -0.50 0.50 0.559 -0.50 0	-0.02 0.3649 -0.02 0.3649 -0.02 0.3649 -0.02 0.3649 -0.03 0.5774 -0.03 0.5774 -0.13 0.79 0.8751 -0.33 0.79 0.8751 -0.33 0.79 0.8751 -0.08 0.1675 -0.09 0.175 -0.00 0.4090 -0.07 0.150 -0.00 0.4090 -0.07 0.150 -0.00 0.4090 -0.07 0.150 -0.00 0.4090 -0.07 0.200 -0.00 0.4090 -0.00 0.400 -0.00 0.400 -0.00 0.4000 -0.00 0.4000 -	-0.22 0.3649 -0.23 0.3649 -0.24 0.3645 -0.30 0.5747 -1.35 0.044 -0.13 0.05747 -1.35 0.044 -1.31 0.76 -1.31 0.76 -1.31 0.76 -1.31 0.76 -1.31 0.76 -1.31 0.040 -1.31 0.76 -1.31 0.040 -1.31 0.05 -1.31 0.05 -1.30 0.05 -1.	TE seTE Odds Raio OR 95%-CI -0020 3849 -078 0.36 201 0.37 0.36 201 0.30 0.5747 -0.55 0.36 1.35 0.44 2.91 10.86 951 0.30 0.5747 -0.55 0.44 4.18 1.11 10.71; 1.73 0.30 0.5747 -0.55 0.46 2.20 10.46 1223 0.70 0.5807 -0.76 0.40 1.28 0.66 1.27 0.51 0.6992 -0.66 1.66 1.66 1.29 0.66 1.66 0.70 0.5807 - 2.01 1.046 6.65 1.60 1.03 2.61 0.12 0.66604 - 1.27 10.33 4.10 10.33 4.50 0.22 0.01666 - 9.95 11.24 79.55 1.20 0.12 0.6661 - 1.27 1.033 4.51 1.03 0.51 0.12 0.6661 - 1.27 1.036 6.51 <	TE odds Ratio OR 9%-CI (fixed) -020 03649 - 076 036: 170 125: 036: 170 107 06200 - 291 086: 9810 044: 058; 030 030 05747 - 135 076: 1086; 120: 010; 123; 028; 0370 079 08751 - 220 040; 123; 028; 030; 0574 076: 0876 - 096; 024; 046; 033; 056; 033; 056; 0358; 056; 0358; 056; 0166; 022; 0358; 010; 056; 0229; 010; 056; 0166; 022; 010; 056; 0170; 05807 070: 08807 - 167; 026; 2249; 010; 056; 0170; 058; 0170; 0166; 0170; 026; 0171; 058; 0170; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010; 0176; 010;

Candidate variable: Fatigue, outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE	seTE	Odds Ratio	OR	9	5%-CI	Weight (fixed)	Weight (random)
Sev = ICU	0.55	0.0777			10.10	0.00	0.00	
Huang C_JYH Wang D_ZH		0.6777 0.4699		1.80 2.16	[0.48; [0.86;	6.81] 5.44]	0.5% 1.0%	1.1% 1.6%
Yang L_YCPH		0.4091		1.91	[0.86;	4.26]	1.3%	1.8%
Lei S RHZHTHC		0.4091	_ <u>[</u>	1.85	[0.38;	9.081	0.3%	0.8%
Colombi D_GdSH		0.4037	-	1.03	[0.47;	2.27]	1.4%	1.8%
Chen J FAH		0.9663		1.06	0.16;	7.06	0.2%	0.6%
Jun R_TH		0.4394		4.43	[1.87;	10.47]	1.2%	1.7%
Zheng X_FAH	1.42	0.8914	+	4.12	[0.72;	23.62]	0.3%	0.7%
Fixed effect model			8	2.00	[1.38;	2.90]	6.2%	40.000
Random effects model Heterogeneity: I ² = 2%, τ ² = 0.0052, p	= 0.42		\$ \$	2.00	[1.38;	2.92]		10.2%
Sev = CRITICAL (Severe ARDS S					10.50			
Liu K_MC Mo P_7H		0.6324		2.00 0.52	[0.58;	6.91]	0.6% 2.0%	1.2% 2.1%
Mo P_ZH Wei-jie G_NHC	-0.65 -0.46		1	0.52	[0.27; [0.38;	1.00] 1.05]	3.3%	2.1%
Chen Y multicentrico- FCMCH	-0.62			0.54	[0.11;	2.53]	0.4%	0.9%
Chu J TH	-1.47	0.7869		0.23	0.05;	1.08]	0.4%	0.9%
Duan Q_WPH	-0.37	0.3844		0.69	[0.33;	1.47]	1.5%	1.9%
Liu T_ UH		1.0761		10.29	[1.25;	84.83]	0.2%	0.5%
Liu J_BDH		0.6119		2.19	[0.66;	7.27]	0.6%	1.2%
Xu Y_GH Zhou M_MC		1.2914	<u> </u>	2.86	[0.23;	35.91]	0.1% 2.7%	0.4%
Zhou M_MC Fixed effect model	0.19	0.2875	<u>T</u>	1.21 0.83	[0.69; [0.63;	2.13]	2.7%	2.2%
Random effects model			4	0.83	[0.63; [0.58;	1.44]		13.6%
Heterogeneity: $I^2 = 52\%$, $\tau^2 = 0.2296$, I			den den en e					
Sev = SEVERE (> 30 breathings C Jin-Jin Z_MC	OR Sat -0.13		<u> </u>	0.87	[0.38;	2.00]	1.3%	1.7%
Jin-Jin Z_MC Lu Jiatao_WHH	-0.13		1	0.87	[0.36;	1.28	3.3%	2.3%
	-0.46		-	0.63	[0.38;	1.06]	3.2%	2.3%
Liu Yo_SCH		0.8339	<u>+</u>	3.52	[0.69;	18.05]	0.3%	0.8%
Qi D_multicentrico	-0.13	0.3699	*	0.88	[0.42;	1.81	1.6%	1.9%
Zhang G_ZHWU	0.39	0.3588	-	1.47	[0.73;	2.98]	1.7%	2.0%
Zhang H_CPHMC	-0.71	0.6996		0.49	[0.12;	1.94]	0.5%	1.0%
Zhen L_MC	0.55	0.3103	E .	1.74	[0.95;	3.20]	2.3%	2.2%
Tian S_57 hospitales		0.3516	ŧ	1.45	[0.73;	2.89]	1.8%	2.0%
Lei L_CUTGH		1.1246	<u> </u>	10.50	[1.16;	95.17]	0.2%	0.5%
Jing L_WUH		0.6880 3.2538	- F .	1.49	[0.39;	5.72]	0.5%	1.0%
Chen G_TH Bai X WPH		3.2538 0.3547	-	41.43 [1.46	0.07; 24 [0.73;	375.31] [2.92]	0.0% 1.8%	0.1% 2.0%
Chen X_FHC/LCH		0.3547	-	2.87	[0.73; [1.54;	5.35]	2.2%	2.0%
	-0.04			0.96	[0.25]	3.66]	0.5%	1.1%
Ma K YCH		0.6020	i	6.66	[2.05;	21.68	0.6%	1.2%
Wang G_PHTCC		0.3651	-	2.65	[1.30;	5.42	1.7%	2.0%
Wang Z_UH	0.41	0.6012		1.50	[0.46;	4.87	0.6%	1.2%
Zhang H_ZH	0.16	0.4921	- <u>k</u> -	1.18	[0.45;	3.09	0.9%	1.5%
Huang H_GEPH		0.4155		1.91	[0.84;	4.30]	1.3%	1.8%
Jiancheng L_JH	-1.20			0.30	[0.07;	1.32]	0.4%	0.9%
Mingfeng H_SPH		0.5196		4.74	[1.71;	13.11]	0.8%	1.4%
	-1.50			0.22	[0.06;	0.78]	0.5%	1.1%
Zeng G_TPHS CaiQ_TPHS		0.3232 0.6752	-	2.66 1.25	[1.41; [0.33;	5.01] 4.71]	2.1% 0.5%	2.1% 1.1%
Cao M_SPHCC		0.5200		1.25	[0.33, [0.40]	3.04]	0.5%	1.1%
Wang Y_CHW	-0.75		_	0.47	[0.40;	1.12	1.2%	1.7%
FL GHCTCPLA		0.4948	£	3.79	[1.44;	10.01	0.9%	1.5%
JX_WFPH		0.7909		2.94	0.62	13.86	0.4%	0.9%
MY_multicenter 43 hosp		0.2689	-	2.56	[1.51;	4.34]	3.1%	2.3%
Colaneri M_PSM	-2.56	3.2596		0.08	[0.00;	46.06]	0.0%	0.1%
Hongying S_FAHWMU/SAHWMU				0.97	[0.33;	2.84]	0.7%	1.4%
Xin L_CHWC/hospitales en Hunan Chen W_YH		1.1439		1.67 1.23	[0.86; [0.13;	3.23]	2.0% 0.2%	2.1% 0.5%
YuC_TH		0.1165	C	1.31	[1.05;	1.65]	16.5%	2.8%
Wang L_SPH		0.6978	÷	3.36	[0.86;	13.18]	0.5%	1.0%
Wan S TGCH		0.6948	k	3.52	0.90	13.73]	0.5%	1.0%
Zhang R_RH		0.5811	i	12.37	[3.96;	38.64	0.7%	1.3%
Yang J_WUH	0.19	0.5319	- <u>F</u> -	1.21	[0.42;	3.42]	0.8%	1.4%
Zheng F_NHCFH		0.4073	1	1.67	[0.75;	3.72]	1.4%	1.8%
LIX_TH		0.1712		1.10	[0.79;	1.54]	7.6%	2.7%
Li Y_TH Fixed effect model	-1.69	0.9275		0.18	[0.03; [1.25;	1.14]	0.3%	0.7%
Random effects model			6	1.40	[1.25; [1.22;	1.57]	00. ∠ %	62.0%
Heterogeneity: $I^2 = 61\%$, $\tau^2 = 0.2329$, I	o < 0.01							
Sev = ARDS Liu Y_CHW		0.3980	1. 	2.44	[1.12;	5.33]	1.4%	1.8%
Zhao W_BYH		0.7965		0.22	[0.05;	1.06]	0.4%	0.9%
Dreher M_UHA Fixed effect model	-4.26	3.2032 -		0.01 1.43	[0.00; [0.71;	7.53] 2.86]	0.0% 1.8%	0.1%
Random effects model			4	0.52	[0.05;	5.29]	1.0%	2.8%
Heterogeneity: $I^2 = 79\%$, $\tau^2 = 2.7393$, I	0 < 0.01			0.32	[0:00;	5.23		2.0 /0
Sev = IMV	0.04	0.6312		2.57	10.75	9.00	0.6%	1.2%
Xu Y_FAHG Liao Xuelian_MC	0.94 -0.96			2.57	[0.75; [0.08;	8.86] 1.94]	0.6%	1.2%
Fixed effect model	0.30	0.0210		1.28	[0.48;	3.41]	0.3%	0.0 %
Random effects model Heterogeneity: $I^2 = 70\%$, $\tau^2 = 1.2672$, I	n = 0.07		-	1.07	[0.17;	6.87]		2.0%
	v = 0.07							
	-0.86	0.5966		0.42	[0.13;	1.36]	0.6%	1.2%
Fixed effect model			4	0.42	[0.13;	1.36]	0.6%	
Random effects model Heterogeneity: not applicable			\$	0.42	[0.13;	1.36]		1.2%
Sev = PROGRESSION IN SEVERI	TY CAT	EGORY	ie ie					
Chao C_NFHJCH		0.5759	-	1.33	[0.43;	4.12]	0.7%	1.3%
Yan X_HNU	0.69	0.4357	<u>k</u>	1.98	[0.84;	4.66]	1.2%	1.7%
Zhang L WUH	-0.06	0.1923	ų.	0.94	0.65;	1.38	6.1%	2.6%
Bi Q_STPH		0.3093	*	3.54	[1.93;	6.49]	2.3%	2.2%
Jia M_RHWU	-0.18	1.0593	1	0.83	[0.10;	6.65]	0.2%	0.6%
Fixed effect model			R	1.41	[1.06;	1.88]	10.5%	0.201
Random effects model Heterogeneity: I ² = 72%, τ ² = 0.3619, I	o < 0.01			1.62	[0.83;	3.16]		8.3%
Fixed effect model				1.34	[1.22;	1.47]	100.0%	
Random effects model			jo l	1.41	[1.19;	1.68		100.0%
Heterogeneity: / ² = 61%, τ ² = 0.2578, /								

Candidate variable: Diarrhea, outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	95%-CI	Weight (fixed)	Weight (random)
Sev - ICU		1				
Huang C_JYH	-1.58 3.3510			[0.00; 146.02]		0.0%
Wang D_ZH	0.85 0.5793		2.35	[0.75; 7.31]	1.0%	1.4%
Qin X_SPH Yang L_YCPH	-0.27 1.2444		0.76	[0.07; 8.76]	0.2%	0.3%
Yang L_YCPH	0.52 0.6848	T	1.68	[0.44; 6.42]	0.8%	1.1%
Lei S_RHZHTHC	0.25 1.4584	-	1.29	[0.07; 22.41]	0.2%	0.3%
	-0.19 0.1827		0.83	[0.58; 1.18]	10.6%	6.6%
Zheng X_FAH	0.67 1.1880	-T.	1.96	[0.19; 20.07]		0.4%
Fixed effect model	0.01 1.1000	5	0.95	[0.69; 1.31]	13.2%	
Random effects model		4	0.95	[0.69; 1.31]		10.3%
Heterogeneity: $l^2 = 0\%$, $c^2 = 0$, $p = 0.7$.	3			faces: could		
Sev - CRITICAL (Severe ARDS S Mo P_ZH	0.75 0.8527	+	2.12	[0.40; 11.30]	0.5%	0.7%
Peng YD WU	-0.09 0.8126	-	0.91	[0.19; 4.48]		0.8%
Wei-jie G NHC	0.51 0.5415	-	1.66	[0.57; 4.80]	1.2%	1.6%
	-0.79 1.2072		0.45	[0.04; 4.82]	0.2%	0.4%
Chu J_TH	2.08 3.2342		7.97	0.01; 4515.72	0.0%	0.1%
Chu J_TH Liu T_UH	-1.10 0.7078		0.33	[0.08; 1.33]	0.7%	1.0%
Ying W_MC	1.29 0.6392		3.65	[1.04; 12.77]	0.9%	1.2%
Shijiao Y_HHMU	0.66 0.6437		1.94	[0.55; 6.84]	0.9%	1.2%
	-0.17 0.4372	+	0.85	[0.36; 1.99]	1.8%	2.3%
	-0.72 1.1349		0.49	[0.05; 4.51]	0.3%	0.4%
	-0.21 0.5102	Ť	0.81	[0.30; 2.21]	1.4%	1.8%
Zhou M_MC	0.25 0.4106	t	1.29	[0.58; 2.88]	2.1%	2.5%
Wu J_TFAH	2.73 1.0884		15.27	[1.81; 128.94]	0.3%	0.4%
Fixed effect model Random effects model		l.	1.23	[0.87: 1.76]	10.8%	14.2%
Heterogeneity: 1 ² = 26%, x ² = 0.1531, J	p = 0.19	T I	1.60	favore recol		1942.09
Sev - SEVERE (> 30 breathings 0 Young BE_MC	-2.96 3.2592 -		0.05	[0.00; 30.75]	0.0%	0.1%
Jin-Jin Z_MC	0.42 0.5067	+-	1.52	[0.56; 4.11]	1.4%	1.8%
Lu Jiatao_WHH	-1.23 0.7475		0.29	[0.07; 1.27]	0.6%	0.9%
Fan T_ RHWU	-0.18 0.4366	+	0.84	[0.36; 1.97]	1.8%	2.3%
Liu Yo SCH	0.23 0.9425	+	1.26	[0.20; 7.97]	0.4%	0.6%
Qi D_multicentrico	0.65 0.7087	+	1.91	[0.48; 7.68]	0.7%	1.0%
Zhang G_ZHWU	0.61 0.4495	<u> 4</u>	1.83	[0.76; 4.43]	1.7%	2.2%
Zhang H_CPHMC	0.68 0.6814		1.97	[0.52; 7.48]	0.8%	1.1%
	-0.84 0.4537	-+-	0.43	[0.18; 1.05]	1.7%	2,1%
	-1.92 3.2286		0.15	[0.00; 82.05]	0.0%	0.1%
Jing L_WUH	1.55 1.2764	+	4.73	[0.39; 57.69]	0.2%	0.3%
	-1.35 1.2599	+	0.26	[0.02; 3.06]	0.2%	0.3%
Chen X_FHC/LCH	0.21 0.5261	Ť	1.23	[0.44; 3.44]	1.3%	1.7%
Feng Z_TXH	1.55 0.9138		4.69	[0.78; 28.13]	0.4%	0.6%
Ma K_YCH	2.05 0.9103		7.75	[1.30; 46.15]	0.4%	0.6%
	-0.97 1.0509	-+	0.38	[0.05; 2.97]	0.3%	0.5%
Wang Z_UH	-0.02 0.8542	-	0.98	[0.18; 5.22]	0.5%	0.7%
Zhang H_ZH	0.77 0.6820	+	2.17	[0.57; 8.26]	0.8%	1.1%
Jin X_MC	1.21 0.3155	+	3.36	[1.81; 6.24]	3.5%	3.7%
Jiancheng L_JH	0.69 0.8253		1,99	[0.40; 10.05]	0.5%	0.7%
Zeng G_TPHS	0.11 0.4289	T	1.12	[0.48; 2.58]	1.9%	2.3%
CaiQ TPHS	1.25 0.6876		3.48	[0.90; 13.40]	0.7%	1.0%
Cao M_SPHCC			3.74		0.6%	0.1%
Gong Jiao_MC FL_GHCTCPLA	1.32 0.7614		0.80	[0.84; 16.65] [0.09; 7.46]	0.3%	0.4%
JX WFPH	0.86 0.7757	1.	2.36	[0.52; 10.78]	0.6%	0.8%
MY multicenter 43 hosp	-0.23 0.4869	1	0.79	[0.31; 2.06]	1.5%	1.9%
Colaneri M_PSM	1.24 1.2669		3.47	[0.29; 41.53]	0.2%	0.3%
Xin L_CHWC/hospitales en Hunan		+	1.25	[0.37: 4.25]	0.9%	1.3%
	-0.24 3.3522		0.79	[0.00; 563.79]	0.0%	0.0%
Xie H_WJH	0.98 0.8036	+	2.67	[0.55; 12.88]	0.5%	0.8%
YuC TH	0.20 0.2368	6	1.22	[0.76; 1.93]	6.3%	5.2%
Wang L SPH	-2.18 3.2085		0.11	[0.00; 60.85]	0.0%	0.1%
Zhang R_RH	2.17 0.8668	ş	8,80	[1.61; 48.12]	0.5%	0.7%
Yang J_WUH	1.07 0.8218	÷	2.92	[0.58; 14.60]	0.5%	0.8%
Zhang L_WUH	0.08 0.1880	- P	1,09	[0.75; 1.57]	10.0%	6.4%
	-0.00 0.4139	+	1.00	[0.44; 2.24]		2.5%
	-1.39 1.0515		0.25	[0.03; 1.95]		0.5%
	-0.10 0.1823		0.91	[0.64; 1.30]	10.6%	6.6%
LIT_IN	-0.98 1.2076		0.38	[0.04; 4.00]	0.2%	0.4%
Fixed effect model Random effects model			1.23	[1.05; 1.44] [1.06; 1.67]	55.2%	55.1%
Random effects model Heterogeneity: $t^2 = 31\%$, $\tau^2 = 0.1230$, (0.03		1.33	[1760]; 1/0/]		33,176
Sev – OTHER Qi Xiaolong_MC	-1.15 1.4793		0.32	[0.02; 5.78]	0.2%	0.2%
Wentao X_IDH	0.36 0.6294	-	1.44	[0.42, 4.94]	0.9%	1.2%
	-0.59 1.1535	-+-	0.56	[0.06; 5.33]		0.4%
Fixed effect model	1.1000	4	0.99	[0.36; 2.72]	1.3%	
Random effects model		+	0.59	[0.36; 2.77]	-	1.9%
Heterogeneity: $l^2 = 0\%$, $t^2 = 0$, $p = 0.5$	5 (
Sev - ARDS						
Liu Y CHW	0.06 0.6120	+	1.06	[0.32; 3.53]	0.9%	1.3%
Zhao W_BYH	-1.17 3.3434		0.31	[0.00; 218.20]	0.0%	0.0%
Dreher M_UHA	1.39 0.8740	+	4.00	[0.72; 22.18]		0.7%
Fixed effect model				[0.60; 4.19]		
Random effects model		P	1.59	[0.60; 4.19]		2.0%
Heterogeneity: $l^2 = 0\%$, $r^2 = 0$, $p = 0.4$	1					
Sex - PROGRESSION IN SEVERI	TY CATEGORY					
Zhao W_SXH	0.51 0.8395	-	1.67	[0.32; 8.64]	0.5%	0.7%
	-0.72 1.1874		0.48	[0.05; 4.97]	0.2%	0.4%
	0.16 0.2821	4	1.18	[0.68; 2.05]	4.4%	4.2%
Chao C_NFHJCH	0.69 0.6807	+	1,99	[0.52, 7.55]	0.8%	1.1%
Chao C_NFHJCH Wang X_DFH		10	1.63	[1.08; 2.47]	7.9%	5.8%
Chao C_NFHJCH Wang X_DFH Yan X_HNU	0.49 0 2113	2 ¹⁰		10.74 2.47	4.0%	4.0%
Chao C_NFHJCH Wang X_DFH Yan X_HNU Zhang L_WUH	0.49 0.2113 0.24 0.2966	-	1.27		1000	
Chao C_NFHJCH Wang X_DFH Yan X_HNU Zhang L_WUH Bi Q_STPH	0.24 0.2966	-Ť	1.27 2.82	0.27: 30.021	0.2%	0.478
Chao C_NFHJCH Wang X_DFH Yan X_HNU Zhang L_WUH BIQ_STFH Jia M_RHWU		+	2.82	[0.71; 2.27] [0.27; 30.02]		0.4%
Chao C_NFHJCH Wang X_DFH Yan X_HNU Zhang L_WUH Bi Q_STPH Ji M_RPHVU Fixed effect model Random effects model	0.24 0.2966	4	2.82	[1.00; 1.87]	0.2%	16.5%
Chao C_NFHJCH Wang X_DFH Yan X_HNU Zhang L_WUH BI Q_STPH Jia M_RHWU Fixed effect model	0.24 0.2966	-	2.82	[0.71; 2.27] [0.27; 30.02] [1.00; 1.87] [1.00; 1.87]		
Chao C, NFHJCH Wang X, OFH Yan X, INU Zhang L, WUH Bi Q, STPH Jia M, EHWU Fixed siffect model Random effects model Heterogenety: 7 ² = 0%, x ² = 0, p = 0.8	0.24 0.2966		2.82 1.43 1.43	[1.00; 1.87] [1.00; 1.87]	18.1%	
Chao C_NFHJCH Wang X_DFH Xan X_HNU Zhang L_WUH Bio_STPH Jia M_RHWU Faxed affect model Random effects model	0.24 0.2966 1.04 1.2061		2.82 1.43 1.43	[1.00; 1.87]	10.0%	

Candidate variable: Anemia, outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE SeTE	Odds Ratio	OR	95%-CI		Weight (random)
Sev = SEVERE (> 30 breath) Zhen L_MC Chen X_FHC/LCH Ma K_YCH Hongying S.FAHWMU/SAHW Chen W_YH YUC_TH Zheng F_NHCFH Fixed effect model Random effects model Heterogenetiy: J ² = 32%, x ² = 0.0	0.69 0.3326 -0.24 0.5639 1.13 0.5352 /MU 0.39 1.1561 1.74 0.7698 0.25 0.1044 -0.25 0.7968		2.00 [1.0 0.79 [0.2 3.10 [1.0 1.47 [0.18 5.70 [1.26 1.29 [1.0 0.78 [0.1 1.37 [1.1 1.58 [1.0	6; 2.37] 8; 8.84] 5; 14.17] 5; 25.77] 5; 1.58] 6; 3.71] 4; 1.65]	1.5% 1.6% 0.3% 0.8% 42.7% 0.7%	1.3%
Sev = ICU Jun R_TH Rentsch_CT Fixed effect model Random effects model Heterogeneity: J ² = 0%, τ ² = 0, p	0.31 0.4725 0.00 0.1066 = 0.52		1.36 [0.5 1.00 [0.8 1.02 [0.8 1.02 [0.8	1; 1.23] 3; 1.24]	41.0% 43.1%	
Bev = CRITICAL (Severe AR Zhou M_MC Fixed effect model Random effects model Heterogeneity: not applicable	DS Shock or ARM) -0.34 0.3052		0.71 [0.3 0.71 [0.3 0.71 [0.3	9; 1.29]	5.0%	12.1%
Fixed effect model Random effects model Heterogeneity: $l^2 = 46\%$, $\tau^2 = 0.0$ Residual heterogeneity: $l^2 = 25\%$		0.1 0.5 1 2 10	1.17 [1.0 1.24 [0.9			100.0%

Candidate variable: Neutrophil count increase (per 1 x 10⁹ U/L), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE	seTE	Odds Ratio	OR	95%-CI	Weight (fixed)	Weight (random)
Sev = ARDS Wu C_WJH Yu T_DPHNH Fixed effect model Random effects model Heterogenetly: 1 ² = 42%, t ²	-0.08	0.0264 0.1694)4, p = 0.19	●	0.93 1.15	[1.10; 1.22] [0.67; 1.29] [1.10; 1.21] [0.92; 1.32]	2.0% 84.4%	13.6%
Sev = CRITICAL (Seven Mo P_ZH Fixed effect model Random effects model Heterogeneity: not applicat	0.05	Shock or ARM 0.0916	+++++++++++++++++++++++++++++++++++++++	1.05	[0.88; 1.26] [0.88; 1.26] [0.88; 1.26]	6.9%	
Sev = SEVERE (> 30 bro Han Y_RHWU Luo X_ECRH Fixed effect model Random effects model Heterogeneity: <i>1</i> ² = 85%, τ ²	0.73 0.25	0.1593 0.0940		1.29 1.46	[1.52; 2.84] [1.07; 1.55] [1.24; 1.71] [1.00; 2.57]	6.5% 8.8%	
Fixed effect model Random effects model Heterogeneity: I ² - 77%, t ² Residual heterogeneity: I ²			1 2		[1.12; 1.23] [1.04; 1.45]		100.0%

Candidate variable: Low neutrophil count (Less than 1.8 x 10⁹/L), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE	seTE	Odds Ratio	OR	95	i%-CI	Weight (fixed)	Weight (random)
Sev = CRITICAL (Sever Li K_CMU Liu T_UH Shijiao Y_HHMU Hu L_TH Fixed effect model Random effects model Heterogenetty: /² = 0%, τ ²	-1.37 2.79 -0.38 -4.29	3.3419 3.1968 0.6600 3.1717 —	ARM)	16.32 0.69 0.01 0.64	[0.00; 1] [0.03; 850 [0.19; [0.00; [0.19; [0.19; [0.19;	85.32] 2.50] 6.84] 2.17]	0.2% 3.7%	0.4% 0.4% 7.0% 0.4%
Sev = PROGRESSION I Liu W_MC Fixed effect model Random effects model Heterogenelty: not applicat	-0.71			0.49 0.49 0.49	[0.06; [0.06; [0.06;	4.23]	1.3% 1.3% 	3.2%
Sev = SEVERE (> 30 br Qi D_multicentrico Chen X_FHC/LCH Wang Z_UH Zhang G_WXDPH Cao M_SPHCC MY_multicenter 43 hosp Chen W_YH YuC_TH LiX_TH Fixed effect model Random effects model Heterogenetly: I ² = 58%, t ²	0.23 (-0.10 (-1.60 (-1.43 (-3.02 (-0.51 (-2.20 (-0.22 (-1.18 (0.3253 0.4039 0.8121 0.5183 3.1808	90%)	1.26 0.90 0.24 0.05 0.60 0.11 0.81 0.63 0.56	[0.67; [0.41; [0.04; [0.09; [0.00; [0.21; [0.00; [0.23; [0.17; [0.49; [0.34;	1.99 0.99 0.66] 24.93 1.71] 59.87] 1.22] 0.55] 0.81]	9.8% 2.4% 6.0% 0.2% 5.6% 0.2% 35.6% 18.3%	14.6% 12.3% 5.2% 9.5% 0.4% 9.2% 18.2% 18.2% 85.2%
Sev = ARDS Zhao W_BYH Fixed effect model Random effects model Heterogenelty: not applicat	-2.09	1.0660	101	0.12	[0.02; [0.02; [0.02;	1.00]	1.4% 1.4% 	3.3%
Fixed effect model Random effects model Heterogeneity: $l^2 = 42\%$, τ^2 Residual heterogeneity: l^2			0.001 0.1 1 10 1000	0.61 0.54	[0.48; [0.35;		100.0%	100.0%

Candidate variable: Leukopenia (Less than 3.5-4 x 10⁹/L), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE	seTE	Odds Ratio	OR	95%-CI	-	Weight (random)
Sev = ICU			4				
Huang C_JYH	-1.79	1.1180		0.17	[0.02; 1.49]	0.4%	1.3%
	-1.51	0.7537		0.22	[0.05; 0.97]	1.0%	2.3%
Fixed effect model					[0.06; 0.69]	1.4%	
Random effects model			\sim	0.20	[0.06; 0.69]		3.6%
Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 0.8$	4						
Sev = CRITICAL (Severe ARDS S	hock o	r ARM)					
Li K_CMU		0.6953		1.65	[0.42; 6.45]		2.5%
	-1.21				[0.14; 0.63]		4.1%
	-1.07			0.34	[0.11; 1.04]	1.7%	3.1%
	-0.41	0.5187	- ()		[0.24; 1.83]		3.3%
Fixed effect model			4		[0.28; 0.76]		
Random effects model Heterogeneity: $I^2 = 45\%$, $\tau^2 = 0.2202$,	p = 0.14		•	0.51	[0.26; 1.02]		13.1%
Sev = PROGRESSION IN SEVERI	TYCA	FGORY					
Liu F XH		3.3255 -		0.03	[0.00; 21.38]	0.0%	0.2%
Liu W MC		0.7177			[0.16; 2.74]		2.4%
Wang X DFH		0.3038	4		[0.10, 2.74]		4.6%
Bi Q_STPH		0.2416			[1.64; 4.22]	9.5%	5.0%
Fixed effect model	0.01				[1.18; 2.42]		5.070
Random effects model			ų.		[0.57; 2.99]		12.3%
Heterogeneity: $I^2 = 67\%$, $\tau^2 = 0.3791$,	p = 0.03			1101	[0101] 2100]		121070
Sev = SEVERE (> 30 breathings (OR Sat	<90%)					
Jin-Jin Z_MC	-0.38	0.4512		0.68	[0.28; 1.65]	2.7%	3.7%
Qi D_multicentrico	0.89	0.3226	ी 	2.44	[1.30; 4.59]	5.3%	4.5%
Zhang G_ZHWU	-0.87	0.3733		0.42	[0.20; 0.87]	4.0%	4.2%
Zhen L_MC	-1.01	0.4789	-= <u>*</u>	0.36	[0.14; 0.93]	2.4%	3.6%
	-0.84			0.43	[0.08; 2.41]	0.7%	1.9%
	-3.82	3.2524 -		0.02	[0.00; 12.88]		0.2%
_	-0.00)	1.00	[0.53; 1.88]		4.5%
	0.28				[0.45; 3.90]		3.2%
	-1.80				[0.04; 0.67]		2.4%
Zhang G_WXDPH		0.5183			[0.09; 0.66]		3.3%
	-0.49				[0.13; 2.80]		2.2%
JX_WFPH		0.9431			[1.39; 55.87]		1.7%
MY_multicenter 43 hosp		0.4473			[0.30; 1.76]		3.8%
Colaneri M_PSM		0.6200			[0.36; 4.08]		2.8%
Xin L_CHWC/hospitales en Hunan			<u>.</u>		[0.40; 1.93]		4.0%
Chen W_YH		0.9535	} •		[0.67; 28.24]	0.6%	1.7%
YuC_TH		0.1735	-4		[0.65; 1.28]		5.4%
	-0.77		3		[0.13; 1.70]	1.3%	2.6%
	-0.59		3		[0.24; 1.31]	2.9%	3.8%
-	-0.75				[0.31; 0.71]		5.2% 1.2%
Li Y_TH Fixed effect model	-1.29	1.1099			[0.03; 2.83]	0.4% 70.8%	1.270
Random effects model			1		[0.62; 0.88]	10.070	66.0%
Heterogeneity: $I^2 = 60\%$, $\tau^2 = 0.2661$,	p < 0.01		Y I I	0.12	[0.52; 0.99]		00.076
Sev = ARDS							
Zhao W BYH	-0.88	0.5552		0.41	[0.14; 1.23]	1.8%	3.2%
Fixed effect model			4		[0.14; 1.23]		
Random effects model			4		[0.14; 1.23]		3.2%
Heterogeneity: not applicable			4		[,]		
Sev = IMV			4				
Liao Xuelian MC	-0.07	0.8423	<u>-ij</u>	0 93	[0.18; 4.86]	0.8%	2.0%
Fixed effect model	0.07	0.0420	3		[0.18; 4.86]	0.8%	2.0 /0
Random effects model			-		[0.18; 4.86]	0.0 %	2.0%
Heterogeneity: not applicable			3	0.30	[0.10, 4.00]		2.0 /0
notorogeneity. not applicable							
			1				
Fixed effect model					[0.69; 0.92]		
Fixed effect model Random effects model Heterogeneity: /² = 65%, τ² = 0.3642,					[0.69; 0.92] [0.53; 0.93]		 100.0%

Candidate variable: Low lymphocyte count (less than 0.8-1.5x 10⁹/L), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR		95%-CI	(fixed)	(randon
Sev = ICU							
Huang C_JYH	1.56 0.8570		4.77	[0.89;	25.57]	0.4%	0.99
Yang L_YCPH	1.19 0.5620	<u>l</u> ∔_	3.29	[1.09;	9.91]	1.0%	1.89
Lei S RHZHTHC	1.32 1.1782	<u>_</u> }	3.73	[0.37;	37.58	0.2%	0.59
Colombi D GdSH	0.83 0.2736	1.	2.30	[1.35;	3,931		4.19
		17					
Jun R_TH	0.99 0.4683	T.	2.68	[1.07;	6.71]		2.49
Rentsch_CT	0.97 0.2325	17	2.65	[1.68;	4.18]	5.6%	4.69
Fixed effect model		Q.	2.64	[1.95;	3.58]	12.6%	-
Random effects model Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 0.9$	6	n frank an ∲rn∳rn∳rne	2.64	[1.95;	3.58]		14.49
Sev = CRITICAL (Severe ARDS S Li K CMU	hock or ARM) 2.03 0.5712		7.60	[2.48;	23.28]	0.9%	1.89
		15-					
Wei-jie G_NHC	0.97 0.5276	÷	2.64	[0.94;	7.43]		2.0
Liu T_ UH	1.55 0.6755	- 1 -	4.71	[1.25;	17.72]	0.7%	1.49
Shijiao Y HHMU	1.15 0.3994	+	3.17	[1.45;	6.93]	1.9%	2.9
	2.27 0.7476	÷+	9.69	[2.24;	41.92	0.5%	1.29
Xu Y_GH	1.76 1.2696	Į.	5.83	0.48;	70.24]		0.5
		1:					
FY_JH, SPHCC, TPH	1.19 0.2829	17	3.30	[1.90;	5.75]		4.09
Zhou M_MC	1.29 0.2811	****	3.65	[2.10;	6.33]	3.8%	4.09
Fixed effect model		6	3.78	[2.80;	5.11	12.9%	-
Random effects model			3.78	[2.80;	5.11]		17.89
Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 0.7$	6		5.10	[2.00,	and		11.0
Sev = PROGRESSION IN SEVERI	TY CATEGORY						
Liu F XH	0.00 1.5811	!	1.00	10.05	22 171	0.1%	0.39
				[0.05;	22.17]		
Liu W_MC	0.47 0.6689	+ * }	1.60	[0.43;	5.94]	0.7%	1.49
Dong J_FMC	1.50 0.5053		4.50	[1.67;	12.11]	1.2%	2.19
BI QÎ STPH	0.88 0.2837	14	2.42	[1.39;	4.22		4.0
Fixed effect model		l à	2.57	[1.64;	4.03]		1.0
		1 X				3.0 70	7.04
Random effects model Heterogeneity: I ² = 0%, τ ² = 0, p = 0.5	5		2.57	[1.64;	4.03]		7.99
Sev = SEVERE (> 30 breathings (1	4.00	10.00	4 000	4 704	
Jin-Jin Z_MC	0.64 0.4250	1	1.90	[0.83;	4.38]		2.79
Xiao M_ECRH	1.24 0.2092	7	3.45	[2.29;	5.20]		4.99
Qi D multicentrico	0.69 0.5553	 *	1.99	0.67	5.91	1.0%	1.99
Zhang G ZHWU	1.11 0.4382	4	3.04	1.29;	7.18		2.6
	1.08 0.3778	<u>ئا</u>	2.95				3.19
Zhen L_MC		Ĩ		[1.40;	6.18]		
Jing L_WUH	1.58 0.7660	17	4.85	[1.08;	21.76]	0.5%	1.19
Chen G_TH	3.18 1.2528	<u></u> +	24.00	[2.06;	279.61]	0.2%	0.59
Chen X FHC/LCH	1.43 0.3304	i te	4.18	[2.19;	7.98]	2.8%	3.59
Tabata S SDFCH	1.46 0.5652	<u> </u>	4.30	[1.42;	13.02	0.9%	1.89
		1					
Wang Z_UH	2.05 0.7147	1	7.76	[1.91;	31.51]		1.39
Kuang Y_MC	1.06 0.4128	÷	2.89	[1.29;	6.50]	1.8%	2.89
Zhang G WXDPH	2.48 0.8191	}	11.93	[2.40;	59.44]	0.5%	1.09
Cao M_SPHCC	6.83 1.1839			[90.64; 9		0.2%	0.59
JX WFPH		t.				0.4%	0.99
	1.96 0.8766	÷	7.07	[1.27;	39.41]		
MY_multicenter 43 hosp	1.11 0.2694	7	3.05	[1.80;	5.16]	4.2%	4.19
Colaneri M_PSM	3.63 3.2106		37.86	[0.07; 20)468.87]	0.0%	0.1
Hongying S FAHWMU/SAHWMU			2.50	[0.19;	32.59		0.4
		1	5.93	[2.78;	12.64]		3.0
Xin L_CHWC/hospitales en Hunan		LE T					
Chen W_YH	6.68 3.2356	÷ • •	- 796.25 [0.0%	0.1
Fei J_UHHUST	1.27 0.3092	\$ -	3.57	[1.95;	6.54]	3.2%	3.7
ruC_TH	0.61 0.1040		1.84	[1.50;	2.26]	28.1%	6.0
Nan S TGCH	2.19 0.6555	T -	8.93	[2.47;	32.26	0.7%	1.5
Li H_TH	1.04 0.4054	L <u>i</u>	2.82	[1.27;	6.25]		2.8
		L					
Zheng F_NHCFH	0.99 0.4243	s≢ d d ≠	2.69	[1.17;	6.18]		2.7
LIX_TH	1.34 0.2685	17	3.81	[2.25;	6.45]		4.29
Li Y_TH	0.13 1.3024		1.14	[0.09;	14.68]	0.2%	0.49
Fixed effect model		l é	2.76	[2.42;	3.14]		
		1					E7 / /
Random effects model Heterogeneity: / ² = 63%, τ ² = 0.2376, j	0 < 0.01		3.79	[2.87;	5.01]		57.5
Sev = IMV	4 52 2 1002		02.04	0.10.44	125 441	0.09/	0.4
Xu Y_FAHG	4.53 3.1992	1:		[0.18; 4			0.19
Liao Xuelian_MC	0.50 1.1039	- <u>I+i-</u>	1.65	[0.19;	14.36]	0.2%	0.69
Fixed effect model		\Leftrightarrow	2.53	[0.33;	19.591	0.3%	-
Random effects model				[0.15;			0.79
-leterogeneity: $l^2 = 30\%$, $\tau^2 = 2.3984$, l	0 = 0.23	1	1.00	L 0110	100120]		
Sev = ARDS							
	4.05 0.5711		7.05	10.00		0.000	
Zhao W_BYH	1.95 0.5741	{*	7.05	[2.29;	21.72]		1.89
Fixed effect model			7.05	[2.29;	21.72	0.9%	_
Random effects model		6	7.05	[2.29;	21.72		1.89
Heterogeneity: not applicable		4.0.0	1.03	[2.2.5,	21112]		1.0
Fixed effect model			2.87	[2.59-	3 201	100.0%	
		15		[2.58;			-
Jan dam affects madel		•	3.47	[2.91;	4.14]		100.09
Random effects model Heterogeneity: / ² = 44%, τ ² = 0.1235, j							

Candidate variable: Low platelet count (less than 100-150 x 10⁹/L), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	95%-CI		Weight (random)
Sev = ICU Huang C_JYH Yang L_YCPH Colombi D_GdSH Jun R_TH Zhou H_UH Fixed effect model Random effects model Heterogeneity: $l^2 = 75\%$, $\tau^2 = 0.7309$	0.77 1.4566 0.36 0.4395 -1.06 0.3582 0.59 0.4642 1.07 0.4848		2.17 1.43 0.34 1.80 2.91 1.05 1.28		2.9% 4.4% 2.6% 2.4% 12.5%	0.7% 4.1% 5.0% 3.9% 3.7% 17.4%
Sev = PROGRESSION IN SEVER Liu W_MC Bi Q_STPH Fixed effect model Random effects model Heterogeneity: $l^2 = 0\%$, $\tau^2 = 0$, $p = 0$	0.82 0.8937 1.41 0.3129	, <u> </u>	2.26 4.09 3.83 3.83	[0.39; 13.03] [2.21; 7.54] [2.15; 6.83] [2.15; 6.83]	5. 7% 6.4%	1.6% 5.6% 7.1%
Sev = CRITICAL (Severe ARDS Wei-jie G_NHC Liu T_UH Shijiao Y_HHMU Hu L_TH Zhou M_MC Fixed effect model Random effects model Heterogeneity: $l^2 = 0\%$, $\tau^2 = 0$, $p = 0$	0.46 0.2733 3.58 3.1889 1.44 0.6642 1.15 0.6792 1.00 0.2819		1.58 35.75 4.23 3.14 2.71 2.25 2.25	[0.93; 2.70] [0.07; 18520.52] [1.15; 15.56] [0.83; 11.90] [1.56; 4.71] [1.58; 3.21] [1.58; 3.21]	0.1% 1.3% 1.2% 7.1% 17.1%	6.1% 0.1% 2.5% 2.4% 6.0% 17.0%
Sev = SEVERE (> 30 breathings Xiao M_ECRH Qi D_multicentrico Zhen L_MC Jing L_WUH Chen G_TH Chen X_FHC/LCH Tabata S_SDFCH Zhang G_WXDPH Cao M_SPHCC JX_WFPH Colaneri M_PSM Hongying S_FAHWMU/SAHWMU Chen W_YH YuC_TH Wan S_TGCH Li H_TH Zheng F_NHCFH LiX_TH Fixed effect model Random effects model	1.08 0.3129 0.94 0.3382 0.80 0.3655 0.37 0.9828 -2.40 3.3634 0.47 0.3214 -0.11 0.8482 0.56 0.6490 0.88 0.5349 1.88 1.4712 0.05 1.2046 4.89 3.2236 4.29 3.3543 0.19 0.1851 1.23 0.5499 -0.41 0.5116 0.54 0.7096 0.43 0.1910		1.05 - 132.73		4.9% 4.2% 0.6% 0.0% 5.4% 0.8% 1.3% 0.4% 0.3% 0.4% 0.1% 0.1% 0.1% 1.9% 2.1% 1.1% 15.4% 62.5%	5.6% 5.2% 4.9% 1.3% 0.1% 5.5% 1.7% 2.5% 0.6% 0.9% 0.1% 7.2% 3.2% 3.2% 3.5% 2.2% 5.3%
Heterogeneity: $l^2 = 13\%$, $r^2 = 0.0269$ Sev = ARDS Zhao W_BYH Fixed effect model Random effects model Heterogeneity: not applicable	, <i>p</i> = 0.30 1.58 0.9541		4.85 4.85 4.85	[0.75; 31.49] [0.75; 31.49] [0.75; 31.49]	0.6%	1.4%
Sev = IMV Liao Xuelian_MC Fixed effect model Random effects model Heterogeneity: not applicable	2.12 0.8302	400	8.35 8.35 8.35	[1.64; 42.49] [1.64; 42.49] [1.64; 42.49]	0.8%	1.8% 1.8%
Fixed effect model Random effects model Heterogeneity: $l^2 = 48\%$, $\tau^2 = 0.1751$ Residual heterogeneity: $l^2 = 35\%$, p	, p < 0.01 = 0.04	0.001 0.1 1 10 1000	1.78 1.93	[1.54; 2.06] [1.52; 2.46]	100.0% 	 100.0%

Candidate variable: High plasma creatinine (more than 1.5 mg%), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	95%-0	Weight CI (fixed)	
Sev = ICU						
Huang C_JYH	0.86 1.0627		2.36	[0.29; 18.9		1.9%
Yang L_YCPH	1.02 0.4113	+	2.78	[1.24; 6.2		7.6%
Jun R_TH	0.74 0.4299	1 1	2.09	[0.90; 4.8		7.3%
Fixed effect model		\$	2.42	[1.38; 4.24	4] 13.2%	
Random effects model Heterogeneity: $l^2 = 0\%$, $\tau^2 = 0$, $p = 0.8$	19		2.42	[1.38; 4.2	4]	16.9%
Sev = PROGRESSION IN SEVER	TY CATEGORY					
Liu W MC	-0.34 1.0621		0.71	[0.09; 5.6	9] 1.0%	1.9%
Bi Q_STPH	5.97 3.1805	+÷+	- 390.04	[0.77; 198780.3	1 0.1%	0.2%
Fixed effect model			1.34	[0.19; 9.6]		
Random effects model		2	8.16	[0.02; 3368.7	21	2.2%
Heterogeneity: $I^2 = 72\%$, $\tau^2 = 14.2782$, <i>p</i> = 0.06			[,		
Sev = CRITICAL (Severe ARDS S						
Wei-jie G_NHC	2.35 0.6046	(10.53	[3.22; 34.4		4.8%
Liu T_ UH	0.48 3.3324			[0.00; 1110.3		0.2%
Shijiao Y_HHMU	4.88 3.2103	-+ ;	132.00	[0.24; 71312.1		0.2%
Zhou M_MC	1.13 0.2746		3.10	[1.81; 5.3	1] 14.3%	10.7%
Fixed effect model		4	3.88	[2.39; 6.3]	2] 17.5%	
Random effects model		à ()	5.15	[1.93; 13.7	8]	15.9%
Heterogeneity: $I^2 = 36\%$, $\tau^2 = 0.3444$,	p = 0.20	t.				
Sev = SEVERE (> 30 breathings (
Xiao M_ECRH	1.83 0.3448	[=	6.24	[3.17; 12.2		9.09
Qi D_multicentrico	2.62 1.1658		13.79	[1.40; 135.4		1.7%
Shi W_ SPHCC	0.67 0.5388	11	1.96	[0.68; 5.6		5.6%
Zhen L_MC	1.46 0.4973		4.32	[1.63; 11.4		6.2%
Chen X_FHC/LCH	0.76 0.7083	11	2.13	[0.53; 8.5		3.8%
Zhang G_WXDPH	0.15 0.5084	+:	1.17	[0.43; 3.1		6.0%
Cao M_SPHCC	1.48 0.7381	- <u>+-</u> -	4.39	[1.03; 18.6		3.6%
JX_WFPH	4.10 3.3578			[0.08; 43592.1		0.29
Hongying S_FAHWMU/SAHWMU			1.83	[0.32; 10.5		2.69
YuC_TH	0.85 0.3204	÷	2.33	[1.25; 4.3]	7] 10.5%	9.69
Yang J_WUH	2.63 2.2726	<u>+</u> ;	13.87	[0.16; 1192.6	4] 0.2%	0.59
Zheng F_NHCFH	1.50 1.4290		4.48	[0.27; 73.7		1.19
LiX_TH	0.49 0.1960	+	1.63	[1.11; 2.4	0] 28.1%	12.79
Fixed effect model		4	2.38	[1.85; 3.0	5] 67.1%	
Random effects model		6	2.72	[1.83; 4.04	4]	62.6%
Heterogeneity: $I^2 = 40\%$, $\tau^2 = 0.1647$,	p = 0.07					
Sev = ARDS	4 02 2 25 40			10.00.05.0	0.40	0.00
	-1.93 3.2549		0.14	[0.00; 85.3		0.2%
Fixed effect model			0.14	[0.00; 85.3		0.00
Random effects model Heterogeneity: not applicable			0.14	[0.00; 85.3	3]	0.2%
Sev = IMV						
Liao Xuelian MC	2.69 0.9953	<u>+</u>	14.79	[2.10; 104.0	0] 1.1%	2.2%
Fixed effect model		\diamond	14.79	[2.10; 104.0		
Random effects model		\diamond	14.79	[2.10; 104.0	-	2.2%
Heterogeneity: not applicable				[-1	
Fixed effect model		6	2.62	[2.14; 3.2	2] 100.0%	
Random effects model		*	2.95	[2.16; 4.0	3]	100.0%
		r	2.95	[2.16; 4.0	3]	100.0%

Candidate variable: High LDH (more than 240-250 U/L), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	95%-CI	Weight (fixed)	
Sev = ICU						
Huang C JYH	1.95 1.1145	<u> </u>	7.06	[0.79; 62.72]	0.4%	1.7
Yang ĽÝCPH	2.23 0.5232		9.31	3.34; 25.95]	1.9%	4.0
Colombi D GdSH	1.10 0.3494	<u>.</u>	3.00	[1.51; 5.95]	4.2%	5.1
Fixed effect model	1.10 0.0404	L L	4.39	[2.53; 7.62]	6.4%	0.1
Random effects model				[2.18; 11.56]	0.4 /0	10.9
Heterogeneity: $I^2 = 42\%$, $\tau^2 = 0.2295$	<i>p</i> = 0.18	+ • •	5.01	[2.10; 11.30]		10.9
Sev = CRITICAL (Severe ARDS	shock or ARM)					
Wei-jie G NHC	1.32 0.3404	<u>L.</u>	3.73	[1.92; 7.27]	4.4%	5.2
Duan Q WPH	1.00 0.4156		2.71	[1.20; 6.12]	2.9%	4.7
Liu T_ UH	2.93 1.0788			[2.26; 155.34]	0.4%	1.8
Hu L_TH	1.77 0.8641		5.88	[1.08; 32.01]	0.7%	2.4
Zhou M_MC	1.19 0.4710		3.29	[1.31; 8.28]	2.3%	4.4
Fixed effect model			3.66	[2.39; 5.60]	10.7%	-
Random effects model			3.66	[2.39; 5.60]		18.5
Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 0$.	53					
Sev = SEVERE (> 30 breathings						
Qi D_multicentrico	0.94 0.3436	1 .*	2.57	[1.31; 5.03]	4.3%	5.2
Zhen L_MC	1.46 0.5089	-!+-	4.30	[1.59; 11.66]	2.0%	4.1
Chen X_FHC/LCH	2.32 0.3669		10.20	[4.97; 20.94]	3.8%	5.0
Tabata S SDFCH	0.66 0.4810	+= <u>+</u> :	1.93	[0.75; 4.95]	2.2%	4.3
Wang Z UH	2.43 0.8343			[2.21; 58.15]	0.7%	2.5
Huang H GEPH	5.39 1.2399			[19.33; 2494.65]	0.3%	1.5
Kuang Y MC	2.11 0.5116			[3.04; 22.59]	1.9%	4.1
CaiQ_TPHS	2.67 0.5046		14.51	[5.40; 39.02]	2.0%	4.2
					6.2%	4.2
MY_multicenter 43 hosp	0.66 0.2867		1.94	[1.11; 3.41]		
Hongying S_FAHWMU/SAHWMU		L		[2.56; 178.19]	0.4%	1.8
YuC_TH	0.35 0.1252	+	1.42	[1.11; 1.81]		6.3
Zhang R_RH	0.92 0.5809	- 1 1 -	2.50	[0.80; 7.81]	1.5%	3.7
Zheng F_NHCFH	1.55 0.4314	11	4.70	[2.02; 10.94]	2.7%	4.6
LiX_TH	1.62 0.2277	H	5.06	[3.24; 7.91]	9.8%	5.9
Li Y_TH	0.69 0.8660		2.00	[0.37; 10.92]	0.7%	2.4
Fixed effect model		•	2.64	[2.23; 3.11]	70.9%	-
Random effects model			4.75	[2.87; 7.84]		61.1
Heterogeneity: $I^2 = 84\%$, $\tau^2 = 0.6911$	<i>p</i> < 0.01					
Sev = IMV						
Xu Y_FAHG	1.49 0.7446	<u> ++</u>		[1.03; 19.16]		2.9
Fixed effect model			4.45	[1.03; 19.16]	0.9%	-
Random effects model		\sim	4.45	[1.03; 19.16]		2.9
Heterogeneity: not applicable						
Sev = PROGRESSION IN SEVER						
Dong J_FMC	3.38 1.8722	+ +	29.35	[0.75; 1151.35]	0.1%	0.7
Zhang L_WUH	1.12 0.2155	÷.	3.05	[2.00; 4.65]	10.9%	5.9
Fixed effect model				[2.06; 4.78]		-
Random effects model				[0.86; 22.68]		6.7
Heterogeneity: $I^2 = 31\%$, $\tau^2 = 0.7877$	p = 0.23			L, ARIOU		0.11
Fixed effect model		•	2.89	[2.51; 3.32]	100.0%	
Random effects model		\$	4.48	[3.21; 6.25]		100.0
Heterogeneity: $l^2 = 75\%$, $\tau^2 = 0.4420$	p < 0.01					

Candidate variable: LDH increase (per 1 U/L), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE	seTE	Odds Ratio	OR	95%-CI		Weight (random)
Sev = ARDS Wu C_WJH Yu T_DPHNH Fixed effect model Random effects mod Heterogeneity: 1 ² = 62%,	0.01 el	0.0006 0.0038 0001, p =	0.11	1.01 1.00	[1.00; 1.01] [1.00; 1.02] [1.00; 1.01] [1.00; 1.01]	1.8%	26.0% 12.3%
Sev = ICU Chen J_SP Fixed effect model Random effects mod Heterogeneity: not applic	el	0.0051		1.01	[1.00; 1.02] [1.00; 1.02] [1.00; 1.02]		8.6%
Sev = CRITICAL (Sev Mo P_ZH Fan T_RHWU Fixed effect model Random effects mod Heterogeneity: l^2 = 0%, s	0.00 0.00	0.0026 0.0052	c or ARM)	1.00 1.00	[0.99; 1.01] [0.99; 1.01] [1.00; 1.00] [1.00; 1.00]	1.0%	17.3% 8.4%
Sev = SEVERE (> 30 Han Y_ RHWU Jiancheng L_JH Fixed effect model Random effects mod Heterogenethy: <i>1</i> ² - 82%,	0.02 0.01 el	0.0050 0.0023	+	1.01 1.01	[1.01; 1.03] [1.00; 1.01] [1.01; 1.01] [1.00; 1.03]	5.1% 6.1%	8.7% 18.7% 27.4%
Fixed effect model Random effects mod Heterogeneity: / ² - 66%, Residual heterogeneity:	el , τ ² < 0.00	001, p < 0	•		[1.00; 1.01] [1.00; 1.01]	100.0%	 100.0%

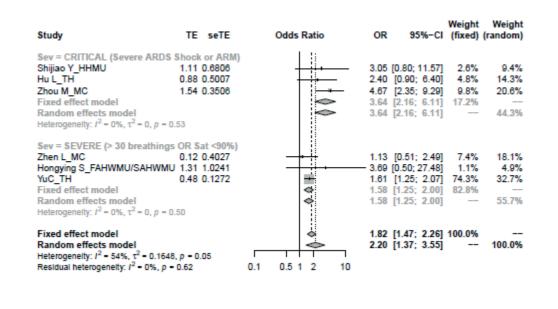
Candidate variable: CK-MB increase (per 1 U/L), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE	seTE	Odds Ratio	OR	95%-CI	Weight (fixed)	Weight (random)
Sev = ARDS Wu C_WJH Fixed effect model Random effects model Heterogeneity: not applicat		0.4524		1.82	[0.75; 4.42] [0.75; 4.42] [0.75; 4.42]	10.2%	28.1%
Sev = SEVERE (> 30 br Han Y_RHWU Fixed effect model Random effects model Heterogeneity: not applicat	1.28 (gs OR Sat <90 0.5052		3.60	[1.34; 9.69] [1.34; 9.69] [1.34; 9.69]	8.2%	25.2%
Sev = IMV Liu R_CHW Fixed effect model Random effects model Heterogeneity: not applicat		0.1604		1.10	[0.80; 1.51] [0.80; 1.51] [0.80; 1.51]	81.5%	46.7%
Fixed effect model Random effects model Heterogeneity: I ² = 65%, t ² Residual heterogeneity: I ²			0.5 1 2 5		[0.96; 1.70] [0.85; 3.42]		 100.0%

Candidate variable: High D-dimer (more than 500-1000 ng/ml), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	95%-CI	Weight (fixed)	
Sev = CRITICAL (Severe ARDS	Shock or ARM)	1.8				
Gao Y FSH	2.50 0.9990		- 12.13	[1.71; 85.95]	0.5%	1.7
Duan Q WPH	0.70 0.3865	⊢ ∎ <u>i</u> ÷	2.02	[0.95; 4.31]	3.2%	5.1
Shijiao Y HHMU	1.10 0.6726		3.00	[0.80; 11.21]	1.0%	3.0
Hu L_TH	0.89 0.4571			[0.99; 5.95]		4.5
Zhou M MC	1.96 0.5108			[2.61; 19.32]	1.8%	4.0
Fixed effect model	1.55 0.5100			[2.01; 5.00]	8.7%	4.0
Random effects model				[1.89; 6.10]	0.1 /0	18.3
Heterogeneity: $I^2 = 33\%$, $\tau^2 = 0.1454$, <i>p</i> = 0.20		3.40	[1.05; 0.10]		10.5
Sev = PROGRESSION IN SEVE						
Liu W_MC	0.59 0.8191		1.80	[0.36; 8.96]	0.7%	2.3
Dong J FMC	0.00 0.3969			[0.46; 2.18]	3.0%	5.0
Bi Q STPH	1.36 0.3384			[2.01; 7.57]	4.1%	5.6
Fixed effect model		~		[1.33; 3.50]	7.8%	-
Random effects model				[0.73; 5.31]		12.9
Heterogeneity: $I^2 = 71\%$, $\tau^2 = 0.5174$, <i>p</i> = 0.03		1.57	[0.75, 5.51]		12.5
Sev = SEVERE (> 30 breathings	OR Sat <90%)					
Jin-Jin Z MC	1.05 0.3225		2.86	[1.52; 5.38]	4.5%	5.8
Xiao M ECRH	1.68 0.3269	- C _		[2.82; 10.15]	4.4%	5.7
Qi D_multicentrico	2.51 0.5247			[4.42; 34.56]	1.7%	3.9
Zhen L_MC	0.51 0.3245	1-1		[0.88; 3.14]	4.5%	5.8
Chen X_FHC/LCH	0.44 0.4671			[0.62; 3.87]	2.2%	4.4
Zhang G_WXDPH	1.11 0.5202			[1.10; 8.44]		4.0
CaiQ_TPHS	1.67 0.3183			[2.86; 9.96]	4.6%	5.8
Cao M_SPHCC	1.39 0.5036	- ; ; •	4.02	[1.50; 10.79]	1.9%	4.1
Wang Y_CHW	2.84 0.9708	<u> </u>	- 17.05	[2.54; 114.31]	0.5%	1.8
JX WFPH	1.82 0.8126	_ 	6.17	[1.25; 30.32]	0.7%	2.3
Hongying S FAHWMU/SAHWMU	1.51 0.5051		4.54	[1.69; 12.22]	1.8%	4.1
YuC TH	0.46 0.1091		1.58	[1.28; 1.96]	39.6%	7.7
Lix TH	1.23 0.1882			[2.37; 4.96]		7.1
LIYTH	0.73 0.8465			[0.40; 10.95]	0.7%	2.2
Fixed effect model	0.10 0.0100	\$		[2.08; 2.80]		
Random effects model				[2.38; 5.00]		64.7
Heterogeneity: $l^2 = 75\%$, $\tau^2 = 0.3012$, <i>p</i> < 0.01		3.43	[2.30, 3.00]		04.1
Sev = ICU						
Yang L_YCPH	1.80 0.6314		6.03	[1.75; 20.78]	1.2%	3.2
Fixed effect model				[1.75; 20.78]		-
Random effects model			6.03	[1.75; 20.78]		3.2
Heterogeneity: not applicable				[]		
Sev = OTHER						
Ying S hospitales en Beijing	1.67 1.4254		- 5.31	[0.33; 86.83]	0.2%	0.9
Fixed effect model				[0.33; 86.83]	0.2%	
Random effects model		i:		[0.33; 86.83]		0.9
Heterogeneity: not applicable			0101	[010
Fixed effect model		•	2.48	[2.17; 2.84]	100.0%	-
Random effects model		\		[2.47; 4.36]		100.0
Heterogeneity: $l^2 = 66\%$, $\tau^2 = 0.2602$	<i>p</i> < 0.01		7	[

Candidate variable: Prolonged PT (more than 13.2-15 seconds), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition



Candidate variable: Prolonged APTT (more than 35-45 seconds), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	95%-CI	Weight (fixed)	Weight (random)
Sev = CRITICAL (Severe ARI	Shock or ARM)					
Shijiao Y_HHMU	1.04 0.7476	- <u> </u> +	- 2.83	[0.65; 12.23]	1.8%	9.5%
Zhou M_MC	0.98 0.3007	1	2.67	[1.48; 4.81]	11.1%	19.7%
Fixed effect model		\diamond	2.69	[1.56; 4.65]	12.8%	
Random effects model		\sim	2.69	[1.56; 4.65]		29.2%
Heterogenelty: $I^2 = 0\%$, $\tau^2 = 0$, p Sev = SEVERE (> 30 breathin Zhen L_MC Cao M_SPHCC Hongying S_FAHWMU/SAHW YuC_TH Fixed effect model Random effects model Heterogenelty: $I^2 = 71\%$, $\tau^2 = 0.2$	ngs OR Sat <90%) -0.57 0.3347 1.38 0.5096 MU -0.23 0.5156 -0.02 0.1189		- 3.96 0.80 0.98 0.98	[0.29; 1.09] [1.46; 10.75] [0.29; 2.19] [0.78; 1.24] [0.79; 1.21] [0.58; 1.96]	3.8% 3.8%	18.7% 14.2% 14.1% 23.8%
Fixed effect model Random effects model Heterogeneity: $l^2 = 77\%$, $\tau^2 = 0.3$ Residual heterogeneity: $l^2 = 61\%$	517, p < 0.01	0.5 1 2		[0.92; 1.36] [0.79; 2.52]		100.0%

Candidate variable: APTT time increase (per 1 second), outcome: severe COVID-19 disease

Study	TE	seTE	Odds Ratio	OR	95%-CI	Weight (fixed)	Weight (random)
Sev = ARDS Wu C_WJH Fixed effect model Random effects model Heterogenelty: not applicat		0.0238	44	0.96	[0.92; 1.01] [0.92; 1.01] [0.92; 1.01]	97.1%	56.5% 56.5%
Sev = SEVERE (> 30 br Han Y_RHWU Fixed effect model Random effects model Heterogenelty: not applicat	0.34	gs OR Sal 0.1383		- 1.40	[1.07; 1.84] [1.07; 1.84] [1.07; 1.84]	2.9%	43.5%
Fixed effect model Random effects model Heterogeneity: 1 ² - 86%, t ² Residual heterogeneity: 1 ²			0.75 1 1.5		[0.93; 1.02] [0.78; 1.63]		100.0%

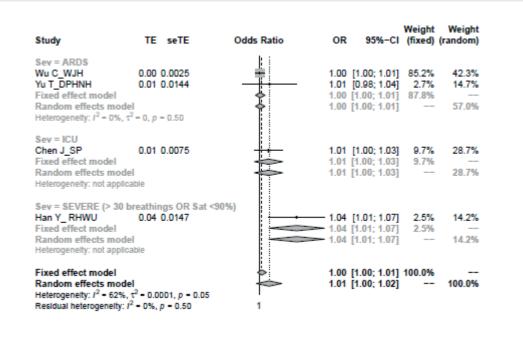
Candidate variable: High procalcitonin (More than 0.01-05 ng/ml), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	Weight 95%-CI (fixed)	
Sev = ICU					
Huang C_JYH	4.47 3.2392		— 87.00 [0.15		
Wang D_ZH	2.39 0.4540			48; 26.56] 3.0%	4.9%
Yang L_YCPH	3.60 0.5904		36.69 [11.5	4; 116.70] 1.8%	4.4%
Lei Š_RHZHTHC	1.93 0.8018	<u></u>	6.86 [1.4	42; 33.01] 1.0%	3.7%
Jun R TH	1.87 0.5670		6.52 2.1		4.5%
Fixed effect model	1.01 0.3010	•		98; 21.17] 7.7%	
Random effects model Heterogeneity: $l^2 = 29\%$, $\tau^2 = 0$.	1835, <i>p</i> = 0.23		12.24 [6.0	JO; Z4.78]	18.1%
Sev = CRITICAL (Severe AR	DS Shock or ARM)				
Lik CMU	2.08 0.6080		7.99 [2.4	43; 26.30] 1.7%	4.4%
Wei-jie G_NHC	2.04 0.3936		7.69 [3.9		
Shijiao Y_HHMU	0.42 0.5275	- 1 ++		.54; 4.28] 2.2%	
Hu L_TH	0.24 0.3543	· · · · ·	1.27 [0.	.63; 2.54] 4.9%	5.3%
Zhou M MC	2.11 0.3473		8.28 [4.1	19; 16.36] 5.1%	5.3%
Fixed effect model		0	3.93 [2.	73: 5.661 17.9%	
Random effects model			L .	63; 9.56]	24.7%
Heterogeneity: $l^2 = 82\%$, $\tau^2 = 0$.	8191, <i>p</i> < 0.01	* *	5.54 [1.	00, 0.00]	2-4.1 70
Sev = PROGRESSION IN SE	VERITY CATEGORY				
Liu W MC	-1.75 1.3466		0.17 [0.	01; 2.44] 0.3%	2.2%
Bi Q_STPH	3.03 0.6449			87; 73.51 1.5%	4.2%
Fixed effect model	0.00 0.0110	\diamond		72; 26.61] 1.8%	
Random effects model			2.20 [0.0	2; 236.55]	6.4%
Heterogeneity: $I^2 = 90\%$, $\tau^2 = 10\%$	0.3200, p < 0.01				
Sev = SEVERE (> 30 breath	ings OR Sat <90%) 1.18 0.4022		3.25 [1.	48: 7.15] 3.8%	5.1%
Jin-Jin Z_MC					
Xiao M_ECRH	3.56 1.0203		35.22 [4.7		
Qi D_multicentrico	2.09 0.4517		8.05 [3.3		
Zhang G_ZHWU	2.45 0.3624			71; 23.63] 4.7%	
Chen G TH	3.50 3.2577		— 33.14 [0.06	; 19647.54] 0.1%	0.5%
Wang G PHTCC	0.81 0.3686		2.24 [1.	09; 4.62] 4.5%	5.2%
Wang Z_UH	-2.32 3.2189 -			00; 54.00] 0.1%	
Cao M SPHCC	-0.11 0.5472			31; 2.61] 2.1%	
FL_GHCTCPLA	2.18 1.0351			17; 67.38] 0.6%	
MY_multicenter 43 hosp	-0.13 0.5415	-11		.30; 2.54] 2.1%	
Hongying S_FAHWMU/SAHV	/MU -1.19 3.2436		0.31 [0.0	0; 175.95] 0.1%	0.5%
Chen W_YH	3.47 1.2311		32.00 [2.8	7; 357.31] 0.4%	2.4%
YuC_TH	0.45 0.1124	+	1.57 [1.	26; 1.96] 48.8%	5.8%
LIX TH	2.90 0.6048			55; 59.47 1.7%	
Fixed effect model	2.00 0.0010	0		84; 2.64] 72.5%	
			L	·	
Random effects model Heterogeneity: / ² = 82%, τ ² = 0.	9602, p < 0.01	\$	4.29 [2.	20; 8.36]	49.8%
Sev = ARDS					
Liu Y_ CHW	1.19 3.2566		3.28 [0.0	1; 1942.54] 0.1%	0.5%
Zhao W BYH	3.30 3.3438		- 27.00 [0.04		
	3.30 3.3430				
Fixed effect model				9; 886.35] 0.1%	
Random effects model Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, μ	0 = 0.65		9.16 [0.0	9; 886.35]	1.0%
Fixed effect model			2.86 [2.	45; 3.33] 100.0%	
		1			
Random effects model			5.14 [3.	16; 8.35]	100.0%
Heterogeneity: $I^2 = 82\%$, $\tau^2 = 1$.	0378. p < 0.01				
Residual heterogeneity: /2 = 799		.001 0.1 1 10 1000			

Candidate variable: High ALT level (more than 35-50 U/L), outcome: severe COVID-19 disease. subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	95%-CI	Weight (fixed)	
Sev = ARDS		L d				
Wu C WJH	1.05 0.3381	<u>+</u>	2.87	[1.48; 5.57]	3.5%	4.49
Fixed effect model	1.00 0.0001			[1.48; 5.57]	3.5%	4.47
		1			3.3%	4 40
Random effects model		~	2.87	[1.48; 5.57]		4.4%
Heterogeneity: not applicable						
Sev = PROGRESSION IN SEVER	TY CATEGORY					
Liu W MC	0.03 0.5688		1.03	[0.34; 3.15]	1.2%	3.09
Zhang L WUH	0.40 0.1911		1.50	[1.03; 2.18]	10.9%	5.49
Bi Q STPH	1.61 0.2589			[3.02; 8.33]	5.9%	5.09
	1.01 0.2505					5.07
Fixed effect model		2		[1.62; 2.90]	18.1%	
Random effects model			2.10	[0.81; 5.46]		13.4%
Heterogeneity: $I^2 = 87\%$, $\tau^2 = 0.5874$,	p < 0.01					
Sev = CRITICAL (Severe ARDS S	hock or ARM)					
Wei-jie G_NHC	1.02 0.3058		2 77	[1.52; 5.04]	4.3%	4.79
Liu T_ UH	1.80 1.0778			[0.73; 50.00]	0.3%	1.39
Shijiao Y_HHMU	0.81 0.7072			[0.56; 9.01]	0.8%	2.49
Hu L_TH	0.73 0.3303	<u> </u>	2.08	[1.09; 3.98]	3.6%	4.59
FY_JH, SPHCC, TPH	1.75 0.2802		5.75	[3.32; 9.95]	5.1%	4.89
Zhou M MC	0.69 0.2744	<u>-</u>		[1.17; 3.42]	5.3%	4.99
Fixed effect model		6		[2.21; 3.87]	19.4%	
Random effects model				[1.91; 4.42]	10.470	22.6%
Heterogeneity: $I^2 = 47\%$, $\tau^2 = 0.1171$,	p = 0.09		2.31	[1.31, 4.42]		22.07
notorogonoly. 1176, 4 0.1111,	p 0.00					
Sev = SEVERE (> 30 breathings (5.47		4 704	0.50
Qi D_multicentrico	1.64 0.4794	1		[2.02; 13.24]	1.7%	3.59
Zhen L_MC	0.41 0.3537			[0.75; 3.01]	3.2%	4.39
Chen X_FHC/LCH	1.02 0.4237	- *	2.76	[1.20; 6.34]	2.2%	3.99
Tabata S SDFCH	1.58 0.5890		4.84	[1.52; 15.34]	1.1%	2.99
Wang Z UH	0.52 0.6138			[0.50; 5.58]	1.1%	2.89
Zhang G WXDPH	1.32 0.4806			[1.46; 9.62]	1.7%	3.59
CaiQ TPHS	1.81 0.3653			[2.99; 12.53]	3.0%	4.39
Cao M_SPHCC	0.50 0.6765			[0.44; 6.20]	0.9%	2.59
JX_WFPH	0.67 0.8075			[0.40; 9.56]	0.6%	2.09
MY multicenter 43 hosp	0.02 0.3118		1.02	[0.55; 1.88]	4.1%	4.69
Hongying S FAHWMU/SAHWMU	2.30 1.0372	 	- 10.00	[1.31; 76.36]	0.4%	1.49
	-0.01 0.1303	<u>唐</u> 月		[0.77; 1.28]	23.4%	5.79
Zheng F NHCFH	1.12 0.6108	<u></u>		[0.93; 10.18]	1.1%	2.89
	0.11 0.2041	上目			9.6%	5.39
LIX_TH	0.11 0.2041	青月		[0.75; 1.66]		5.37
Fixed effect model		•		[1.23; 1.72]	54.0%	
Random effects model		\	2.23	[1.50; 3.33]		49.5%
Heterogeneity: $I^2 = 74\%$, $\tau^2 = 0.3534$,	p < 0.01					
Sev = IMV						
Xu Y FAHG	1.79 0.6770	 	6.00	[1.59; 22.62]	0.9%	2.59
Fixed effect model				[1.59; 22.62]	0.9%	
Random effects model		1		[1.59; 22.62]	0.570	2.5%
			0.00	[1.33, 22.02]		2.57
Heterogeneity: not applicable						
Sev = ICU						
Yang L_YCPH	1.12 0.4250		3.07	[1.33; 7.05]	2.2%	3.99
Jun R_TH	0.46 0.4438	- 		0.66; 3.77	2.0%	3.79
Fixed effect model		4		[1.22; 4.08]	4.2%	0.77
		Ť.			~r.ℤ /0	7.6%
Random effects model Heterogeneity: $l^2 = 14\%$, $\tau^2 = 0.0303$,	p = 0.28	<u> </u>	2.23	[1.17; 4.26]		1.69
Fixed effect model Random effects model		•		[1.67; 2.14] [1.85; 3.21]		100.00
Heterogeneity: $I^2 = 74\%$, $\tau^2 = 0.3266$,			2.44	[1.05, 5.21]		100.0%

Candidate variable: ALT increase (per 1 U/L). outcome: severe COVID-19 disease. subgroup analysis by COVID-19 severity definition



Candidate variable: High lactate (more than 1.5-2.2 mmol/L), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	95%-CI	Weight (fixed)	Weight (random)
Sev = SEVERE (> 3 Chen X_FHC/LCH Cao M_SPHCC Fixed effect model Random effects mo Helerogeneity: I ² = 0%	0.04 0.6622	t <90%)	2.03 1.04 1.75 1.75	[0.29; 3.82]		36.9% 31.9% 68.7%
Sev = CRITICAL (Se Hu L_TH Fixed effect model Random effects mo Heterogeneity: not app			28.06	[7.21; 109.24] [7.21; 109.24] [7.21; 109.24]	16.7%	31.3% 31.3%
Fixed effect model Random effects mo Heterogeneity: 1 ² = 86 ⁰ Residual heterogeneity	%, τ ² = 1.8828, p < 0.0			[1.60; 4.86] [0.69; 20.16]	100.0%	100.0%

Candidate variable: Ground glass opacity. outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Chen Y _ multicentrico - FCMCH 3.31 0.9439 27.50 [$\frac{4}{32}$; 174.88] 3.1% 6 Chu J TH 2.11 3.2325 8.25 [0.01 ; 4655.18] 0.3% 1 Duan Q WPH 0.44 0.4480 1.56 [0.65 ; 3.74 [13.8% 10 Shijao Y HHMU -0.30 0.6740 0.74 [0.20 ; 2.78] 6.1% 9 Zhou M MC 0.21 0.4367 1.23 [0.52 ; 2.89] 14.5% 11 Fixed effect model 1.18 [0.81 ; 1.72 [74.7% Random effects model 1.56 [0.73 ; 3.34] -51 Heterogeneity: $l^2 = 64\%$, $\tau^2 = 0.4819$, $p = 0.02$ Sev = ARDS 41.58 [0.08 ; 21504.46] 0.3% 1 Liw Y CHW 3.73 3.1880 41.58 [0.08 ; 21504.46] 0.3% 1 -540 [1.15 ; 25.34] 4.4% 8 Sev = ARDS 41.58 [0.08 ; 21504.46] 0.3% 1 -540 [1.15 ; 25.34] 4.4% 8 Staofei H MC 1.76 1.0429 5.79 [0.75 ; 44.67] 2.5% 6 6 Colaneri M PSM 1.01 0.7507 2.75 [0.83 ; 11.96] 4.9% 8 30.68 [3.76 ; 248.68] 2.4% 6 Sev = SEVERE (> 30 breathings OR Sat <90%) 4.48 [0.27 ; 7.37.8] 1.4% 4 6 Mark YCH 1.60 1.4290 5.79 [0.75 ; 44.67] 2.5% 6 6 Chew YH 3.42 1.0676	Wei-jie G_NHC -0.16 0.2735 0.85 [0.50; 1.45] 37.0% 12 Chen Y_multicentrico-FCMCH 3.31 0.9439 -27.50 [4.32; 174.88] 3.1% 6 Duan Q_WPH 0.44 0.4480 8.25 [0.01; 465: 18] 3.4% 1 Shijiao Y_HHMU -0.30 0.6740 0.74 [0.20; 2.78] 6.1% 1 Shijiao Y_HMC 0.21 0.4367 1.23 [0.52; 1.28] 14.5% 11 Staigo Y_HMC 0.21 0.4367 1.23 [0.52; 2.28] 14.5% 1 Random effects model 1.18 [0.81; 1.72] 74.7% 1 1.56 0.3% 1 Random effects model 1.56 [0.08; 21504.46] 0.3% 1 1.56 0.3% 1 Random effects model 41.58 [0.08; 21504.46] 0.3% 1 1 1.56 0.3% 1 Sev = SEVERE (> 30 breathings OR Sat <90%) Ma K_YCH 1.69 0.7507 2.755 1.86 0.287; 357.31] 1.8% 6 Colaner if M C 1.50 1.4290 -771 12.36; 25.24] 7.6% 6 <td< th=""><th>Study</th><th>TE</th><th>seTE</th><th>Odds Ratio</th><th>OR</th><th></th><th>95%-CI</th><th></th><th>Weigh (random</th></td<>	Study	TE	seTE	Odds Ratio	OR		95%-CI		Weigh (random
Chen Y multicentrico FCMCH 3.31 0.9439 Chu J TH 2.11 3.2325 Duan Q WPH 0.44 0.4480 Shijao Y HHMU -0.30 0.6740 Zhou M MC 0.21 0.4367 Fixed effect model Random effects model Heterogeneity: $l^2 = 64\%$, $\tau^2 = 0.4819$, $p = 0.02$ Sev = ARDS Liu Y CHW 3.73 3.1880 Fixed effect model Heterogeneity: not applicable Sev = SEVERE (> 30 breathings OR Sat <90%) Ma K YCH 1.69 0.7888 K. YeH 3.47 1.2311 Minhua Y ZHWU 2.04 0.6049 Zheag F_NHCFH 1.50 1.4290 Colaner M PSM 1.01 0.7507 Colaner M PSM 1.01 0.7507 Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q STPH 3.42 1.0676 Fixed effect model Random effects model Heterogeneity: $l^2 = 0\%$, $\tau^2 = 0.97$, $\tau^2 = 0.987$, $\tau^2 = 0.97$, $\tau^2 = 0.987$, $\tau^2 = 0.97$, $\tau^2 = 0.987$, $\tau^2 = 0.987$, $\tau^2 = 0.987$, $\tau^2 = 0.9878$, $r^2 = 0.9978$, $r^2 = 0.9878$, $r^2 = 0.9878$, $r^2 = 0.9878$, $r^2 = 0.9878$, $r^2 = 0.9978$, $r^2 = 0.9878$, $r^2 = 0.9978$, $r^2 = 0.9878$, $r^2 = 0.9978$, $r^2 = 0.99788$, $r^2 = 0.99788$, $r^2 = 0.99788$, $r^2 = 0.99788$, r^2	Chen Y multicentrico - FCMCH 3.31 0.9439 Chu J TH 2.11 3.2325 Duan Q WPH 0.44 0.4480 Shijiao Y HHMU -0.30 0.6740 Duan Q WPH 0.44 0.4480 Shijiao Y HHMU -0.30 0.6740 Zhou M MC 0.21 0.4367 Fixed effect model Random effects model Heterogeneity: $t^2 = 64\%$, $\tau^2 = 0.4819$, $p = 0.02$ Sev = ARDS Liu Y CHW 3.73 3.1880 Fixed effect model Random effects model Heterogeneity: not applicable Sev = SEVERE (> 30 breathings OR Sat <90%) Ma K_YCH 1.69 0.7888 Xiaofei H MC 1.76 1.0429 Colaneri M PSM 1.01 0.7507 Colaneri M PSM 1.01 0.7507 Chen W_YH 3.47 1.2311 Minhua Y ZHWU 2.04 0.6049 Zheng F_NHCFH 1.50 1.4290 Fixed effect model Random effects model Heterogeneity: $t^2 = 0, p = 0.67$ Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogeneity: $t^2 = 0.976$, $\tau^2 = 0.976$, $p = 0.01$	Sev = CRITICAL (Severe ARDS	Shock	or ARM)						
Chu J \overline{TH} 2.11 3.2325 Duan Q WPH 0.44 0.4480 Dijiao Y HMU -0.30 0.6740 Dijiao Y HMU -0.30 0.6740 Dijiao Y HMU -0.30 0.6740 Di Q Di Z 10.4367 Fixed effect model Random effects model Heterogenetly: $l^2 - 64\%$, $\tau^2 - 0.4819$, $p - 0.02$ Sev = ARDS Liu Y CHW 3.73 3.1880 Fixed effect model Random effects model Heterogenetly: $l^2 - 64\%$, $\tau^2 - 0.4819$, $p - 0.02$ Sev = ARDS Liu Y CHW 3.73 3.1880 Fixed effect model Random effects model Random effects model Heterogenetly: $l^2 - 64\%$, $\tau^2 - 0.4819$, $p - 0.02$ Sev = SEVERE (> 30 breathings OR Sat <90%) Ma K_YCH 1.69 0.7888 Xiaofei H MC 1.78 1.0429 Colaneri M PSM 1.01 0.7507 Colaneri M PSM 1.01 0.7507 Chen W_YH 3.47 1.2311 Minhua Y ZHWU 2.04 0.6049 Zheng F_NHCFH 1.50 1.4290 Fixed effect model Random effects model Heterogenetly: $l^2 - 0\%$, $\tau^2 - 0$, $p - 0.67$ Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogenetly: $l^2 - 0\%$, $\tau^2 - 0.9 = 0.67$ Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogenetly: $l^2 - 0\%$, $\tau^2 - 0.97$, $t^2 - 0.97$ Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogenetly: $l^2 - 0\%$, $t^2 - 0.97$, $t^2 - 0.97$ Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogenetly: $l^2 - 0\%$, $t^2 - 0.97$, $t^2 - 0.977$, $t^2 - 0.975$, $t^2 - 0.9878$, $p < 0.01$	Chu J \overrightarrow{TH} 2.11 3.2325 Duan Q WPH 0.44 0.4460 Duan Q WPH 0.44 0.4460 Duan Q WPH 0.44 0.4460 Thiga Y HMU -0.30 0.6740 Chu M MC 0.21 0.4367 Fixed effect model Random effects model Heterogeneity: $l^2 - 64\%$, $\tau^2 - 0.4819$, $p - 0.02$ Sev = ARDS Liu Y CHW 3.73 3.1880 Fixed effect model Random effects model Random effects model Random effects model Heterogeneity: $l^2 - 6\%$, $\tau^2 - 0.4819$, $p - 0.02$ Sev = ARDS Liu Y CHW 3.73 3.1880 Fixed effect model Random effects model Random effects model Heterogeneity: $l^2 - 6\%$, $\tau^2 - 0.9578$, $p < 0.01$ Fixed effect model Random effects model Heterogeneity: $l^2 - 0\%$, $\tau^2 - 0.9578$, $p < 0.01$ Fixed effect model Random effects model Heterogeneity: $l^2 - 0\%$, $\tau^2 - 0.9578$, $p < 0.01$ Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: $l^2 - 0\%$, $\tau^2 - 0.9578$, $p < 0.01$									12.29
Duan Q_WPH 0.44 0.4480 1.56 $[0.65; 3.74]$ 13.8% 10 Shijao Y_HHMU -0.30 0.6740 0.74 $[0.20; 2.78]$ 6.1% 9 Duan M_MC 0.21 0.4367 1.23 $[0.52; 2.89]$ 14.5% 11 Fixed effect model 1.18 $[0.85; 3.74]$ 13.8% 10 Random effects model 1.18 $[0.85; 3.74]$ 13.8% 10 Heterogeneity: $l^2 = 64\%$, $\tau^2 = 0.4819$, $p = 0.02$ Sev = ARDS 1.56 $[0.73; 3.34]$	Duan Q_WPH 0.44 0.4480 1.56 [0.65; 3.74] 13.8% 10 Shijao Y_HHMU -0.30 0.6740 0.74 [0.20; 2.78] 6.1% 6 Zhou M_MC 0.21 0.4367 1.23 [0.65; 3.74] 13.8% 10 Fixed effect model 1.18 [0.65; 3.74] 13.8% 10 Random effects model 1.18 [0.62; 2.28] 14.5% 11 Heterogeneity: $l^2 = 64\%$, $\tau^2 = 0.4819$, $p = 0.02 Sev = ARDS 1.56 [0.73; 3.34] $		3.31	0.9439						6.9%
Shijiao \tilde{Y} HHMU -0.30 0.6740 0.21 0.4367 Thised effect model Random effects model Heterogenetity: $t^2 - 64\%$, $t^2 - 0.4819$, $p - 0.02$ Sev = ARDS Liu Y CHW 3.73 3.1880 Fixed effect model Random effects model Heterogenetity: $t^2 - 64\%$, $t^2 - 0.4819$, $p - 0.02$ Sev = ARDS Liu Y CHW 3.73 3.1880 Fixed effect model Random effects model Heterogenetity: $t^2 - 60\%$, $t^2 - 0.9878$, $t^2 - 0.9878$, $p < 0.01$ Fixed effect model Random effects model Random effects model Heterogenetity: $t^2 - 0\%$, $t^2 - 0.9878$, $p < 0.01$ Fixed effect model Random effects model Heterogenetity: $t^2 - 0\%$, $t^2 - 0.9878$, $p < 0.01$ Fixed effect model Random effects model Heterogenetity: $t^2 - 0\%$, $t^2 - 0.9878$, $p < 0.01$ Fixed effect model Random effects model Heterogenetity: $t^2 - 0\%$, $t^2 - 0.9878$, $p < 0.01$	Shijiao \tilde{Y} HHMU -0.30 0.6740 0.21 0.4367 Thised effect model Random effects model Heterogenetity: $l^2 - 64\%$, $t^2 - 0.4819$, $p - 0.02$ Sev = ARDS Liu Y_ CHW 3.73 3.1880 Fixed effect model Random effects model Heterogenetity: not applicable Sev = SEVERE (> 30 breathings OR Sat <90%) Ma K_ YCH 1.68 0.7888 Xiaofei H_MC 1.78 1.0429 Colaneri M_PSM 1.01 0.7507 Colaneri M_PSM 1.01 0.7507 Chen W_YH 3.47 1.2311 Minhua Y_ZHWU 2.04 0.6049 Zheng FNHCFH 1.50 1.4290 Fixed effect model Random effects model Heterogenetity: $l^2 - 0.\%$, $t^2 - 0.9 = 0.57$ Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogenetity: $n^2 - 0.9878$, $t^2 - 0.9878$, $p < 0.01$									1.19
Zhou M_MC 0.21 0.4367 1.23 $[0.52; 2.89]$ 14.5% 11 Fixed effect model 1.18 $[0.81; 1.72]$ 74.7% 1.56 $[0.73; 3.34]$	Zhou M_MC 0.21 0.4367 1.23 [0.52; 2.89] 14.5% 11 Fixed effect model 1.18 [0.81; 1.72] 74.7% 1.56 1.56 [0.73; 3.34]				青					10.99
Fixed effect model Random effects model Heterogeneity: $t^2 - 64\%$, $\tau^2 - 0.4819$, $p - 0.02$ Sev = ARDS Liu Y_ CHW 3.73 3.1880 Fixed effect model Random effects model Heterogeneity: not applicable Sev = SEVERE (> 30 breathings OR Sat <90%) Ma K_YCH 1.69 0.7888 Xiaofei H_MC 1.76 1.0429 Colaneri M_PSM 1.01 0.7507 Chen W_YH 3.47 1.2311 Minhua Y_ZHWU 2.04 0.6049 Zheng F_NHCFH 1.50 1.4280 Fixed effect model Random effects model Heterogeneity: $t^2 - 0\%$, $\tau^2 - 0.9 = 0.67$ Sev = PROGRES SION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model Random e	Fixed effect model Random effects model Heterogeneity: $r^2 - 64\%$, $\tau^2 - 0.4819$, $p - 0.02$ Sev = ARDS Liu Y_ CHW 3.73 3.1880 Fixed effect model Random effects model Heterogeneity: not applicable Sev = SEVERE (> 30 breathings OR Sat <90%) Ma K_YCH 1.69 0.7888 Xiaofei H_MC 1.76 1.0429 Colaneri M_PSM 1.01 0.7507 Chen W_YH 3.47 1.2311 Minhua Y_ZHWU 2.04 0.6049 Zheng F_NHCFH 1.50 1.4290 Fixed effect model Random effects model Heterogeneity: $r^2 - 0\%$, $\tau^2 - 0$, $p - 0.67$ Sev = PROGRES SION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: $r^2 - 0\%$, $\tau^2 - 0.9878$, $p < 0.01$									9.0%
Random effects model 1.56 $[0.73; 3.34]$ 51 Heterogeneity: $t^2 - 64\%, t^2 - 0.4819, p = 0.02$ Sev = ARDS 41.58 $[0.08; 21504.46]$ 0.3% 1 Sev = ARDS Liu Y_CHW 3.73 3.1880 41.58 $[0.08; 21504.46]$ 0.3% 1 Random effects model Random effects model 41.58 $[0.08; 21504.46]$ 0.3% 1 Sev = SEVERE (> 30 breathings OR Sat <90%)	Random effects model 1.56 $[0.73; 3.34]$ 51 Heterogeneity: $t^2 - 64\%, t^2 - 0.4819, p = 0.02$ Sev = ARDS 41.58 $[0.08; 21504.46]$ 0.3% 1 Liu Y_CHW 3.73 3.1880 41.58 $[0.08; 21504.46]$ 0.3% 1 Random effects model 41.58 $[0.08; 21504.46]$ 0.3% 1 1 Random effects model 41.58 $[0.08; 21504.46]$ 0.3% 1 Minhu Y_CHW 1.09 0.7888 5.40 $[1.15; 25.34]$ 4.4% 8 Colaneri M_PSM 1.01 0.7507 2.75 $[0.63; 11.90]$ 4.9% 8 Colaner M_PSM 1.01 0.7507 2.75 $[0.63; 11.91]$ 4.9% 8 Minhua Y_ZHWU 2.04 0.6049 7.71 $[2.36; 25.24]$ 7.6% 6.04 $[3.05; 11.99]$ 2.6% Random effects model Random effects model 8.6 6.04 $[3.05; 11.99]$ 2.6% 6.04 $[3.05; 11.99]$ 2.6% 6.04 $[3.05; 11.99]$ 2.6% 6.04 $[3.068]$ $[3.79; 248.68]$ <		0.21	0.4367	一前					11.09
Heterogeneity: $t^2 - 64\%$, $t^2 - 0.4819$, $p - 0.02$ Sev = ARDS Liu Y_CHW 3.73 3.1880 Fixed effect model Random effects model Heterogeneity: not applicable Sev = SEVERE (> 30 breathings OR Sat <90%) Ma K_YCH 1.69 0.7888 Xiaofei H_MC 1.76 1.0429 Colaneri M_PSM 1.01 0.7507 Chen W_YH 3.47 1.2311 Minhua Y_ZHWU 2.04 0.6049 Zheng F_NHCFH 1.50 1.4290 Chaner M_PSM 1.01 0.7507 Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogeneity: $t^2 - 0\%$, $t^2 - 0$, $p = 0.67$ Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogeneity: $t^2 - 0\%$, $t^2 - 0.9878$, $p < 0.01$	Heterogeneity: $t^2 - 64\%$, $t^2 - 0.4819$, $p - 0.02$ Sev = ARDS Liu Y_CHW 3.73 3.1880 Fixed effect model Random effects model Heterogeneity: not applicable Sev = SEVERE (> 30 breathings OR Sat <90%) Ma K_YCH 1.69 0.7888 Xiaofei H_MC 1.76 1.0429 Colaneri M_PSM 1.01 0.7507 Chen W_YH 3.47 1.2311 Minhua Y_ZHWU 2.04 0.6049 Zheng F_NHCFH 1.50 1.4290 Cicker tmodel Random effects model Heterogeneity: $t^2 - 0\%$, $t^2 - 0$, $p - 0.57$ Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: $t^2 - 0\%$, $t^2 - 0$, $p - 0.57$ Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogeneity: $t^2 - 0\%$, $t^2 - 0.9878$, $p < 0.01$				Č.			-		
Sev = ARDS Liu Y_CHW $3.73 \ 3.1880$ Fixed effect model Random effects model Heterogeneity: not applicable Sev = SEVERE (> 30 breathings OR Sat <90%)	Sev = ARDS Liu Y_CHW $3.73 \ 3.1880$ Fixed effect model Random effects model Heterogeneity: not applicable Sev = SEVERE (> 30 breathings OR Sat <90%)				n n n n n n n n n n n n n n n n n n n	1.56	[0.73]	3.34]		51.19
Liu Y_CHW 3.73 3.1880 Fixed effect model Random effects model Heterogenetty: not applicable Sev = SEVERE (> 30 breathings OR Sat <90%) Ma K_YCH 1.69 0.7888 Xiaofei H_MC 1.76 1.0429 Colaneri M_PSM 1.01 0.7507 Chen W_YH 3.47 1.2311 Minhua Y_ZHWU 2.04 0.6049 Zheng F_NHCFH 1.50 1.4290 Fixed effect model Random effects model Heterogenetty: $l^2 - 0\%$, $\tau^2 - 0$, $p = 0.67$ Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogenetty: not applicable Fixed effect model Random effects model Heterogenetty: not applicable Fixed effect model Random effects model Heterogenetty: not applicable Fixed effect model Random effects model Heterogenetty: $l^2 - 0\%$, $\tau^2 - 0.9678$, $p < 0.01$	Liu Y_CHW 3.73 3.1880 Fixed effect model Random effects model Heterogenetty: not applicable Sev = SEVERE (> 30 breathings OR Sat <90%) Ma K_YCH 1.69 0.7888 Xiaofei H_MC 1.76 1.0429 Colaneri M_PSM 1.01 0.7507 Colene W_YH 3.47 1.2311 Minhua Y_ZHWU 2.04 0.6049 Zheng F_NHCFH 1.50 1.4290 Fixed effect model Random effects model Heterogenetty: $l^2 - 0\%$, $t^2 - 0$, $p = 0.67$ Sev = PROGRES SION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogenetty: not applicable Fixed effect model Random effects model Heterogenetty: $l^2 - 0\%$, $t^2 - 0.9678$, $p < 0.01$	Heterogeneity: $I^* = 64\%$, $\tau^* = 0.4819$), p = 0.	02						
Fixed effect model 41.58 [0.08; 21504.46] 0.3% Random effects model 41.58 [0.08; 21504.46]	Fixed effect model 41.58 [0.08; 21504.46] 0.3% Random effects model 41.58 [0.08; 21504.46]	Sev = ARDS								
Random effects model 41.58 [0.08; 21504.46] - 1 Heterogeneity: not applicable 41.58 [0.08; 21504.46] - 1 Sev = SEVERE (> 30 breathings OR Sat <90%)	Random effects model 41.58 $[0.08; 21504.46]$	Liu Y_ CHW	3.73	3.1880		41.58	[0.08; 21	1504.46]	0.3%	1.29
Random effects model 41.58 [0.08; 21504.46] 1 Heterogeneity: not applicable Sev = SEVERE (> 30 breathings OR Sat <90%)	Random effects model 41.58 [0.08; 21504.46]	Fixed effect model				41.58	0.08; 21	504.46	0.3%	-
Sev = SEVERE (> 30 breathings OR Sat <90%)	Sev = SEVERE (> 30 breathings OR Sat <90%)					41.58	[0.08; 21	504.46]		1.29
Ma K_YCH 1.69 0.7888 Xiaofei H_MC 1.76 1.0429 Colaneri M_PSM 1.01 0.7507 Chen W_YH 3.47 1.2311 Minhua Y_ZHWU 2.04 0.6049 Zheng F_NHCFH 1.50 1.4290 Fixed effect model 6.04 Random effects model 6.04 Heterogeneity: $t^2 - 0., p = 0.67$ Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogeneity: $t^2 - 6.9, t^2 - 0.978, p < 0.01$	Ma K_YCH 1.69 0.7888 Xiaofei H_MC 1.76 1.0429 Colaneri M_PSM 1.01 0.7507 Chen W_YH 3.47 1.2311 Minhua Y_ZHWU 2.04 0.6049 Zheng F_NHCFH 1.50 1.4290 Fixed effect model 6.04 [3.05; 11.99] Random effects model 6.04 [3.05; 11.99] Heterogeneity: $l^2 = 0.9, \tau^2 = 0.9 = 0.67$ Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH Random effects model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: $l^2 - 69\%, \tau^2 - 0.9678, p < 0.01$	Heterogeneity: not applicable								
Xiaofei H_MC 1.76 1.0429 5.79 $[0.75; 44.67]$ 2.5% 6 Colaneri M_PSM 1.01 0.7507 2.75 $[0.63; 11.96]$ 4.9% 8 Chen W_YH 3.47 1.2311 32.00 $[2.87; 357.31]$ 1.8% 5 Minhua Y_ZHWU 2.04 0.6049 7.71 $[2.36; 25.24]$ 7.6% 9 Zheng F_NHCFH 1.50 1.4290 4.48 $[0.27; 73.78]$ 1.4% 4 Fixed effect model 6.04 $[3.05; 11.99]$ 22.6% 6.04 $[3.05; 11.99]$	Xiaofei H_MC 1.76 1.0429 5.79 $[0.75; 44.67]$ 2.5% 60 Colaneri M_PSM 1.01 0.7507 2.75 $[0.63; 11.96]$ 4.9% 80 Chen W_YH 3.47 1.2311 32.00 $[2.87; 357.31]$ 1.8% 80 Minhua Y_ZHWU 2.04 0.6049 7.71 $[2.36; 25.24]$ 7.8% 60 Zheng F_NHCFH 1.50 1.4290 4.48 $[0.27; 73.78]$ 1.4% 44 Fixed effect model 6.04 $[3.05; 11.99]$ 41 Heterogeneity: $l^2 = 0; p = 0.67$ 6.04 $[3.05; 11.99]$ 41 Sev = PROGRESSION IN SEVERITY CATEGORY 6.04 $[3.79; 248.68]$ 2.4% 60 Bi Q_STPH 3.42 1.0676 30.68 $[3.79; 248.68]$ 2.4% 60 Fixed effect model 30.68 $[3.79; 248.68]$ 2.4% 60 60 60 60 60 60 60 60 60 60 60 60 60 60 60 60 60 60 60 60 60	Sev = SEVERE (> 30 breathings	OR S	at <90%)						
Colaneri M PSM 1.01 0.7507 2.75 [0.63; 11.96] 4.9% 8 Chen W YH 3.47 1.2311 32.00 [2.87; 357.31] 1.8% 5 Minhua Y ZHWU 2.04 0.6049 7.71 [2.36; 25.24] 7.6% 9 Zheng F_NHCFH 1.50 1.4290 4.48 [0.27; 73.78] 1.4% 4 Fixed effect model 6.04 [3.05; 11.99] 22.6% Random effects model 6.04 [3.05; 11.99] - 41 Heterogeneity: $l^2 - 0\%$, $\tau^2 = 0$, $p = 0.67$ 30.68 [3.79; 248.68] 2.4% 6 Sev = PROGRESSION IN SEVERITY CATEGORY 30.68 [3.79; 248.68] 2.4% 6 Bi Q_STPH 3.42 1.0676 30.68 [3.79; 248.68] 2.4% 6 Fixed effect model 30.68 [3.79; 248.68] 2.4% 6 Random effects model 30.68 [3.79; 248.68] - 6 Fixed effect model 30.68 [3.79; 248.68] - 6 Heterogeneity: not applicable 1.86 [1.34; 2.58] 100.0% - 100 Heterogeneity: $l^2 - 69\%$,	Colaneri M PSM 1.01 0.7507 2.75 [0.63; 11.96] 4.9% 8 Chen W_YH 3.47 1.2311 32.00 [2.87; 357.31] 1.8% 5 Minhua Y ZHWU 2.04 0.6049 7.71 [2.36; 25.24] 7.6% 6 Zheng F_NHCFH 1.50 1.4290 4.48 [0.27; 73.78] 1.4% 4 Random effects model 6.04 [3.05; 11.99] 22.6% Random effects model 6.04 [3.05; 11.99] - 41 Heterogeneity: $l^2 - 0\%$, $\tau^2 - 0.p = 0.67$ 30.68 [3.79; 248.68] 2.4% 6 Sev = PROGRESSION IN SEVERITY CATEGORY 30.68 [3.79; 248.68] 2.4% 6 Bi Q_STPH 3.42 1.0676 30.68 [3.79; 248.68] 2.4% 6 Sev = PROGRESSION IN SEVERITY CATEGORY 30.68 [3.79; 248.68] 2.4% 6 Random effects model 30.68 [3.79; 248.68] 2.4% 6 Fixed effect model 30.68 [3.79; 248.68] 2.4% 6 Random effects model 1.86 [1.34; 2.58] 100.0% 3.66 1.81; 7.41] 10	Ma K_YCH	1.69	0.7888	<u></u>	5.40	[1.15;	25.34]	4.4%	8.09
Chen W_YH $3.47 \ 1.2311$ $32.00 \ [2.87; \ 357.31] \ 1.8\% \ 5$ Minhua Y_ZHWU $2.04 \ 0.6049$ $7.71 \ [2.36; \ 25.24] \ 7.6\% \ 9$ Zheng F_NHCFH $1.50 \ 1.4280$ $4.48 \ [0.27; \ 73.78] \ 1.4\% \ 4$ Fixed effect model $4.48 \ [0.27; \ 73.78] \ 1.4\% \ 4$ $6.04 \ [3.05; \ 11.99] \ 22.6\% \ 6.04 \ [3.05; \ 11.99] \ \ 41$ Heterogeneity: $t^2 - 0\%, \tau^2 - 0, p - 0.67$ $6.04 \ [3.05; \ 11.99] \ \ 41$ Sev = PROGRESSION IN SEVERITY CATEGORY $6.04 \ [3.05; \ 11.99] \ \ 41$ Bi Q_STPH $3.42 \ 1.0676$ $30.68 \ [3.79; \ 248.68] \ 2.4\% \ 6$ Random effects model $30.68 \ [3.79; \ 248.68] \ 2.4\% \ 6$ Random effects model $30.68 \ [3.79; \ 248.68] \ 2.4\% \ 6$ Fixed effect model $30.68 \ [3.79; \ 248.68] \ 2.4\% \ 6$ Random effects model $30.68 \ [3.79; \ 248.68] \ \ 6$ Heterogeneity: not applicable $1.86 \ [1.34; \ 2.58] \ 100.0\% \ 3.66 \ [1.81; \ 7.41] \ \ 100$	Chen W_YH 3.47 1.2311 32.00 $[2.87; 357.31]$ 1.8% 55 Minhua Y_ZHWU 2.04 0.6049 7.71 $[2.36; 25.24]$ 7.6% 66 Zheng F_NHCFH 1.50 1.4290 4.48 $[0.27; 73.78]$ 1.4% 4 Fixed effect model 6.04 $[3.05; 11.99]$ 22.6% 6.04 $[3.05; 11.99]$ 41 Heterogeneity: $l^2 = 0\%, \tau^2 = 0, p = 0.67$ Sev = PROGRESSION IN SEVERITY CATEGORY 6.04 $[3.05; 11.99]$ 41 Bi Q_STPH 3.42 1.0676 30.68 $[3.79; 248.68]$ 2.4% 6 Random effects model 30.68 $[3.79; 248.68]$ 2.4% 6 Bi Q_STPH 3.42 1.0676 30.68 $[3.79; 248.68]$ 2.4% 6 Random effects model 30.68 $[3.79; 248.68]$ 6 6 6 1.86 $[1.34; 2.58]$ 100.0% 3.66 1.81; 7.41] 100 Heterogeneity: l ² - 69%, t ² - 0.9678, p < 0.01	Xiaofei H_MC	1.76	1.0429	<u></u>	5.79	[0.75;	44.67]	2.5%	6.29
Minhua Y_ZHWU 2.04 0.6049 Zheng F_NHCFH 1.50 1.4290 Fixed effect model Random effects model Heterogeneity: $l^2 = 0\%$, $\tau^2 = 0$, $p = 0.67$ Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Heterogeneity: not applicable Fixed effect model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: l ² - 60%, t ² - 0.9878, p < 0.01	Minhua Y ZHWU 2.04 0.8049 Zheng F_NHCFH 1.50 1.4290 Fixed effect model 4.48 [0.27; 73.78] 1.4% Random effects model 6.04 [3.05; 11.99] 22.6% Heterogeneity: $l^2 - 0\%$, $t^2 - 0$, $p - 0.67$ Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: $l^2 - 69\%$, $t^2 - 0.9678$, $p < 0.01$	Colaneri M_PSM	1.01	0.7507	- Heimer - H	2.75	[0.63;	11.96]	4.9%	8.49
Zheng F_NHCFH 1.50 1.4290 4.48 $[0.27; 73.78]$ 1.4% 4 Fixed effect model Random effects model 6.04 $[3.05; 11.99]$ 22.6% Random effects model 6.04 $[3.05; 11.99]$	Zheng F_NHCFH 1.50 1.4290 4.48 $[0.27; 73.78]$ 1.4% 4 Fixed effect model 6.04 $[3.05; 11.99]$ 22.6% Random effects model 6.04 $[3.05; 11.99]$ 22.6% Heterogeneity: $l^2 = 0\%, \tau^2 = 0, p = 0.67$ 6.04 $[3.05; 11.99]$ 41 Sev = PROGRESSION IN SEVERITY CATEGORY 6.04 $[3.79; 248.68]$ 2.4% 6 Bi Q_STPH 3.42 1.0676 30.68 $[3.79; 248.68]$ 2.4% 6 Fixed effect model 30.68 $[3.79; 248.68]$ 2.4% 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6<	Chen W_YH	3.47	1.2311	l <u></u> ∔-•	32.00	2.87;	357.31]	1.8%	5.29
Fixed effect model 6.04 $(3.05; 11.99)$ 22.6% Random effects model 6.04 $(3.05; 11.99)$ 41 Heterogeneity: $l^2 - 0\%$, $\tau^2 - 0$, $p - 0.67$ 6.04 $(3.05; 11.99)$ 41 Sev = PROGRESSION IN SEVERITY CATEGORY 3.42 1.0676 30.68 $(3.79; 248.68)$ 2.4% 6 Fixed effect model 30.68 $(3.79; 248.68)$ 2.4% 6 Random effects model 30.68 $(3.79; 248.68)$ 2.4% 6 Fixed effect model 30.68 $(3.79; 248.68)$ 2.4% 6 Random effects model 6 6 Heterogeneity: not applicable 1.86 $(1.34; 2.58)$ 100.0% 3.66 3.66 $(1.81; 7.41)$ 100	Fixed effect model 6.04 $[3.05; 11.99]$ 22.6% Random effects model 6.04 $[3.05; 11.99]$ 22.6% Heterogeneity: $l^2 = 0\%, t^2 = 0, p = 0.67$ 6.04 $[3.05; 11.99]$		2.04	0.6049	i i≡ -	7.71	[2.36;	25.24]	7.6%	9.6%
Random effects model 6.04 $[3.05; 11.99]$ 41 Heterogeneity: $l^2 - 0\%$, $\tau^2 - 0$, $p - 0.67$ 6.04 $[3.05; 11.99]$ 41 Sev = PROGRESSION IN SEVERITY CATEGORY 30.68 $[3.79; 248.68]$ 2.4% 6 Bi Q_STPH 3.42 1.0676 30.68 $[3.79; 248.68]$ 2.4% 6 Random effects model 30.68 $[3.79; 248.68]$ 2.4% 6 Fixed effect model 30.68 $[3.79; 248.68]$ 2.4% 6 Heterogeneity: not applicable 1.86 $[1.34; 2.58]$ 100.0% 3.66 $[1.81; 7.41]$ 100	Random effects model 6.04 $[3.05; 11.99]$ 41 Heterogeneity: $l^2 = 0\%$, $t^2 = 0, p = 0.67$ 6.04 $[3.05; 11.99]$ 41 Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 30.68 $[3.79; 248.68]$ 2.4% 6 Fixed effect model 30.68 $[3.79; 248.68]$ 2.4% 6 6 6 6 6 6 6 6 6 6 6 6 6		1.50	1.4290		4.48	[0.27;	73.78]	1.4%	4.39
Heterogeneitly: $l^2 - 0\%$, $\tau^2 - 0$, $p - 0.67$ Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogeneitly: not applicable Fixed effect model Random effects model Heterogeneitly: not applicable Fixed effect model Random effects model Heterogeneitly: $l^2 - 69\%$, $\tau^2 - 0.9878$, $p < 0.01$	Heterogeneity: $l^2 = 0\%$, $\tau^2 = 0$, $p = 0.67$ Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: $l^2 = 69\%$, $\tau^2 = 0.9678$, $p < 0.01$				1.1	6.04	[3.05;	11.99]	22.6%	
Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: l ² - 69%, t ² - 0.9878, p < 0.01	Sev = PROGRESSION IN SEVERITY CATEGORY Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: l ² - 69%, t ² - 0.9678, p < 0.01				۲	6.04	[3.05;	11.99]		41.79
Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: <i>I</i> ² - 69%, <i>t</i> ² - 0.9878, <i>p</i> < 0.01 Bi Q_STPH 3.42 1.0676 30.68 [3.79; 248.68] 2.4% 30.68 [3.79; 248.68] 6 1.86 [1.34; 2.58] 100.0% 3.66 [1.81; 7.41] 100	Bi Q_STPH 3.42 1.0676 Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: l ² - 69%, t ² - 0.9878, p < 0.01	Heterogeneity: $l^2 = 0\%$, $\tau^2 = 0$, $p = 0$.67							
Fixed effect model 30.68 [3.79; 248.68] 2.4% Random effects model 30.68 [3.79; 248.68] 6 Heterogeneity: not applicable 1.86 [1.34; 2.58] 100.0% Fixed effect model Image: Second second	Fixed effect model 30.68 [3.79; 248.68] 2.4% Random effects model 30.68 [3.79; 248.68] 6 Heterogeneity: not applicable 9 1.86 [1.34; 2.58] 100.0% Random effects model 9 3.66 [1.81; 7.41] 100 Heterogeneity: l ² - 69%, x ² - 0.9878, p < 0.01		RITY C	ATEGORY						
Random effects model 30.68 [3.79; 248.68] 6 Heterogeneity: not applicable 1.86 [1.34; 2.58] 100.0% 1.86 [1.34; 2.58] 100.0% Fixed effect model	Random effects model 30.68 [3.79; 248.68] - 6 Heterogeneity: not applicable 0 1.86 [1.34; 2.58] 100.0% 1.86 [1.81; 7.41] - 100 Fixed effect model 0 3.66 [1.81; 7.41] - 100 Heterogeneity: l ² - 69%, t ² - 0.9878, p < 0.01	Bi Q_STPH	3.42	1.0676						6.19
Heterogeneity: not applicable Fixed effect model Random effects model Heterogeneity: <i>I</i> ² − 69%, τ ² − 0.9878, <i>p</i> < 0.01	Heterogeneity: not applicable Fixed effect model Fixed effect model Fixed effects				\diamond					
Fixed effect model Random effects model Heterogeneity: <i>I</i> ² − 69%, τ ² − 0.9878, <i>p</i> < 0.01	Fixed effect model Random effects model Heterogeneity: l ² = 69%, τ ² = 0.9878, p < 0.01				\sim	30.68	[3.79;	248.68]		6.19
Random effects model Heterogeneity: <i>I</i> ² - 69%, <i>t</i> ² - 0.9878, <i>p</i> < 0.01 	Random effects model Heterogeneity: I ² = 69%, τ ² = 0.9878, p < 0.01	Heterogeneity: not applicable								
Heterogeneity: 1 ² = 69%, τ ² = 0.9878, p < 0.01	Heterogeneity: 12 = 69%, t2 = 0.9878, p < 0.01	Fixed effect model			•	1.86	[1.34;	2.58]	100.0%	-
					¢.	3.66	[1.81;	7.41]		100.09
	Residual heterogeneity: 1 ² = 41%, p = 0.08 0.001 0.1 1 10 1000									
Residual heterogeneity: /* = 41%, p = 0.08 0.001 0.1 1 10 1000		Residual heterogeneity: I ² = 41%, p	- 0.08	0.001	0.1 1 10 1000					

Candidate variable: Crazy paving pattern (CT assessment), outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	95%-CI	Weight (fixed)	Weight (random)
Sev = CRITICAL (Sev Li K_CMU Liu T_UH Shijao Y_HHMU Hu L_TH Fixed effect model Random effects model Helerogenelty: I ² = 0%, 1	-1.37 3.3419 2.79 3.1968 -0.38 0.6600 -4.29 3.1717	ARM)	16.32 0.69 0.01	[0.00; 177.14] [0.03; 8585.32] [0.19; 2.50] [0.00; 6.84] [0.19; 2.17] [0.19; 2.17]	0.2% 3.7% 0.2%	0.4% 0.4% 7.0% 0.4% 8.3%
Sev = PROGRESSION Liu W_MC Fixed effect model Random effects model Heterogeneity: not applic	-0.71 1.0993	EGORY	0.49 0.49 0.49	[0.06; 4.23] [0.06; 4.23] [0.06; 4.23]		3.2%
Sev = SEVERE (> 30 I Qi D_multicentrico Chen X_FHC/LCH Wang Z_UH Zhang G_WXDPH Cao M_SPHCC MY_multicenter 43 hos Chen W_YH YuC_TH Fixed effect model Random effects model Heterogeneity: J ² = 58%,	0.23 0.3253 -0.10 0.4039 -1.60 0.8121 -1.43 0.5183 -3.02 3.1808 - -90.51 0.5349 -2.20 3.2089 - -0.22 0.2122 -1.18 0.2954 el	90%)	1.26 0.90 0.20 0.24 0.05 0.60 0.11 0.81 0.31 0.56	[0.67; 2.38] [0.41; 1.99] [0.04; 0.96] [0.00; 24.03] [0.21; 1.71] [0.00; 59.87] [0.53; 1.22] [0.17; 0.53] [0.49; 0.81] [0.34; 0.90]	9.8% 2.4% 6.0% 0.2% 5.6% 35.6% 18.3%	14.6% 12.3% 5.2% 9.5% 9.2% 0.4% 18.2% 15.2% 85.2%
Sev = ARDS Zhao W_BYH Fixed effect model Random effects model Heterogeneity: not applic		101	0.12 0.12 0.12	[0.02; 1.00] [0.02; 1.00] [0.02; 1.00]	1.4% 1.4% 	3.3% 3.3%
Fixed effect model Random effects mode Heterogeneity: / ² = 42%, Residual heterogeneity: /	$\tau^2 = 0.2010, p = 0.05$,.001 0.1 1 10 1000	0.61 0.54	[0.48; 0.79] [0.35; 0.81]		 100.0%

Candidate variable: Consolidation pattern, outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR		95%-CI	Weight (fixed)	
Sev = CRITICAL (Severe ARDS S	hock or ARM)						
LIK CMU	1.85 0.6693		6.38	[1.72;	23.69]	1.2%	3.9
Liu K_MC	5.49 3.1952			[0.46; 12		0.1%	0.5
Chen Y multicentrico- FCMCH	0.36 0.6981		1.43	[0.36;	5.61	1.1%	3.8
Chu J TH	-0.77 0.9417		0.46	[0.07;	2.921	0.6%	3.0
Zhang L TH	1.94 0.9488		6.96	[1.08;	44.701	0.6%	3.0
FY_JH, SPHCC, TPH	-0.98 0.4446		0.38	[0.16;		2.8%	4.6
Zhou M MC	1.88 0.3354		6.58	[3.41;	12.70]	4.9%	5.0
Fixed effect model	1.00 0.3334		2.46	[1.59;	3.79]	11.4%	5.0
Random effects model		L.	2.40	[0.70;	8.21]	11.470	23.7
Heterogeneity: $I^2 = 83\%$, $\tau^2 = 1.9779$,	p < 0.01	Ĩ	2.40	[0.70,	0.21]		23.1
Sev = SEVERE (> 30 breathings	OR Sat <90%)						
Jin-Jin Z MC	0.83 0.2969	+	2.29	[1.28;	4,10]	6.3%	5.1
Lu Jiatao WHH	-1.74 3.2466		0.18	[0.00;	102.11]	0.1%	0.5
Qi D multicentrico	2.46 0.6246		11.69	[3.44;	39.76]	1.4%	4.0
Lei L CUTGH	1.90 0.9025	<u> </u>	6.67	[1.14;	39.10]	0.7%	3.1
Feng Z_TXH	0.14 0.7993	_ <u>_</u>	1.15	[0.24;		0.9%	3.4
Ma K YCH	2.25 0.6774		9.44	[2.50;	35.62]	1.2%	3.8
Tabata S_SDFCH	1.18 0.5874	<u>L</u>	3.24	[1.02;	10.25]	1.6%	4.1
Kuang Y MC	1.28 0.4262		3.58	[1.55:		3.0%	4.7
CM FAHSYU	2.12 0.5234	.	8.32	[2.98;	23.20]	2.0%	4.4
Hongying S FAHWMU/SAHWMU			1.37	[0.00;	876.74]	0.1%	0.5
Xin L CHWC/hospitales en Hunan		<u>.</u>	3.69	[1.30;	10.46]	2.0%	4.3
Chen W YH	1.23 0.9271		3.43	[0.56;	21.10]	0.6%	3.0
Minhua Y ZHWU	1.06 0.7643		2.88	[0.64;	12.86]	0.9%	3.5
YuC TH	-0.42 0.1024		0.65	[0.54;			5.5
Zhang R RH	1.97 0.5347	1	7.16	[2.51;	20.43	1.9%	4.3
Zheng F NHCFH	-0.39 0.4257		0.68	[0.30;		3.0%	4.7
Fixed effect model	0.00 0.4201		1.10	[0.93;	1.30]	78.4%	
Random effects model		\	3.07	[1.60;	5.891		59.0
Heterogeneity: $l^2 = 86\%$, $\tau^2 = 1.2280$,	n < 0.01		5.01	[1.00,	2.02]		55.0
Sev = PROGRESSION IN SEVER Zhao W SXH	ITY CATEGORY 0.09 0.3809		1.09	[0.52;	2.301	3.8%	4.8
Wang X DFH	0.78 0.3674	E	2.19	[1.07;		4.1%	4.0
Fixed effect model	0.70 0.3074		1.57	[0.93;		7.9%	4.3
Random effects model		E .	1.57	[0.53;	-	1.370	9.7
Heterogeneity: $l^2 = 43\%$, $\tau^2 = 0.1042$,	p = 0.19	4	1.30	[0.10,	2.02]		5.1
Sev = OTHER							
Ying S_hospitales en Beijing	0.47 0.6513	-	1.61	[0.45;		1.3%	3.9
Fixed effect model		*	1.61	[0.45;	5.76]	1.3%	
Random effects model		÷	1.61	[0.45;	5.76]		3.9
Heterogeneity: not applicable							
Sev = IMV	0 44 0 7402		0.64	10.40	2 621	1.10/	27
Herold T_UH	-0.44 0.7182		0.64	[0.16;		1.1%	3.7
Fixed effect model		A A	0.64	[0.16;	2.63]	1.1%	3.7
Random effects model		9	0.64	[0.16;	2.63]		5.1
Heterogeneity: not applicable							
Fixed effect model			1.24	[1.07;		100.0%	100.0
Random effects model		♥	2.46	[1.54;	3.93]		100.0
Heterogeneity: $l^2 = 84\%$, $\tau^2 = 1.0381$,	n < 0.01						

Candidate variable: Enlarged lymph nodes, outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	95%-CI		Weight (random)
Sev = CRITICAL (Severe ARDS S Chu J_TH Zhou M_MC Fixed effect model Random effects model Heterogeneity: l^2 = 0%, τ^2 = 0, p = 0.3	0.31 0.8610 0.03 0.4852	+++++++++++++++++++++++++++++++++++++++	1.03 1.10		16.9%	6.1% 17.8%
Sev = PROGRESSION IN SEVER Zhao W_SXH Fixed effect model Random effects model Heterogenelty: not applicable	TY CATEGOR -1.73 3.3387 - -		0.18	[0.00; 123.53] [0.00; 123.53] [0.00; 123.53]	0.4%	0.4% 0.4%
Sev = SEVERE (> 30 breathings Feng Z_TXH Wang Y_ZH(Multicéntrico) Xiaofei H_MC Kuang Y_MC Hongying S_FAHWMU/SAHWMU Zhang R_RH Fixed effect model Random effects model Heterogenetly: $l^2 = 0\%$, $\tau^2 = 0$, $p = 0.5$	0.55 1.1312 -0.07 1.0569 1.47 0.4321 1.16 1.0203 -0.75 3.2426 2.62 1.1400	** **	0.93 4.33 3.19 0.47 13.69 3.57	[0.19; 15.87] [0.12; 7.39] [1.86; 10.11] [0.43; 23.55] [0.00; 273.15] [1.47; 127.90] [1.85; 6.90] [1.85; 6.90]	3.6% 21.4% 3.8% 0.4% 3.1%	3.6% 4.1% 21.8% 4.4% 0.4% 3.6%
Sev = ICU Colombi D_GdSH Fixed effect model Random effects model Heterogeneity: not applicable	0.65 0.3081		1.91	[1.04; 3.49] [1.04; 3.49] [1.04; 3.49]	42.0%	
Fixed effect model Random effects model Heterogeneity: <i>I</i> ² = 6%, <i>t</i> ² = 0.0305, <i>p</i> Residual heterogeneity: <i>I</i> ² = 0%, <i>p</i> = ([1.41; 3.09] [1.37; 3.20]		 100.0%

Candidate variable: Pleural effusion (X ray or CT assessment). outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR	95		Weight (fixed)	Weight (random)
Sev = CRITICAL (Severe ARDS S	hock or ARM)						
Li K_CMU	5.21 3.1970		184.00	[0.35; 968	56.04]	0.1%	0.6%
Liu K MC	4.21 3.2268		67.67	[0.12; 377	52.68]	0.1%	0.6%
Mo P_ZH	1.17 0.8495		3.22	[0.61;	17.02]	1.6%	5.1%
Chen Y_ multicentrico- FCMCH	1.17 1.2746		3.23	[0.27; 3	39.28	0.7%	2.9%
Chu J_TH	0.03 1.1729		1.03	[0.10;	10.22]	0.9%	3.3%
FY_JH, SPHCC, TPH	1.65 0.4264		5.22	[2.26;	12.04]	6.5%	9.4%
Zhou M_MC	0.55 0.3595		1.74	[0.86;	3.52]	9.2%	10.2%
Fixed effect model		4	2.80	[1.72;	4.56]	19.2%	
Random effects model Heterogeneity: $I^2 = 18\%$, $\tau^2 = 0.1294$,	p = 0.29		2.93	[1.56;	5.51]		32.0%
Sev = SEVERE (> 30 breathings (
Qi D multicentrico	3.79 3.3203	<u>III</u>	44 29	[0.07; 296	84 941	0.1%	0.5%
Shi W SPHCC	1.52 0.6941	<u></u>	4.59		17.91]	2.5%	6.4%
Lei L CUTGH	5.55 1.4798	⊪		[14.19; 46		0.5%	2.3%
	-1.57 3.2142		0.21	[0.00; 1		0.1%	0.6%
Wang Y_ZH(Multicéntrico)	1.69 0.7261	<u>.</u>	5.44		22.57	2.3%	6.1%
Xiaofei H MC	1.28 0.6826	<u></u>	3.61		13.761	2.5%	6.5%
Kuang Y MC	1.86 1.2413	<u></u>	6.44		73.34	0.8%	3.0%
CM FAHSYU	3.24 3.3414			[0.04; 178		0.1%	0.5%
Hongying S FAHWMU/SAHWMU			1.54	[0.00; 9		0.1%	0.5%
Chen W YH	5.17 3.2687	<u></u> ,		[0.29; 1068]		0.1%	0.6%
Minhua Y ZHWU	1.41 0.6119	<u>i.</u>	4.10	[1.23;		3.2%	7.2%
YuC_TH	0.34 0.1481	+	1.41	[1.05;	1.88		12.4%
Zhang R RH	5.94 3.1892	12		[0.74; 1977		0.1%	0.6%
Fixed effect model		¢	1.83	[1.41;	2.371	66.5%	
Random effects model		•	5.24		12.341		47.3%
Heterogeneity: $I^2 = 58\%$, $\tau^2 = 0.9078$,	p < 0.01	¢		L /	1		
Sev = PROGRESSION IN SEVER							
	-0.91 0.6813		0.40	[0.11;	1.53]	2.6%	6.5%
Fixed effect model			0.40	[0.11;	1.53]	2.6%	
Random effects model			0.40	[0.11;	1.53]		6.5%
Heterogeneity: not applicable							
Sev = ICU Colombi D GdSH	0.70 0.3317		2.01	[1.05;	3.85]	10.8%	10.5%
Fixed effect model		\$	2.01	[1.05;	3.85		
Random effects model		\$	2.01	[1.05;	3.85		10.5%
Heterogeneity: not applicable					-		
Sev = OTHER	2 22 4 4470		25.00	12.04. 2	1 201	4.000	2.00
Ying S_hospitales en Beijing Fixed effect model	3.22 1.1178		25.08	[2.81; 2		1.0%	3.6%
Fixed effect model Random effects model		\sim	25.08 25.08	[2.81; 22	24.30]	1.0%	3.6%
Heterogeneity: not applicable		\sim	Z0.00	[2.01; 24	24.30J		3.0%
Fixed effect model		0	1.98	[1.60;	2.45]	100.0%	
Random effects model			3.31	[2.04;	5.38]		100.0%
Heterogeneity: $l^2 = 55\%$, $\tau^2 = 0.4752$,				-			
Residual heterogeneity: $l^2 = 50\%$, $p <$	0.01	0.001 0.1 1 10 1000					

Candidate variable: Bilateral infiltrates. outcome: severe COVID-19 disease, subgroup analysis by COVID-19 severity definition

Study	TE seTE	Odds Ratio	OR		95%-CI	Weight (fixed)	Weigl (randon
Sev = ICU		l:					
Huang C_JYH	1.47 3.3503		4.33	IO 01· 3	3080.50]	0.1%	0.5
	1.66 1.0391		5.25			0.6%	2.7
Yang L_YCPH				[0.69;	40.24]		
Colombi D_GdSH	-0.68 0.5858	1	0.51	[0.16;	1.60]	1.9%	3.9
Fixed effect model		\$	0.92	[0.34;	2.49]	2.6%	-
Random effects model		\Rightarrow	1.44	[0.22;	9.38]		7.0
Heterogeneity: $I^2 = 51\%$, $\tau^2 = 1.3245$,	p = 0.13						
Sev = CRITICAL (Severe ARDS S	hock or ARM)						
LIK CMU	2.89 3.2116		18.06	[0.03; 9	9780.32]	0.1%	0.5
Liu K MC	4.93 3.1827		138.58	[0.27; 70	0925.141	0.1%	0.5
Wei-jie G_NHC	1.61 0.3745	-	4.99	[2.40;	10.40	4.7%	4.4
	2.66 3.2623		14.25			0.1%	0.5
Chen Y_multicentrico- FCMCH					3524.88]		
Duan Q_WPH	-0.01 0.5516	T	0.99	[0.34;	2.92]	2.2%	4.0
Shijiao Y_HHMU	1.03 0.5418		2.79	[0.96;	8.07]	2.2%	4.0
Hu L_TH	-1.14 0.4572		0.32	[0.13;	0.78]	3.2%	4.2
Li J_CHW	2.50 1.0537		12.16	[1.54;	95.91]	0.6%	2.6
Liu J BDH	0.92 0.8294		2.50	[0.49;	12.70]	1.0%	3.2
Zhou M MC	1.13 0.4820	+	3.09	[1.20;	7.95	2.8%	4.1
Wu J TFAH	-0.35 0.2710	*	0.70	0.41;	1.20	9.0%	4.6
Fixed effect model	0.00 0.2110	k	1.44	[1.05;	1.96]	25.8%	
Random effects model			2.03	[0.94;	4.421	201070	32.8
Heterogeneity: $I^2 = 76\%$, $\tau^2 = 0.9859$,	p < 0.01		2.03	[0.54;	4.4Z]		J£.0
Sev = PROGRESSION IN SEVERI	TYCATEGORY						
Liu W MC	0.29 0.6735		1.34	[0.36;	5.00]	1.5%	3.6
	5.39 3.1755	<u>T</u>				0.1%	0.5
Zhao W_SXH				[0.43; 110			
Bi Q_STPH	2.50 0.5240		12.23	[4.38;	34.16]	2.4%	4.0
Fixed effect model		\$	5.65	[2.53;	12.61]	3.9%	-
Random effects model			6.05	[0.76;	48.07]		8.2
Heterogeneity: $I^2 = 75\%$, $\tau^2 = 2.1021$,	p = 0.02						
Sev = SEVERE (> 30 breathings (OR Sat <90%)						
Jin-Jin Z MC	0.67 0.6193		1.95	[0.58;	6.56]	1.7%	3.8
Lu Jiatao WHH	-0.63 0.2298		0.53	0.34;	0.83	12.5%	4.7
Shi W SPHCC	1.67 0.7516		5.33	[1.22;	23.25	1.2%	3.4
Zhang G_ZHWU	3.01 3.1927		20.28			0.1%	0.5
Chen G_TH	1.46 1.2554	1.	4.29	[0.37;	50.19]	0.4%	2.2
Feng Z_TXH	-0.06 0.8053	1	0.95	[0.20;	4.58]	1.0%	3.2
Ma K_YCH	4.78 3.1806	1: '	119.50	[0.23; 60		0.1%	0.5
Tabata S_SDFCH	1.18 0.4587		3.27	[1.33;	8.03]	3.1%	4.2
JX_WFPH	3.81 3.1964		45.07	[0.09; 23	3695.01]	0.1%	0.5
Hongying S_FAHWMU/SAHWMU	1.94 3.2258	 ;•	6.95	[0.01; 3	3868.08]	0.1%	0.5
Xin L CHWC/hospitales en Hunan	2.29 1.0530	Li.	9.85	[1.25;	77.58]	0.6%	2.6
Chen W YH	4.40 3.1894		81.79	[0.16; 42		0.1%	0.5
YuC TH	-0.70 0.1306		0.50	[0.38;			4.8
	3.36 3.1882					0.1%	0.5
Wang L_SPH Zhang D_DH				[0.06; 14			
Zhang R_RH	2.86 0.7620	1	17.50	[3.93;	77.93]	1.1%	3.4
Zheng F_NHCFH	1.95 0.5648	1	7.02	[2.32;	21.23]	2.1%	3.9
LiX_TH	1.02 0.4556	lt -	2.77	[1.13;	6.76]	3.2%	4.2
Fixed effect model		∮ ∃	0.80	[0.66;	0.98]	65.9%	-
Random effects model		\$	3.02	[1.47;	6.23]		43.7
Heterogeneity: $I^2 = 82\%$, $\tau^2 = 1.1967$,	p < 0.01						
Sev = ARDS							
Zhao W_BYH	3.38 1.0422	[→→	29.47	[3.82;	227.24]	0.6%	2.6
Dreher M_UHA	3.29 1.0946	l ⊨→	26.83	[3.14;	229.31	0.5%	2.5
Fixed effect model		\diamond	28.19	6.42;	123.74	1.2%	-
Random effects model		\diamond		[6.42;			5.2
Heterogeneity: $l^2 = 0\%$, $\tau^2 = 0$, $p = 0.9$	5	_			1		
Sev = OTHER							
Ying S hospitales en Beijing	7.30 3.2059	ļ <u> </u>	- 1478.20	[2.76; 79	1812.331	0.1%	0.5
Fixed effect model			- 1478.20			0.1%	-
Random effects model			- 1478.20			0.170	0.5
Heterogeneity: not applicable							0.0
Sev = IMV							
Herold T_UH	-0.74 1.0713		0.48	[0.06;	3.89]	0.6%	2.6
Fixed effect model	0.14 1.0110	4	0.48	[0.06;	3.89]	0.6%	2.0
Random effects model		X		[0.06;		0.0 /0	2.6
Heterogeneity: not applicable		Ť	0.48	[0.06;	3.89]		∠.0
				10.00	4.0.5	400.00	
Fixed effect model		b :	1.06	[0.90;	1.24]	100.0%	-
Random effects model Heterogeneity: $l^2 = 81\%$, $\tau^2 = 1.2735$,			2.99	[1.83;	4.87]		100.0

Candidate variable: High APACHE score (more than 8), outcome: severe COVID- 19 disease. subgroup analysis by COVID-19 severity definition

