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1. **Search strategy**

((((((((((("covid 19"[All Fields] OR "covid 2019"[All Fields]) OR "severe acute respiratory syndrome coronavirus 2"[Supplementary Concept]) OR "severe acute respiratory syndrome coronavirus 2"[All Fields]) OR "2019 ncov"[All Fields]) OR "sars cov 2"[All Fields]) OR "2019ncov"[All Fields]) OR (("wuhan"[All Fields] AND ("coronavirus"[MeSH Terms] OR "coronavirus"[All Fields])) AND (2019/12/1:2019/12/31[Date - Publication] OR 2020/1/1:2020/12/31[Date - Publication]))) OR (("severe acute respiratory syndrome coronavirus 2"[Supplementary Concept] OR "severe acute respiratory syndrome coronavirus 2"[All Fields]) OR "sars cov 2"[All Fields])) OR (("severe acute respiratory syndrome coronavirus 2"[Supplementary Concept] OR "severe acute respiratory syndrome coronavirus 2"[All Fields]) OR "wuhan coronavirus"[All Fields])) OR ((("coronavirus"[MeSH Terms] OR "coronavirus"[All Fields]) OR "coronaviruses"[All Fields]) AND "2019"[All Fields])) OR ("2019"[All Fields] AND "n-CoV"[All Fields])) AND (((((("laboratorial"[All Fields] OR "laboratories"[MeSH Terms]) OR "laboratories"[All Fields]) OR "laboratory"[All Fields]) OR "laboratory s"[All Fields]) OR (((((("demographical"[All Fields] OR "demographically"[All Fields]) OR "demography"[MeSH Terms]) OR "demography"[All Fields]) OR "demographic"[All Fields]) OR "demographics"[All Fields]))) AND ((((((((((((((((((((((((("thrombose"[All Fields] OR "thrombosing"[All Fields]) OR "thrombosis"[MeSH Terms]) OR "thrombosis"[All Fields]) OR "thrombosed"[All Fields]) OR "thromboses"[All Fields]) OR ((((((((((((((((((("blood coagulation"[MeSH Terms] OR ("blood"[All Fields] AND "coagulation"[All Fields])) OR "blood coagulation"[All Fields]) OR "coagulation"[All Fields]) OR "blood coagulation tests"[MeSH Terms]) OR (("blood"[All Fields] AND "coagulation"[All Fields]) AND "tests"[All Fields])) OR "blood coagulation tests"[All Fields]) OR "coagulability"[All Fields]) OR

"coagulable"[All Fields]) OR "coagulants"[Pharmacological Action]) OR "coagulants"[MeSH Terms]) OR "coagulants"[All Fields]) OR "coagulant"[All Fields]) OR "coagulate"[All Fields]) OR "coagulated"[All Fields]) OR "coagulates"[All Fields]) OR "coagulating"[All Fields]) OR "coagulational"[All Fields]) OR "coagulations"[All Fields]) OR "coagulative"[All Fields]) OR "coagulator"[All Fields]) OR "coagulators"[All Fields])) OR ((("inflammation"[MeSH Terms] OR "inflammation"[All Fields]) OR "inflammations"[All Fields]) OR "inflammation s"[All Fields])) OR "clot"[All Fields]) OR (("fibrin fragment d"[Supplementary Concept] OR "fibrin fragment d"[All Fields]) OR "d dimer"[All Fields])) OR (("prothrombin time"[MeSH Terms] OR ("prothrombin"[All Fields] AND "time"[All Fields])) OR "prothrombin time"[All Fields])) OR "PT"[All Fields]) OR ((((("partial thromboplastin time"[MeSH Terms] OR (("partial"[All Fields] AND "thromboplastin"[All Fields]) AND "time"[All Fields])) OR "partial thromboplastin time"[All Fields]) OR ((("activated"[All Fields] AND "partial"[All Fields]) AND "thromboplastin"[All Fields]) AND "time"[All Fields])) OR "activated partial thromboplastin time"[All Fields])) OR "aPTT"[All Fields]) OR ((((("fibrinogen"[MeSH Terms] OR "fibrinogen"[All Fields]) OR "fibrinogens"[All Fields]) OR "fibrinogen s"[All Fields]) OR "fibrinogene"[All Fields])) OR (("formycin diphosphate"[Supplementary Concept] OR "formycin diphosphate"[All Fields]) OR "fdp"[All Fields])) OR ((((("fibrin fibrinogen degradation products"[MeSH Terms] OR ((("fibrin"[All Fields] AND "fibrinogen"[All Fields]) AND "degradation"[All Fields]) AND "products"[All Fields])) OR "fibrin fibrinogen degradation products"[All Fields]) OR (("fibrin"[All Fields] AND "degradation"[All Fields]) AND "products"[All Fields])) OR "fibrin degradation products"[All Fields])) OR ((((("l-lactate dehydrogenase"[MeSH Terms] OR ("l lactate"[All Fields] AND "dehydrogenase"[All Fields])) OR "l lactate dehydrogenase"[All Fields]) OR (("lactic"[All Fields] AND "acid"[All Fields])

AND "dehydrogenase"[All Fields])) OR "lactic acid dehydrogenase"[All Fields])) OR "LDH"[All Fields]) OR (("interleukin-6"[MeSH Terms] OR "interleukin 6"[All Fields]) OR "interleukin 6"[All Fields])) OR (("interleukin-6"[MeSH Terms] OR "interleukin 6"[All Fields]) OR "il 6"[All Fields])) OR (("interleukin-6"[MeSH Terms] OR "interleukin 6"[All Fields]) OR "il 6"[All Fields])) OR ((((("ferritin s"[All Fields] OR "ferritine"[All Fields]) OR "ferritins"[MeSH Terms]) OR "ferritins"[All Fields]) OR "ferritin"[All Fields])) OR ("curr res psychol"[Journal] OR "crp"[All Fields])) OR ((("c-reactive protein"[MeSH Terms] OR ("c reactive"[All Fields] AND "protein"[All Fields])) OR "c reactive protein"[All Fields]) OR "c reactive protein"[All Fields])) OR ("high"[All Fields] AND (((((((("hypersensitivity"[MeSH Terms] OR "hypersensitivity"[All Fields]) OR "sensitive"[All Fields]) OR "sensitively"[All Fields]) OR "sensitives"[All Fields]) OR "sensitivities"[All Fields]) OR "sensitivity and specificity"[MeSH Terms]) OR ("sensitivity"[All Fields] AND "specificity"[All Fields])) OR "sensitivity and specificity"[All Fields]) OR "sensitivity"[All Fields]) AND ((("c-reactive protein"[MeSH Terms] OR ("c reactive"[All Fields] AND "protein"[All Fields])) OR "c reactive protein"[All Fields]) OR "c reactive protein"[All Fields]))) OR "hsCRP"[All Fields])

1 **Translations**

2 **COVID-19:** "COVID-19"[All Fields] OR "COVID-2019"[All Fields] OR "severe acute respiratory syndrome coronavirus 2"[Supplementary Concept] OR "severe acute respiratory syndrome coronavirus 2"[All Fields] OR "2019-nCoV"[All Fields] OR "SARS-CoV-2"[All Fields] OR "2019nCoV"[All Fields] OR (("Wuhan"[All Fields] AND ("coronavirus"[MeSH Terms] OR "coronavirus"[All Fields])) AND (2019/12[PDAT] OR 2020[PDAT]))

3 **SARS-CoV-2:** "severe acute respiratory syndrome coronavirus 2"[Supplementary Concept] OR "severe acute respiratory syndrome coronavirus 2"[All Fields] OR "sars cov 2"[All Fields]

4 **Wuhan coronavirus:** "severe acute respiratory syndrome coronavirus 2"[Supplementary Concept] OR "severe acute respiratory syndrome coronavirus 2"[All Fields] OR "wuhan coronavirus"[All Fields]

5 **Coronavirus:** "coronavirus"[MeSH Terms] OR "coronavirus"[All Fields] OR "coronaviruses"[All Fields]

6 **laboratory:** "laboratorial"[All Fields] OR "laboratories"[MeSH Terms] OR "laboratories"[All Fields] OR "laboratory"[All Fields] OR "laboratory's"[All Fields]

7 **demographics:** "demographical"[All Fields] OR "demographically"[All Fields] OR "demography"[MeSH Terms] OR "demography"[All Fields] OR "demographic"[All Fields] OR "demographics"[All Fields]

8 **thrombosis:** "thrombose"[All Fields] OR "thrombosing"[All Fields] OR "thrombosis"[MeSH Terms] OR "thrombosis"[All Fields] OR "thrombosed"[All Fields] OR "thromboses"[All Fields]

9 **coagulation:** "blood coagulation"[MeSH Terms] OR ("blood"[All Fields] AND "coagulation"[All Fields]) OR "blood coagulation"[All Fields] OR "coagulation"[All Fields] OR "blood coagulation tests"[MeSH Terms] OR ("blood"[All Fields] AND "coagulation"[All Fields] AND "tests"[All Fields]) OR "blood coagulation tests"[All Fields] OR "coagulability"[All Fields] OR "coagulable"[All Fields] OR "coagulants"[Pharmacological Action] OR "coagulants"[MeSH Terms] OR "coagulants"[All Fields] OR "coagulant"[All Fields] OR "coagulate"[All Fields] OR "coagulated"[All Fields] OR "coagulates"[All Fields]

OR "coagulating"[All Fields] OR "coagulational"[All Fields] OR "coagulations"[All Fields] OR "coagulative"[All Fields] OR "coagulator"[All Fields] OR "coagulators"[All Fields]

10 **inflammation:** "inflammation"[MeSH Terms] OR "inflammation"[All Fields] OR "inflammations"[All Fields] OR "inflammation's"[All Fields]

11 **d-dimer:** "fibrin fragment D"[Supplementary Concept] OR "fibrin fragment D"[All Fields] OR "d dimer"[All Fields]

12 **Prothrombin time:** "prothrombin time"[MeSH Terms] OR ("prothrombin"[All Fields] AND "time"[All Fields]) OR "prothrombin time"[All Fields]

13 **activated Partial thromboplastin time:** "partial thromboplastin time"[MeSH Terms] OR ("partial"[All Fields] AND "thromboplastin"[All Fields] AND "time"[All Fields]) OR "partial thromboplastin time"[All Fields] OR ("activated"[All Fields] AND "partial"[All Fields] AND "thromboplastin"[All Fields] AND "time"[All Fields]) OR "activated partial thromboplastin time"[All Fields]

14 **Fibrinogen:** "fibrinogen"[MeSH Terms] OR "fibrinogen"[All Fields] OR "fibrinogens"[All Fields] OR "fibrinogen's"[All Fields] OR "fibrinogene"[All Fields]

15 **FDP:** "formycin diphosphate"[Supplementary Concept] OR "formycin diphosphate"[All Fields] OR "fdp"[All Fields]

16 **Fibrin degradation products:** "fibrin fibrinogen degradation products"[MeSH Terms] OR ("fibrin"[All Fields] AND "fibrinogen"[All Fields] AND "degradation"[All Fields] AND "products"[All Fields]) OR "fibrin fibrinogen degradation products"[All Fields] OR ("fibrin"[All Fields] AND "degradation"[All Fields] AND "products"[All Fields]) OR "fibrin degradation products"[All Fields]

17 **Lactic acid dehydrogenase:** "l-lactate dehydrogenase"[MeSH Terms] OR ("l-lactate"[All Fields] AND "dehydrogenase"[All Fields]) OR "l-lactate dehydrogenase"[All Fields] OR ("lactic"[All Fields] AND "acid"[All Fields] AND "dehydrogenase"[All Fields]) OR "lactic acid dehydrogenase"[All Fields]

18 **Interleukin-6:** "interleukin-6"[MeSH Terms] OR "interleukin-6"[All Fields] OR "interleukin 6"[All Fields]

19 **IL 6:** "interleukin-6"[MeSH Terms] OR "interleukin-6"[All Fields] OR "il 6"[All Fields]

20 **IL-6:** "interleukin-6"[MeSH Terms] OR "interleukin-6"[All Fields] OR "il 6"[All Fields]

21 **Ferritin:** "ferritin's"[All Fields] OR "ferritine"[All Fields] OR "ferritins"[MeSH Terms] OR "ferritins"[All Fields] OR "ferritin"[All Fields]

22 **CRP:** "Curr Res Psychol"[Journal:__jid101697883] OR "crp"[All Fields]

23 **C-reactive protein:** "c-reactive protein"[MeSH Terms] OR ("c-reactive"[All Fields] AND "protein"[All Fields]) OR "c-reactive protein"[All Fields] OR "c reactive protein"[All Fields]

24 **sensitivity:** "hypersensitivity"[MeSH Terms] OR "hypersensitivity"[All Fields] OR "sensitive"[All Fields] OR "sensitively"[All Fields] OR "sensitives"[All Fields] OR "sensitivities"[All Fields] OR "sensitivity and specificity"[MeSH Terms] OR ("sensitivity"[All Fields] AND "specificity"[All Fields]) OR "sensitivity and specificity"[All Fields] OR "sensitivity"[All Fields]

25 **C reactive protein:** "c-reactive protein"[MeSH Terms] OR ("c-reactive"[All Fields] AND "protein"[All Fields]) OR "c-reactive protein"[All Fields] OR "c reactive protein"[All Fields]

2. **Table 1**. Demographics of included patients (All data are presented as severe/non-severe groups format)

Study name	Total patients (n)	Age (mean, years)	Men (%)	HTN (%)	Diabetes (%)	Coronary or CVD (%)	CKD (%)	Malignancy (%)	CLD (%)	COPD (%)
Bazzan et al.[1]	9/79	71.9/59.4	66.7/68.4	-	-	-	-	-	-	-
Bonetti et al.[2]	70/74	78/62.1	64.3/68.9	-	30/21.6	54.3/44.6	12.9/4.1	-	-	-
Burian et al.[3]	28/37	64.9/59	-	-	-	-	-	-	-	-
Cen et al.[4]	222/720	68/69	59/68.5	41.9/20.1	24.3/7.1	13.1/5.8	2.7/0.8	-	-	11.3/1.9
Chen et al. (1)[5]	24/126	68.5/57.1	75/52.4	58.3/27.8	20.8/11.9	25/2.4	-	-	-	-
Chen et al. (2)[6]	11/10	61/52	90.9/70	36.4/10	18.2/10	-	-	-	-	-
Chen et al. (3)[7]	17/21	79.6/52.8	88.2/61.9	70.6/28.6	41.2/19	52.9/19	-	17.6/4.8	5.9/14.3	-
Deng et al.[8]	109/116	69/40	67/44	36.7/15.5	15.6/7.8	11.9/3.4	-	5.5/1.7	-	-
Du et al.[9]	21/158	70.2/56	47.6/55.1	61.9/28.5	28.6/17.1	57.1/10.8	-	4.8/1.9	-	-
Duan et al.[10]	20/328	58/44	70/51.8	20/7	10/2.7	0/1.5	0/0.3	N/A	10/2.7	-
Fan et al.[11]	47/26	65.5/46.2	68.1/65.4	44.7/11.5	-	14.9/0	-	-	-	-
Fogarty et al.[12]	33/50	67.9/60.5	66.7/66	-	-	-	-	-	-	-
Fu et al.[13]	16/59	51.8/45.1	62.5/59.3	-	-	-	-	-	-	-
Gan et al.[14]	39/56	70/62	71.8/53.6	43.6/41.1	25.6/21.4	12.8/8.9	2.6/10.7	12.8/1.8	-	20/0
Gao et al.[15]	15/28	45.2/43	60/60.7	40/25	40/3.6	6.7/7.1	-	-	-	20/0
Gong et al.[16]	28/161	63.5/45	57.1/44.7	-	-	-	-	-	-	-
Goshua et al.[17]	48/20	64/58	68.8/40	58.3/50	33.3/20	-	14.6/0	6.3/0	-	-
Huang et al.[18]	13/28	49/49	84.6/67.9	15.4//14.3	7.7/25	23.1/10.7	-	0/3.6	0/3.6	7.7/0
Javanian et al.[19]	19/81	69.3/57.7	63.2/48.1	63.2/24.7	52.6/33.3	52.6/16	26.3/8.6	15.8/1.2	10.5/1.2	26.3/8.6
Ji et al.[20]	9/70	-	-	-	-	-	-	-	-	-
Khamis et al.[21]	24/39	50/47	87.5/82.1	29.2/33.3	45.8/23.1	-	-	-	-	-
Li et al. (1)[22]	25/58	53.7/41.9	60/34.5	8/5.2	28/0	4/0	-	-	-	16/1.7
Li et al. (2)[23]	120/136	65/49	59.2/48.5	-	-	42.5/18.4	-	-	-	-
Li et al. (3)[24]	25/68	69/43.7	60/38.2	20/0	20/8.8	16/0	-	4/4.4	-	8/8.8
Li et al. (4)[25]	122/1327	69/55	73.8/48.5	-	-	-	-	-	-	-
Li et al. (5)[26]	15/87	69/55	-	46.7/27.6	13.3/14.9	13.3/2.3	-	-	0/3.4	-
Liu et al. (1)[27]	12/87	-	-	-	-	-	-	-	-	-
Liu et al. (2)[28]	11/67	66/37	63.6/47.8	18.2/9	18.2/4.5	-	-	18.2/3	-	9.1/1.5
Liu et al. (3)[29]	34/302	74/64	61.8/49	-	-	-	-	-	-	-
Lu et al.[30]	22/243	-	-	45.5/17.3	27.3/6.2	22.7/4.5	9.1/1.2	4.5/2.1	4.5/0	9.1/0.8
Lv et al.[31]	84/115	-	47.6/50.4	21.4/20	9.5/7.8	7.1/4.3	-	0/1.7	-	1.2/1.7
Ma et al.[32]	20/64	58/46.5	60/56.3	20/12.5	35/4.7	-	0/1.6	0/.6	20/10.9	-
Masetti et al.[33]	33/196	75.2/58.3	78.8/62.2	72.7/32.1	39.4/15.3	27.3/6.1	18.2/2.6	24.2/8.2	-	15.2/5.6
Mao et al.[34]	88/126	58.2/48.9	50/34.1	36.4/15.1	17/11.9	8/6.3	2.3/3.2	5.7/6.3	-	-
Middeldorp et al.[35]	75/123	62/60	77.3/58.5	-	-	-	-	4/3.3	-	-
Ortiz-Brizuela et al.[36]	29/111	53/48	68/58.6	34.5/31.5	41.4/18	3.4/4.5	-	-	3.4/0.9	-
Pan et al.[37]	89/35	69/65	75.3/51.4	52.8/42.9	21.3/17.1	14.6/17.1	-	-	-	-

Qian et al.[38]	9/82	66/49	-	-	-	-	-	-	-	-
Qin et al. [39]	286/166	61/53	54.2/48.2	36.7/18.1	18.5/13.3	11.2/3.6	2.1/2.4	3.5/2.4	1/1.8	3.1/1.8
Rastad et al.[40]	301/2656	67.3/53.3	55.5/53.5	-	15.9/8.2	17.9/9.8	-	-	-	-
Ruan et al. [41]	68/82	67/50	72.1/64.6	42.6/28	17.6/15.9	29.4/6.1	2.9/0	2.9/1.2	1.5/3.7	2.9/1.2
Salacup et al.[42]	52/190	73.2/64.1	51.9/50.5	80.8/72.6	57.7/46.3	-	21.2/16.3	-	-	13.5/12.1
Satici et al.[43]	55/626	65.8/56.1	60/50.2	50.9/32.9	41.8/26.8	14.5/8.6	7.3/3.2	-	-	1.8/4.3
Shahriarirad et al.[44]	11/102	-	63.6/62.7	45.5/16.7	27.3/12.7	36.4/11.8	0/5.9	0/1	-	9.1/7.8
Shi et al.[45]	62/609	74/61	56.5/47.1	59.7/26.6	27.4/13.1	46.8/8.7	19.4/2.6	6.5/3.1	-	3.2/3.4
Sun et al.[46]	9/8	63/23	-	33.3/0	11.1/0	33.3/0	-	-	11.1/0	-
Tang et al. (1)[47]	21/162	64/52.4	76.2/50.6	-	-	-	-	-	-	-
Tang et al. (2)[48]	134/315	68.7/63.7	67.2/56.5	-	-	-	-	-	-	-
Tian et al.[49]	148/84	64/63	54.7/45.2	45.9/33.3	22.3/26.2	15.5/9.5	2.7/2.4	100/100	-	1.4/1.2
Vultaggio et al.[50]	63/145	72/63	73/60.7	58.7/42.1	27/15.9	-	9.5/5.5	12.7/9	-	-
Wan et al.[51]	40/95	56/44	52.5/54.7	10/9.5	22.5/3.2	15/1.1	-	7.5/1.1	2.5/1.1	10/0
Wang et al. (1)[52]	36/102	66/51	61.1/52	58.3/21.6	22.2/5.9	41.7/11.8	5.6/2	11.1/5.9	0/3.9	8.3/1
Wang et al. (2)[53]	19/88	73/44.5	84.2/46.6	52.6/18.2	26.3/6.8	52.6/10.2	5.3/2.3	-	5.3/5.7	5.3/2.3
Wang et al. (3)[54]	39/46	65.1/53.6	69.2/39.1	41/13	17.9/6.5	20.5/2.2	-	-	10.3/4.3	10.3/2.2
Wang et al. (4)[55]	16/193	54/42	62.5/49.2	31.3/11.4	0/5.7	6.3/2.1	-	-	-	-
Wang et al. (5)[56]	14/14	71.4/65.8	71.4/78.6	71.4/35.7	-	42.9/14.3	-	-	-	-
Wang et al. (6)[57]	15/30	62/52.2	-	-	-	-	-	-	-	-
Wu et al. (1)[58]	84/117	58.5/48	71.4/58.1	27.4/13.7	19/5.1	6/2.6	-	-	-	-
Yan et al.[59]	39/9	70.5/64.7	76.9/33.3	53.8/33.3	100/100	41/22.2	-	-	-	-
Yang et al. (1)[60]	32/20	64.6/51.9	65.6/70	-	21.9/10	31.3/10	-	3.1/5	-	-
Yang et al. (2)[61]	33/103	64/53.5	54.5/46.6	51.5/18.4	30.3/9.7	21.2/2.9	-	3/2.9	6.1/5.8	-
Yang et al. (3)[62]	24/69	57.9/42.1	75/55.1	66.7/10.1	54.2/11.6	37.5/5.8	33.3/2.9	-	-	-
Yang et al. (4)[63]	50/176	67.8/49.9	62/46.6	74/26.7	34/15.9	14/3.4	-	-	-	6/1.7
Ye et al.[64]β	52/297	69/60	69.2/46.1	57.7/24.6	30.8/13.8	-	-	-	-	-
Zeng et al.[65]	55/406	60/43	60/50.7	34.5/15.8	14.5/9.9	10.9/4.7	-	-	-	-
Zhang et al. (1)[66]	58/82	64/51.5	56.9/46.3	37.9/24.4	13.8/11	6.9/3.7	3.4/0	-	-	3.4/0
Zhang et al. (2)[67]	16/293	-	-	-	-	-	-	-	-	-
Zhang et al. (3)[68]	18/93	60/36	77.8/34.4	55.6/5.4	50/5.4	11.1/1.1	-	0/8.6	5.6/0	5.6/2.2
Zhang et al. (4)[69]	5/14	71/65	60/50	-	-	-	-	-	-	-
Zhang et al. (5)[70]	27/47	72/61	66.7/38.3	55.6/42.6	100/100	37/10.6	-	7.4/10.6	-	-
Zheng et al.[71]	30/131	57/40	46.7/50.4	40/7.6	6.7/3.8	10/3.8	-	-	0/3.1	6.7/3.1
Zhou et al. (1)[72]	54/137	69/52	70.4/59.1	48.1/23.4	31.5/13.9	24.1/1.5	3.7/0	0/1.5	-	7.4/1.5
Zhou et al. (2)[73]	5/12	42.2/41.5	-	-	-	-	-	0	-	-
Zhu et al. (1)[74]	16/111	57.5/50	56.3/65.8	50/20.7	0/9	12.5/3.6	-	6.3/3.6	-	-
Zhu et al. (2)[75]	29/73	62.2/72.6	65.5/53.4	-	-	-	-	-	-	-

PMID= PubMed ID; HTN=Hypertension; CVD=Cerebrovascular disease; CKD=Chronic Kidney disease; CLD=Chronic liver disease; COPD=Chronic obstructive pulmonary disease

3. **Table 2**. Laboratory parameters in the included studies (mean value comparisons between severe and non-severe groups)

Study name	Lymphocyte count	Platelet count	D-dimer (mg/L)	PT (sec)	aPTT (sec)	Fibrinogen (g/L)	FDP (μg/mL)
Bazzan et al.[1]	-	140/268	4.2/1.5	-	-	-	-
Bonetti et al.[2]	0.75/1.04	178/189	2/0.9	-	34/31	-	-
Burian et al.[3]	-	-	2.4/1.6	-	-	-	-
Cen et al.[4]	0.9/1.4	225/216	1.3/0.5	-	-	-	-
Chen et al. (1)[5]	-	-	-	-	-	-	-
Chen et al. (2)[6]	0.7/1.1	-	2.6/0.3	14.3/13.4	33.7/44	-	-
Chen et al. (3)[7]	0.6/1.3	-	-	-	-	-	-
Deng et al.[8]	0.6/1	-	-	-	-	-	-
Du et al.[9]	0.7/0.8	-	1.1/0.5	13.9/13.7	37.8/35.3	-	-
Duan et al.[10]	1.1/1.3	127/196	0.3/0.2	12.1/11.5	37.8/33.2	4.6/3.9	-
Fan et al.[11]	0.6/1	168/204	1.5/0.5	11.8/11.1	-	-	-
Fogarty et al.[12]	-	196/201	1/0.8	12.9/12.6	30.4/31.3	5.6/4.5	-
Fu et al.[13]	1/1.4	-	0.3/0.2	-	-	1.6/0.9	-
Gan et al.[14]	0.7/1.2	200/232	5.8/2.8	16.1/13.9	-	-	-
Gao et al.[15]	1.2/1.1	-	0.5/0.2	-	-	3.8/3.1	-
Gong et al.[16]	1/1.3	167/180	1.2/1	-	40/39.1	-	-
Goshua et al.[17]	-	-	4.2/0.7	-	-	-	-
Huang et al.[18]	0.4/1	196/149	2.4/0.5	12.2/10.7	26.2/27.7	-	-
Javanian et al.[19]	1.5/2.6	210/184	-	-	-	-	-
Ji et al.[20]	0.6/1.2	166/161	1.7/0.4	12.1/11.2	-	-	-
Khamis et al.[21]	-	253/215	2.3/0.4	-	-	-	-
Li et al. (1)[22]	0.71.2	-	-	-	-	-	-
Li et al. (2)[23]	0.8/1.2	-	0.6/0.2	-	-	-	-
Li et al. (3)[24]	0.8/1.2	136/181	0.6/0.3	13.7/13	44.6/38.3	-	-
Li et al. (4)[25]	-	166/208	3.6/0.4	14/13	35/34	4.3/3.6	-
Li et al. (5)[26]	0.5/0.9	113/207	2.1/0.7	14.9/14.1	-	-	-
Liu et al. (1)[27]	0.6/1.1	187/194	4.1/0.8	13.3/13	29.3/30.4	4.3/4.3	-
Liu et al. (2)[28]	0.5/1	144/173	0.6/0.4	-	-	-	-
Liu et al. (3)[29]	0.4/1.4	-	4.0/0.4	14.8/13.3	-	5.3/3.8	-
Lu et al.[30]	0.7/1.2	156/177	0.8/0.4	13.5/13.3	41.9/39.3	-	1.9/0.9
Lv et al.[31]	0.9/1.3	-	12/1.9	-	-	-	-
Ma et al.[32]	0.8/1.4	213/213	0.6/0.4	13.1/12.7	-	-	-
Masetti et al.[33]	0.8/1.1	159/218	3.9/0.5	-	-	5.4/5.5	-
Mao et al.[34]	0.9/1.3	205/219	0.9/0.4	-	-	-	-
Middeldorp et al.[35]	-	251/331	2/1.1	-	-	-	-
Ortiz-Brizuela et al.[36]	0.7/0.9	213/193	7.3/4.5	-	-	6.8/4.9	-
Pan et al.[37]	0.6/0.9	182/197	4/1.1	14.2/13.7	37.4/38.5	4.6/4.7	-
Qian et al.[38]	0.9/1.4	-	4.5/3	-	-	3.8/3.4	-
Qin et al. [39]	0.8/1	-	-	-	-	-	-

Rastad et al.[40]	1.1/2.5	-	-	-	-	-	-
Ruan et al. [41]	0.6/1.4	174/222	-	-	-	-	-
Salacup et al.[42]	-	-	2.2/1.5	-	-	-	-
Satici et al.[43]	0.9/1.3	199/195	1.5/0.9	-	-	4/3.5	-
Shahriarirad et al.[44]	1.4/1.1	220/221	-	16.3/15.3	37.8/37.6	-	-
Shi et al.[45]	-	153/215	-	-	-	-	-
Sun et al.[46]	0.8/2	194/204	2/0.2	21.3/12	-	3.6/2	-
Tang et al. (1)[47]	-	-	2.1/0.6	15.5/13.6	44.8/41.2	5.2/4.5	7.6/4
Tang et al. (2)[48]	-	-	4.7/1.5	16.5/14.6	-	-	-
Tian et al.[49]	0.7/1	174/201	1.9/0.7	13.9/13.2	37.7/33.2	-	-
Vultaggio et al.[50]	-	-	-	-	-	-	-
Wan et al.[51]	0.8/1.2	147/170	0.6/0.3	11.3/10.8	29.7/26.6	-	-
Wang et al. (1)[52]	0.8/0.9	142/165	4.1/1.7	13.2/12.9	30.4/31.7	-	-
Wang et al. (2)[53]	0.8/0.9	122/178	0.4/0.2	12.6/12.9	32.7/31.7	-	-
Wang et al. (3)[54]	0.7/1	175/157	0.4/0.2	13.2/12.7	29.5/30.6	-	-
Wang et al. (4)[55]	1/1.2	-	-	-	-	-	-
Wang et al. (5)[56]	0.5/0.8	175/187	11.3/0.8	14.5/14.1	39/40.7	-	-
Wang et al. (6)[57]	0.5/0.9	-	6.9/1.6	-	-	-	-
Wu et al. (1)[58]	0.7/1.1	187/178	1.2/0.5	11.7/10.6	26/29.8	-	-
Yan et al.[59]	0.5/0.9	160/161	5/0.4	15.2/13.6	39/36.3	5.1/4.8	-
Yang et al. (1)[60]	0.6/0.7	191/164	-	12.9/10.9	-	-	-
Yang et al. (2)[61]	0.8/0.9	147/176	0.9/0.5	12.1/11.6	33.7/30.7	-	-
Yang et al. (3)[62]	0.7/1.2	-	16.6/0.5	-	-	3.2/3.8	-
Yang et al. (4)[63]	0.7/1.1	-	6.2/0.6	-	-	-	-
Ye et al.[64]β	-	-	1.8/0.4	14.3/12.8	34.6/34.9	3.9/3.8	-
Zeng et al.[65]	0.7/1.2	151/199	0.5/0.3	12.6/11.9	33.5/32.5	-	-
Zhang et al. (1)[66]	0.7/0.8	-	0.4/0.2	-	-	-	-
Zhang et al. (2)[67]	0.6/1.2	156/182	0.8/0.4	-	-	-	-
Zhang et al. (3)[68]	0.6/1.3	146/190	-	-	-	-	-
Zhang et al. (4)[69]	-	88/214	3.6/2.7	17.7/15.2	71.9/46.8	3.6/4.8	20.7/11.8
Zhang et al. (5)[70]	0.7/1.4	172/318	8.3/2.4	-	-	-	-
Zheng et al.[71]	0.9/1.1	160/171	-	-	-	-	-
Zhou et al. (1)[72]	0.6/1.1	166/220	5.2/0.6	12.1/11.4	-	-	-
Zhou et al. (2)[73]	0.7/1.2	-	0.3/0.3	-	-	-	-
Zhu et al. (1)[74]	0.7/1.2	155/205	0.2/0.1	-	-	5.7/4.2	-
Zhu et al. (2)[75]	0.6/0.7	113/153	0.5/0.2	12.4/11.6	40.7/40.2	4.2/5.1	-

4. **Table 3.** Biomarkers of inflammation and end-organ damage in the included studies (mean value comparisons between severe and non-severe groups)

Study name	CRP (mg/L)	hs-CRP (mg/L)	IL-6 (pg/L)	Ferritin (ng/mL)	hs Tn I (pg/mL)	LDH, U/L
Bazzan et al.[1]	-	-	-	-	-	-
Bonetti et al.[2]	165.7/60.3	-	-	1285/702	47.5/8	521/316
Burian et al.[3]	12.4/4.8	-	103.9/51.7	-	-	-
Cen et al.[4]	25.5/44.9	-	-	-	-	262/290
Chen et al. (1)[5]	-	84.9/30.9	-	-	68.5/4.5	-
Chen et al. (2)[6]	-	-	41.5/15.3	1598/337	-	-
Chen et al. (3)[7]	-	-	64/10.4	-	-	-
Deng et al.[8]	109.3/3.2	-	-	-	-	-
Du et al.[9]	86.4/36	-	-	-	-	-
Duan et al.[10]	47/7	-	-	-	-	-
Fan et al.[11]	118.2/52.1	-	9.1/4.9	-	-	449/281
Fogarty et al.[12]	94.8/37.9	-	-	-	-	-
Fu et al.[13]	39/11.3	-	-	-	-	-
Gan et al.[14]	123.2/43.5	-	139.1/31.9	-	-	503/305
Gao et al.[15]	39.4/18.8	-	36.1/10.6	-	-	-
Gong et al.[16]	35.5/5	-	-	-	-	296/176
Goshua et al.[17]	-	-	-	-	-	-
Huang et al.[18]	-	-	-	-	3.3/3.5	400/281
Javanian et al.[19]	92/47.2	-	-	-	-	-
Ji et al.[20]	91.6/12.6	-	-	-	-	-
Khamis et al.[21]	148/37	-	-	965/632	-	444/293
Li et al. (1)[22]	89.2/9.6	-	-	-	-	-
Li et al. (2)[23]	-	-	-	-	-	-
Li et al. (3)[24]	77/7.7	-	-	810/489	13.2/7	-
Li et al. (4)[25]	93/9	-	71/9	1584/446	-	470/199
Li et al. (5)[26]	-	78.7/25.4	48.4/4.2	-	24.1/4.3	569/272
Liu et al. (1)[27]	75/37	-	81.4/39.3	-	-	-
Liu et al. (2)[28]	38.9/10.6	-	-	-	-	-
Liu et al. (3)[29]	-	-	-	-	-	-
Lu et al.[30]	53.5/8.6	-	-	-	-	-
Lv et al.[31]	65.2/33.2	-	85.3/17.4	-	-	-
Ma et al.[32]	25.4/6.1	-	13.9/2.8	-	16/17	529/386
Masetti et al.[33]	123/80	-	-	1332/577	-	-
Mao et al.[34]	37.1/9.4	-	-	-	-	302/215
Middeldorp et al.[35]	-	-	-	-	-	-
Ortiz-Brizuela et al.[36]	13.7/6.5	-	-	647/335	10.6/4	488/367
Pan et al.[37]	85.9/53.6	-	-	-	24.1/9.9	519/393

Qian et al.[38]	30.6/6	-	-	-	-	-
Qin et al. [39]	57.9/33.2	-	25.2/13.3	800/524	-	-
Rastad et al.[40]	45/16	-	-	-	-	578/442
Ruan et al. [41]	126.6/34.1	-	11.4/6.8	1298/614	-	906/298
Salacup et al.[42]	18.6/10	-	-	1357/660	-	510/360
Satici et al.[43]	147/28.8	-	-	3905/1501	13/3.8	-
Shahriarirad et al.[44]	44/33.3	-	-	-	-	-
Shi et al.[45]	111/30	-	-	-	235/6	-
Sun et al.[46]	31/5.1	-	34.1/5.3	-	-	377/232
Tang et al. (1)[47]	-	-	-	-	-	-
Tang et al. (2)[48]	-	-	-	-	-	-
Tian et al.[49]	49.4/42.5	-	16.1/3.7	850/498	9.6/1.9	340/209
Vultaggio et al.[50]	127/67.7	-	53.6/15.7	-	-	-
Wan et al.[51]	91/7.7	139.4/22	-	-	-	-
Wang et al. (1)[52]	-	-	-	-	11/5.1	435/212
Wang et al. (2)[53]	-	-	-	-	-	456/227
Wang et al. (3)[54]	-	-	-	-	9.2/5.8	364/279
Wang et al. (4)[55]	43.8/12.1	-	-	-	-	-
Wang et al. (5)[56]	134.6/12.9	-	124.5/13	1612/555	57.6/4.8	498/256
Wang et al. (6)[57]	114.9/53.6	-	-	1368/1331	-	-
Wu et al. (1)[58]	-	83/23.4	7.4/6.3	1029/458	-	396/257
Yan et al.[59]	-	97.2/13	55.8/22.2	-	43.1/1.9	501/237
Yang et al. (1)[60]	-	-	-	-	-	-
Yang et al. (2)[61]	88.4/27.1	-	-	-	-	398/251
Yang et al. (3)[62]	-	-	54.1/6.9	-	-	-
Yang et al. (4)[63]	61/15.2	-	-	-	-	-
Ye et al.[64]β	65.5/12.3	-	-	-	30/10	-
Zeng et al.[65]	44.1/5.5	-	-	-	-	280/173
Zhang et al. (1)[66]	47.6/28.7	-	-	-	-	-
Zhang et al. (2)[67]	71.2/11.4	-	33/1.1	-	-	371/225
Zhang et al. (3)[68]	79.5/7.9	-	35.7/5.1	-	-	-
Zhang et al. (4)[69]	-	-	-	-	-	-
Zhang et al. (5)[70]	51.8/8.7	-	51.9/4.1	-	16.5/2.7	281/176
Zheng et al.[71]	52.2/15.4	-	-	-	-	-
Zhou et al. (1)[72]	-	-	11/6.3	1435/503	22.2/3	521/254
Zhou et al. (2)[73]	4.8/1.8	-	-	-	-	157/180
Zhu et al. (1)[74]	36.6/8.5	-	24.1/3.8	-	-	-
Zhu et al. (2)[75]	-	-	-	-	-	786/352

5. **Table 4.** Clinical outcomes in included studies (percentage comparisons between severe and non-severe groups)

Study name	All-cause mortality (%)	Stroke/TIA (%)	Acute cardiac injury (%)	ARDS (%)
Bazzan et al.[1]	100/0	-	-	-
Bonetti et al.[2]	100/0	-	-	-
Burian et al.[3]	-	-	-	-
Cen et al.[4]	-	-	-	-
Chen et al. (1)[5]	41.7/0.8	-	-	-
Chen et al. (2)[6]	36.4/0	-	9.1/10	54.5/0
Chen et al. (3)[7]	-	-	-	-
Deng et al.[8]	100/0	-	59.6/0.9	89.9/8.6
Du et al.[9]	100/0	-	-	-
Duan et al.[10]	-	-	-	-
Fan et al.[11]	100/0	-	-	-
Fogarty et al.[12]	39.4/0	-	-	-
Fu et al.[13]	-	-	-	-
Gan et al.[14]	100/0	-	-	-
Gao et al.[15]	-	-	-	-
Gong et al.[16]	-	-	-	-
Goshua et al.[17]	-	-		-
Huang et al.[18]	38.5/3.6	-	30.8/3.6	84.6/3.6
Javanian et al.[19]	100/0	-	-	-
Ji et al.[20]	-	-	-	-
Khamis et al.[21]	-	-	-	-
Li et al. (1)[22]	-	-	-	-
Li et al. (2)[23]	-	-	-	-
Li et al. (3)[24]	100/0	-	-	-
Li et al. (4)[25]	100/0	-	54.9/4.4	87.7/2.8
Li et al. (5)[26]	100/0	-	-	-
Liu et al. (1)[27]	-	-	-	-
Liu et al. (2)[28]	-	-	-	-
Liu et al. (3)[29]	100/0	-	-	-
Lu et al.[30]	-	-	-	-
Lv et al.[31]	8.3/0	-	-	-
Ma et al.[32]	-	-	75/32.8	-
Masetti et al.[33]	100/0	-	-	-
Mao et al.[34]	-	5/1	-	-
Middeldorp et al.[35]	-	-	-	-
Ortiz-Brizuela et al.[36]	-	-	-	-
Pan et al.[37]	100/0	-	-	-
Qian et al.[38]	-	-	-	-
Qin et al. [39]	-	-	-	-

Rastad et al.[40]	100/0	-	-	-
Ruan et al. [41]	100/0	-	-	-
Salacup et al.[42]	100/0	-	-	73.1/8.4
Satici et al.[43]	100/0	-	-	-
Shahriarirad et al.[44]	45.5/3.9	-	-	-
Shi et al.[45]	100/0	-	-	-
Sun et al.[46]	-	-	-	-
Tang et al. (1)[47]	100/0	-	-	-
Tang et al. (2)[48]	100/0	-	-	-
Tian et al.[49]	-	-	-	-
Vultaggio et al.[50]	-	-	-	-
Wan et al.[51]	2.5/0	-	5/8.4	50/1.1
Wang et al. (1)[52]	16.7/0	-	22.2/2	61.1/4.9
Wang et al. (2)[53]	100/0	-	42.1/4.5	89.5/12.5
Wang et al. (3)[54]	-	-	-	-
Wang et al. (4)[55]	-	-	-	-
Wang et al. (5)[56]	14.3/0	-	-	-
Wang et al. (6)[57]	-	-	-	-
Wu et al. (1)[58]	52.4/0	-	-	100/0
Yan et al.[59]	100/0	-	-	-
Yang et al. (1)[60]	100/0	-	-	-
Yang et al. (2)[61]	54.5/4.9	-	24.2/2.9	51.5/4.9
Yang et al. (3)[62]	-	-	-	-
Yang et al. (4)[63]	100/0	-	-	-
Ye et al.[64]β	100/0	-	-	46.2/3.7
Zeng et al.[65]	-	-	-	-
Zhang et al. (1)[66]	-	-	-	-
Zhang et al. (2)[67]	-	-	-	-
Zhang et al. (3)[68]	-	-	-	-
Zhang et al. (4)[69]	100/0	-	-	-
Zhang et al. (5)[70]	-	-	-	-
Zheng et al.[71]	-	-	-	-
Zhou et al. (1)[72]	100/0	-	59.3/0.7	92.6/6.6
Zhou et al. (2)[73]	-	-	-	-
Zhu et al. (1)[74]	-	-	-	-
Zhu et al. (2)[75]	100/0	-	-	-

6. **Table 5**. Meta-analyses comparing Chinese to non-Chinese studies (data presented as severe / non-survivor vs. non-severe / survivor)

	Chinese studies (n=60; 11,673 patients)		**Non-Chinese studies (n=15; 5,379 patients)**		**European/USA studies (n=9; 1,325 patients)**	
	Percentage or Mean± St dev	**WMD ± St Error**	**Percentage or Mean± St dev**	**WMD ± St Error**	**Percentage or Mean± St dev**	**WMD ± St Error**
Age	63.9±7.3 vs. 51.2±9.5 (n=10,678)	11.38±1, I^2=88.87%, **p<0.001**	66.7±7.9 vs. 57.6±5.1 (n=5,266)	8.49±1.22, I^2=42.88%, **p<0.001**	69.9±5.5 vs. 60.5±2.1 (n=1,325)	8.30±1.60, I^2=53.81%, **p<0.001**
Men	64.2% vs. 52%	-	63.9% vs. 68.2%	-	61.9% vs. 75%	-
Hypertension	42.6% vs. 19.6%	-	50.7% vs. 47.3%	-	58.3% vs. 71.7%	-
Diabetes	25.9% vs. 14.4%	-	35.2% vs. 27.4%	-	32.5% vs. 35.8%	-
Cardiac or cerebrovascular disease	22% vs. 6.4%	-	29.5% vs. 14.5%	-	40.8% vs. 25.4%	-
Chronic kidney disease	5.9% vs. 2%	-	11.9% vs. 10.2%	-	12.4% vs. 12.7%	-
Malignancy	9.8% vs. 7.8%	-	9.5% vs. 6.3%	-	10.2% vs. 8.9%	-
Chronic liver disease	4.9% vs. 3.8%	-	5.9% vs. 1.8%	-	3.8% vs. 3.2	-
Chronic Obstructive Pulmonary Disease	7.4% vs. 1.9%	-	13.2% vs. 7.7%	-	14.4% vs. 8.9%	-
Platelet count	163±29 vs. 193±30 (n=7,814)	-16.74±2.56, I^2=77.05%, **p<0.001**	202±36 vs. 211±25 (n=1,839)	2.31±6.54, I^2=72.56%, p=0.72	185±43 vs. 221±31 (n=742)	-16.68±12.47, I^2=77.09%, p=0.18
D-dimer levels (mg/dL)	2.9±3.4 vs. 0.7±0.7 (n=9.371)	0.53±0.06, I^2=84.18%, **p<0.001**	3±1.8 vs. 1.3±1.1 (n=2,001)	1.30±0.28, I^2=81.50%, **p<0.001**	2.7±1.2 vs. 1.1±0.4 (n=973)	1.21±0.36, I^2=58.70%, **p<0.001**
Prothrombin time (s)	13.8±2 vs. 12.7±1.2 (n=6,288)	0.77±0.08, I^2=35.06%, **p<0.001**	14.6±2.4 vs. 13.9±1.9	Not enough data	Not enough data	Not enough data
aPTT (s)	37±9.1 vs. 35.3±5.2 (n=5,016)	0.79±0.42, I^2=72.63%, p=0.06	34.1±3.7 vs. 33.3±3.7 (n=340)	0.96±1.43, I^2=56.88%, p=0.15	32.2±2.5 vs. 31.2±0.2	Not enough data
Fibrinogen levels (g/L)	4.2±1 vs. 3.8±1.1 (n=3,487)	0.38±0.14, I^2=62.97%, **p=0.01**	5.5±1.2 vs. 4.6±0.8 (n=1,133)	0.67±0.35, I^2=44.04%, p=0.06	5.5±0.2 vs. 5±0.7	Not enough data
C-reactive protein (CRP) (mg/L)	67±32.3 vs. 19.5±15.6 (n=9,061)	39.20±3.81, I^2=84.78%, **p<0.001**	85.9±57 vs. 35.8±24.6 (n=5,025)	26.91±4.67, I^2=85.42%, **p<0.001**	90.2±62.2 vs. 43.5±31.1 (n=971)	30.22±7.13, I^2=88.83%, **p<0.001**
hs-CRP (mg/L)	96.6±24.9 vs. 22.9±6.5 (n=636)	62.68±8.88, I^2=0%, **p<0.001**	Not enough data	Not enough data	Not enough data	Not enough data
Interleukin-6 (pg/L)	46.7±35.3 vs. 10.6±9.5 (n=4,070)	20.53±2.44, I^2=89.35%, **p<0.001**	78.8±35.6 vs. 33.7±25.5	Not enough data	78.8±33.7 vs. 33.7±25.5	Not enough data
Ferritin (ng/mL)	1238±336 vs. 576±275 (n=2,834)	508.18±109.27, I^2=60.49%, **p<0.001**	1582±1171 vs. 734±397 (n=1,499)	516.68±115.87, I^2=42.36%, **p<0.001**	1325±37 vs. 646±63 (n=615)	679.94±132.56, I^2=0%, **p<0.001**

hs-Troponin I (pg/mL)	38.9±57.3 vs. 5.8±4 (n=2,410)	10.51±2.05, I^2=90.03%, **p<0.001**	23.7±20.6 vs. 5.3±2.4 (n=965)	12.35±5.29, I^2=74.21%, p=0.02	Not enough data	Not enough data
LDH (U/L)	437±157 vs. 254±60 (n=5,609)	152.64±23.24, I^2=88.89%, **p<0.001**	508±49 vs. 336±69 (n=3,546)	162.24±21.68, I^2=0%, **p<0.001**	516±8 vs. 338±31	Not enough data