

Table S2 The Extracted Determinants

Gender

Gender	OR	95%CI	
		Lower	Higher
Liu 2020-disease progression (Female reference)	1.914	0.512	7.156
Xu 2020-severity (Female reference)	1.503	1.064	2.124
Zhang 2020-severe (Female reference)	1.6	1.1	2.3
Wang 2020-severe/ (Female reference)	3.953	1.346	11.610
Zhou 2020-patients (Female reference)	1.55	1.38	1.74
Lian 2020-severe (Male reference)	0.332	0.150	0.739
Bi 2020-severe (female reference)	1.30	0.82	2.07
Hu2020-acquiring and transmitting (female reference)	1.02	0.74	1.40
Zhou2020-severe (female reference)	2.318	0.979	5.491
Cen 2020-progression (female reference)	1.722	1.359	2.183
Hu 2020-severe (male reference)	0.605	0.282	1.298
Cheng 2020-critical (male reference)	1.19	0.65	2.24
Wang 2020-severe (female reference)	2.38	1.37	4.11

Age

Age	Variable value	OR	95%CI	
			Lower	Higher
Liu 2020-disease progression (<60 years reference)		10.575	2.095	53.386
Xu 2020-severity (<40 reference =	40–69	2.978	1.722	5.150
	≥70	8.492	4.548	15.857
Hu 2020- disease severity (years)		1.03	1.01	1.06

Liu 2020- severe (years)	-	1.07	1.05	1.09
Zhang 2020-severe (≤18 reference)	≥ 66	111.8	38.7	323.2
	41–65	29.0	11.2	74.0
	19–40	16.4	6.3	42.3
Wang 2020-severe (<60 reference=	≥60	1.078	0.378	11.610
Zhou 2020-patients (≤19 reference)	20-29	1.59	1.21	2.08
	30-39	1.51	1.18	1.93
	40-49	1.04	0.81	1.33
	50-59	0.76	0.59	0.97
	≥60	0.48	0.37	0.62
Bi 2020-severe (50–59 years)	0–9 years	0.88	0.30	2.77
	10–19 years	1.08	0.28	5.27
	20–29 years	0.65	0.28	1.56
	30–39 years	1.17	0.58	2.37
	40–49 years	1.27	0.58	2.83
	60–69 years	1.50	0.72	3.16
	≥70 years	1.41	0.45	5.43
Hu2020-acquiring and transmitting (15-64 reference)	0-14	0.25	0.04	1.75
	65+	0.64	0.26	1.59
Zhou2020-severe (year)		1.066	1.007	1.129
Hu 2020-outcomes (<65 reference=		3.546	1.626	7.733
Cen 2020-progression (<65 reference=		4.308	3.364	5.516
He 2020-severe (years)		1.063	1.033	1.095
Wei 2020-severe (years)		1.038	1.009	1.068
Li 2020-severe (<65 reference=		2.25	1.46	3.47
Cheng 2020-critical (years)		2.03	1.61	2.62
Shao 2020-severe (years)		1.055	1.024	1.086
Wang 2020-progression (≤40 reference)	>40	7.39	3.52	15.53

History of smoking (Never smoking reference)

History of smoking	OR	95%CI	
		Lower	Higher

Liu 2020-disease progression	12.187	1.762	84.306
Xu 2020-severity	0.671	0.336	1.340
Xu 2020-severity	0.697	0.221	2.200
Zhang 2020-severe	1.5	0.7	3.1
Huang 2020-illness	3.185	1.600	6.343
Hu 2020-outcomes	3.464	1.18	10.166
Cen 2020-progression	0.511	0.317	0.823
Gao 2020- occurrence	0.83	0.46	1.52

Secondhand smoking exposure > 1h per day

Secondhand smoking exposure (> 1h per day)	OR	95%CI	
		Lower	Higher
Gao 2020- occurrence (≤1h per day reference)	0.66	0.30	1.20

Low-dose alcohol intake

Low-dose alcohol intake	OR	95%CI	
		Lower	Higher
Gao 2020- occurrence (high-dose reference)	0.37	0.17	0.81

Fruits intake daily

Fruits intake daily	OR	95%CI	
		Lower	Higher
Gao 2020- occurrence	0.20	0.12	0.36

Regular diets (No Regular diets reference)

Regular diets	OR	95%CI	
		Lower	Higher
Gao 2020- occurrence	0.32	0.17	0.60

BMI

BMI	Variable value	OR	95%CI	
			Lower	Higher
Cai2020-sever (18.5-23.9 reference)	24–27.9	1.78	1.00	3.21
	>28	3.35	1.47	7.63

Regular Exercise

Regular Exercise	OR	95%CI	
		Lower	Higher
Huang2020-illness (Yes reference)	2.929	1.425	6.022
Gao2020-severe (Physical activities > 5 times a week)	2.45	1.53	3.93

Lunch break daily (No lunch break)

Lunch break daily	OR	95%CI
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		Lower	Higher
Gao2020-severe	0.55	0.33	0.90

Family cluster (No family cluster)

Family cluster	OR	95%CI	
		Lower	Higher
Zhang 2020-severe	0.5	0.3	0.8
Wang 2020-severe	0.390	0.133	1.146

Cluster case (Not cluster case)

Cluster case	OR	95%CI	
		Lower	Higher
Gao 2020-severe	1.932	0.622	6.003

City of residence at the time of diagnosis

City of residence at the time of diagnosis	OR	95%CI	
		Lower	Higher
Zhou 2020-patients (other city reference)	1.19	1.03	1.39

Type of contact

Type of contact	Variable value	OR	95%CI	
			Lower	Higher
Hu2020-acquiring and transmitting (household contacts reference)	Relative contacts	0.11	0.07	0.17
	Social contacts	0.06	0.03	0.11
	Other contacts	0.07	0.04	0.13

MET (metabolic equivalent of task) intensity classification

MET (metabolic equivalent of task) intensity classification	Variable value	OR	95%CI	
			Lower	Higher
Huang 2020-illness (high reference)	moderate	0.213	0.119	0.382
	low	0.069	0.026	0.186

Residence

Residence	OR	95%CI	
		Lower	Higher
Zhou 2020-patients (local reference)	0.890	0.657	1.231
Huang 2020-illness (other place reference)	19.168	2.044	179.792

Generation of COVID-19 transmission

Generation of COVID-19	Variable value	OR	95%CI	
			Lower	Higher

transmission				
Hu2020-acquiring and transmitting (G1 reference)	G2	0.13	0.06	0.31
	G3-4	0.05	0.02	0.19
	Multiple exposure	0.10	0.03	0.41
	Unknown	0.03	0.01	0.10

Infector's contacts

Infector's contacts	OR	95%CI	
		Lower	Higher
Hu2020-acquiring and transmitting (number)	0.99	0.97	1.00

Symptomatic (No Symptomatic reference)

Symptomatic	OR	95%CI	
		Lower	Higher
Bi 2020-severe	0.51	0.15	1.39

Surveillance method

Surveillance method	OR	95%CI	
		Lower	Higher
Bi 2020-severe	0.67	0.37	1.17

Any other coexisting disorder (No any other coexisting disorder)

Any other coexisting disorder	OR	95%CI	
		Lower	Higher
Zhang 2020-severe	3.8	2.5	5.9
Lian 2020-severe	3.066	1.454	6.465
Huang 2020-illness	7.552	3.458	16.495
Wei 2020-severe	3.121	1.369	7.112
Shao 2020-severe	3.625	1.602	8.201
Wang 2020-progression	2.86	1.87	4.38

Radiology manifestation (No radiology manifestation)

Radiology manifestation	OR	95%CI	
		Lower	Higher
Wang 2020-progression	5.38	1.89	15.35

Hypertension (No hypertension reference)

Hypertension	Variable value	OR	95%CI	
			Lower	Higher
Liu 2020-disease progression		2.259	0.394	12.958
Xu 2020-severity		4.493	3.155	6.399
Hu 2020- disease severity	poor	2.77	1.17	6.54
Liu 2020-sever		2.87	1.59	5.18

Zhang 2020-severe		4.9	3.0	7.8
Cen 2020-progression		2.540	2.011	3.209
Hu 2020-severe		2.739	1.272	5.898
Li 2020-severe		2.01	1.27	3.17
Cheng 2020-critical		3.84	1.92	7.64
Shao 2020-severe		3.250	1.293	8.169

Hypnotics

Hypnotics	OR	95%CI	
		Lower	Higher
Hu 2020-outcomes	0.082	0.025	0.274

Diagnosis at critical status

Diagnosis at critical status	OR	95%CI	
		Lower	Higher
Hu 2020-outcomes	7.390	2.056	26.569

Poor appetite (good appetite reference)

Poor appetite	OR	95%CI	
		Lower	Higher
Hu 2020- disease severity	3.16	1.22	8.17

Cardiovascular disease (No cardiovascular disease reference)

Cardiovascular disease	OR	95%CI	
		Lower	Higher
Xu 2020-severity	1.124	0.574	2.199
Zhang 2020-severe	2.5	0.6	10.1
Xu 2020-severity	1.159	0.458	2.931
Cen 2020-progression	2.410	1.408	4.124
He 2020-severe	2.686	1.248	5.780
Cheng 2020-critical	6.39	1.76	25.87

Hepatitis B infection (No Hepatitis B infection)

Hepatitis B infection	OR	95%CI	
		Lower	Higher
Cen 2020-progression	0.333	0.047	2.377

Diabetes (No diabetes reference)

Diabetes	OR	95%CI	
		Lower	Higher
Liu 2020-disease progression	4.741	0.695	32.350
Xu 2020-severity	2.164	1.363	3.437
Liu 2020-sever	3.28	1.52	7.07
Zhang 2020-severe	2.4	1.2	4.6
Hu 2020-outcomes	3.109	1.155	8.373
Cen 2020-progression	2.920	2.224	3.835

Wei 2020-severe	10.120	2.742	37.347
Cheng 2020-critical	3.53	1.28	9.493

COPD (No COPD reference)

COPD	OR	95%CI	
		Lower	Higher
Xu 2020-severity	1.107	0.327	3.747
Zhang 2020-severe	42.0	4.9	363.9
Hu 2020-severe	6.296	1.007	39.354
Cen 2020-progression	3.582	2.478	5.178
Cheng 2020-critical	1.29	0.19	5.81
Gao 2020-severe	0.651	0.149	2.843

Fever (No fever reference)

Fever	OR	95%CI	
		Lower	Higher
Xu 2020-severity	1.042	0.653	1.662
Liu 2020-severe	2.42	1.26	4.64
Zhang 2020-severe	4.3	2.6	7.1
Wang 2020-severe	2.923	0.358	23.887
Zhou 2020-patients	0.92	0.78	1.08
Bi 2020-severe	0.94	0.49	1.75
Zhou2020-severe	9.127	1.176	70.816
He 2020-severe	4.345	1.282	14.730

Duration of fever (days)

Duration of fever (days)	OR	95%CI	
		Lower	Higher
Shao 2020-severe	0.73	0.56	0.96

Cold (No cold reference)

Cold	OR	95%CI	
		Lower	Higher
Zhou 2020-patients	0.73	0.56	0.96

Chest congestion (No Chest congestion)

Chest congestion	OR	95%CI	
		Lower	Higher
Zhao 2020-severe	1.548	0.644	3.723

Cough (No cough reference)

Cough	OR	95%CI	
		Lower	Higher
Liu 2020-disease progression	1.063	0.295	3.834
Xu 2020-severity	1.039	0.726	1.487
Liu 2020-severe	1.91	1.10	3.33

Zhang 2020-severe	2.7	1.8	4.1
Wang 2020-severe	1.246	0.402	3.862
Zhou 2020-patients	0.96	0.83	1.11
Lian 2020-severe	2.600	1.013	6.671
Zhou2020-severe	0.559	0.237	1.318

Expectoration (No Expectoration)

Expectoration	OR	95%CI	
		Lower	Higher
Zhou2020-severe	1.483	0.590	3.727

Cancer (No cancer reference)

Cancer	OR	95%CI	
		Lower	Higher
Zhang 2020-severe	7.3	1.5	35.2
Xu 2020-severity	2.198	0.963	5.019
Cheng 2020-critical	12.18	1.52	249.22

Chronic liver disease (No Chronic liver disease reference)

Chronic liver disease	OR	95%CI	
		Lower	Higher
Zhang 2020-severe	1.6	0.6	3.9
Cheng 2020-critical	4.02	0.73	22.30

Chronic kidney disease (No Chronic kidney disease reference)

Chronic liver disease	OR	95%CI	
		Lower	Higher
He 2020-severe	9.769	2.307	41.376

Chronic renal disease (No Chronic renal disease reference)

Chronic renal disease	OR	95%CI	
		Lower	Higher
Zhang 2020-severe	4.3	0.9	20.6
Cen 2020-progression	3.057	1.513	6.174

Coronary artery disease (No Coronary artery disease)

Coronary artery disease	OR	95%CI	
		Lower	Higher
Cen 2020-progression	2.459	1.719	3.520

Single onset (No single onset)

Single onset	OR	95%CI	
		Lower	Higher
Liu 2020-sever	1.80	1.05	3.06

Temperature (°C)

Temperature	OR	95%CI	
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		Lower	Higher
Liu 2020-sever	1.59	1.15	2.19
Zhou2020-sever	1.685	1.028	2.763

Maximum body temperature at admission

Maximum body temperature at admission	OR	95%CI	
		Lower	Higher
Liu 2020-disease progression (<37.3°C reference)	9.709	1.176	83.330

Sputum production (No sputum production reference)

Sputum production	OR	95%CI	
		Lower	Higher
Xu 2020-severity	0.840	0.577	1.222
Liu 2020-severe	1.91	1.12	3.27
Zhang 2020-severe	2.2	1.5	3.4
Zhou2020-severe	1.483	0.590	3.727

Bilateral pneumonia

Sputum production	OR	95%CI	
		Lower	Higher
He 2020-severe	6.292	0.836	47.378

Chest pain (No Chest pain reference)

Chest pain	OR	95%CI	
		Lower	Higher
Xu 2020-severity	1.080	0.495	2.356
Zhao 2020-severe	0.354	0.043	2.921

Fingertip oxygen saturation

Fingertip oxygen saturation	OR	95%CI	
		Lower	Higher
Wei 2020-severe	0.517	0.405	0.661

SOFA score

SOFA score	Variable value	OR	95%CI	
			Lower	Higher
Cheng 2020-critical (0 reference)	1	N/A	N/A	N/A
	2	14.68	3.43	102.01
	3	36.64	8.66	256.66
	4	108.50	16.22	1247.72
	5	403.00	49.95	9761.98
	6	N/A	N/A	N/A
	7	N/A	N/A	N/A

Hemoptysis (No Hemoptysis reference)

Hemoptysis	OR	95%CI	
		Lower	Higher
Zhang 2020-severe	7.7	2.8	21.3

Sore throat (No sore throat reference)

Sore throat	OR	95%CI	
		Lower	Higher
Liu 2020-sever	0.8	0.4	1.3
Zhou 2020-paients	1.11	0.84	1.48
Zhou2020-severe	1.147	0.288	4.560
Xu 2020-severity	0.400	0.170	0.940

Nasal obstruction (No nasal obstruction reference)

Nasal obstruction	OR	95%CI	
		Lower	Higher
Zhang 2020-severe	0.3	0.2	0.7

Fatigue (No fatigue reference)

Fatigue	OR	95%CI	
		Lower	Higher
Hu 2020- disease severity	3.04	1.43	6.45
Zhang 2020-severe	1.8	1.1	2.8
Wang 2020-sever	1.809	0.435	7.528
Zhou 2020-patients	0.82	0.63	1.07
Zhou 2020-severe	1.639	0.701	3.830
Shao 2020-severe	2.600	1.124	6.012

Gastrointestinal symptoms (No gastrointestinal symptoms reference)

Gastrointestinal symptoms	OR	95%CI	
		Lower	Higher
Zhang 2020-severe	2.1	1.2	3.6
Zhou 2020-patients	1.11	0.76	1.63
Lian 2020-severe	4.580	1.677	12.511
Zhou 2020-severe	1.593	0.451	5.624
He 2020-severe	8.400	2.392	29.494
Cheng 2020-critical	1.29	0.06	10.29

Poor sleep quality

Poor sleep quality	Variable value	OR	95%CI	
			Lower	Higher
Huang 2020-illness (Recommended as reference)	Maybe appropriate	6.729	2.138	21.181
	Lack of sleep	8.612	1.913	38.760
Huang 2020-illness (hour)		0.463	0.287	0.745

Gao 2020-severe (good sleep reference)		1.75	1.16	2.66
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Headache (No headache reference)

Headache	OR	95%CI	
		Lower	Higher
Zhang 2020-severe	2.0	1.1	3.6
Wang 2020-sever	0.474	0.057	3.968
Zhou 2020-patients	0.94	0.69	1.29
Zhou2020-severe	0.889	0.269	2.932

Wheeze (No Wheeze)

Wheeze	OR	95%CI	
		Lower	Higher
Zhou 2020-severe	1.167	0.413	3.295

Anorexia

Anorexia	OR	95%CI	
		Lower	Higher
Zhou 2020-severe	4.500	1.742	11.622
He 2020-severe	2.682	0.991	7.258

Muscle or joint pain (No Muscle or joint pain reference)

Muscle or joint pain	OR	95%CI	
		Lower	Higher
Zhou 2020-patients	0.77	0.53	1.12
Lian 2020-severe	5.717	2.284	14.307
Zhou 2020-severe	0.764	0.278	2.100
Zhang 2020-severe	2.6	1.5	4.5

Dyspnea (No dyspnea reference)

Dyspnea	OR	95%CI	
		Lower	Higher
Zhou 2020-patients	0.84	0.47	1.49
Hu 2020- disease severity	12.57	5.64	28.02
Zhao2020-severe	1.385	0.254	7.556
Cheng 2020-critical	40.56	16.19	117.96
Shao 2020-severe	153.00	31.399	745.529
Liu 2020-disease progression	8.021	2.022	31.821
Xu 2020-severity	3.112	2.148	4.507
Hu 2020- disease severity	12.57	5.64	28.02
Wei 2020-severe	6.910	2.837	16.831

Clear Epidemiological contact history (Unclear epidemiological contact history reference)

Clear Epidemiological contact history	OR	95%CI	
		Lower	Higher

Zhou 2020-patients	0.38	0.34	0.43
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Clear family-confirmed patient contact history (Unclear family-confirmed patient contact history reference)

Clear family-confirmed patient contact history	OR	95%CI	
		Lower	Higher
Zhou 2020-patients	0.56	0.49	0.63
Bi 2020-severe	15.10	3.69	61.69

Clear Non-family-confirmed patient contact history (Unclear non-family-confirmed patient contact history reference)

Clear Non-family-confirmed patient contact history	OR	95%CI	
		Lower	Higher
Zhou 2020-patients	0.26	0.22	0.31

Clear travel-confirmed patient contact history (Unclear travel-confirmed patient contact history reference)

Clear travel –confirmed patient contact history	OR	95%CI	
		Lower	Higher
Bi 2020-severe	9.13	1.85	45.08

Clear meal-confirmed patient contact history (Unclear meal-confirmed patient contact history reference)

Clear meal-confirmed patient contact history	OR	95%CI	
		Lower	Higher
Bi 2020-severe	23.01	2.51	211.2

Contact frequency

Contact frequency	Variable value	OR	95%CI	
			Lower	Higher
Bi 2020-severe (moderate reference)	Rare	<0.0001	0	inf
	often	8.8	2.58	30.06

CRP

CRP	Variable value	OR	95%CI	
			Lower	Higher
Xu 2020-severity (<5 mg/L reference =	>100	6.126	3.400	11.039
	5–100	1.722	1.053	2.816
Hu 2020- disease severity (≤10 mg/L reference)		3.28	1.35	8.01
Zhou 2020-severe (mg/L)		1.199	1.046	1.375
He 2020-severe (≤10 mg/L reference)		7.596	2.995	19.264
Wei 2020-severe (mg/L)		1.019	1.008	1.030

Cheng 2020-critical (mg/L)		2.02	1.04	4.09dey
Shao 2020-severe (mg/L)		1.031	1.014	1.049
Wang 2020-progression		1.04	1.02	1.05
Liu 2020-disease progression (≤8.2 mg/L reference)		5.988	1.179	30.300
Sun 2020-disease severity (mg/L)		1.073	1.013	1.136
Liu 2020-severe (mg/L)		1.02	1.01	1.02
Lian 2020-severe (mg/L)		1.016	1.003	1.029

Early administration Preadmission drugs of antiviral (No early administration of antiviral)

Early administration of antiviral	OR	95%CI	
		Lower	Higher
Xu 2020-severity	1.592	1.138	2.227

Interval between illness onset and diagnosis (days)

Interval between illness onset and diagnosis	OR	95%CI	
		Lower	Higher
Xu 2020-severity	1.082	1.048	1.116

Days from diseases onset to improvement (days)

Days from diseases onset to improvement (days)	OR	95%CI	
		Lower	Higher
Shao 2020-severe	1.100	1.035	1.169

Lactate dehydrogenase (U/L)

Lactate dehydrogenase (U/L)	Variable value	OR	95%CI	
			Lower	Higher
Cheng 2020-critical (91-230 U/L reference)	<91	0.34	0.012	1.84
	>230	2.04	0.98	4.22
Li 2020-severe (≤445 U/L reference)	4.42	2.57	7.60	

Interval between illness onset and admission (Days)

Interval between illness onset and admission	OR	95%CI	
		Lower	Higher
Xu 2020-severity	1.116	1.083	1.150
Zhang 2020-severe	1.1	1.0	1.2

Hang hygiene

Hang hygiene	OR	95%CI
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		Lower	Higher
Gao 2020-severe	0.38	0.23	0.63

Living alone

Living alone	OR	95%CI	
		Lower	Higher
Gao 2020-severe	0.89	0.39	2.04

Spicy food intake > 3 times a week

Spicy food intake > 3 times a week	OR	95%CI	
		Lower	Higher
Gao 2020-severe	1.62	0.95	2.76

Playing Mahjong > once a week

Playing Mahjong > once a week	OR	95%CI	
		Lower	Higher
Gao 2020-severe	1.00	0.60	1.66

Cooking by oneself > 5 times a week

Cooking by oneself > 5 times a week	OR	95%CI	
		Lower	Higher
Gao 2020-severe	0.65	0.39	1.09

Alopecia

Alopecia	OR	95%CI	
		Lower	Higher
Gao 2020-severe	3.63	1.90	6.92

Constipation

Constipation	OR	95%CI	
		Lower	Higher
Gao 2020-severe	1.07	0.57	2.02

Common cold >3 times a year

Common cold > 3 times a year	OR	95%CI	
		Lower	Higher
Gao 2020-severe	1.06	0.46	2.47

Exposure history (No exposure history reference)

Exposure history	OR	95%CI	
		Lower	Higher
Hu 2020- disease severity	0.91	0.39	2.14
Zhang 2020-severe	1.1	0.8	1.6
Wang 2020-severe	4.260	1.517	11.962
Hu 2020-COVID19	5.01	0.63	39.92
He 2020-severe	2.607	1.174	5.791
Wang 2020-severe	0.249	0.14	0.44

Incubation period

Incubation period (days)	OR	95%CI	
		Lower	Higher
Gao 2020-severe	1.01	0.95	1.07

Anti-viral drug (No Anti-viral drug reference)

Anti-viral drug	OR	95%CI	
		Lower	Higher
Cen 2020-progression	4.292	2.695	6.837

Duration of anti-viral therapy

Duration of anti-viral therapy	OR	95%CI	
		Lower	Higher
Cen 2020-progression	4.689	3.463	6.349

Respiratory rate

Respiratory rate	OR	95%CI	
		Lower	Higher
Liu 2020-disease progression (≤20 breaths/min reference)	3.952	0.473	33.333
He 2020-severe (≤24 breaths/min reference)	9.769	2.307	41.376
Cheng 2020-critical	15.63	6.34	42.77
Shao 2020-severe	1.412	1.237	1.611
Wang2020-progression	1.06	0.92	1.21

Preadmission drugs

Preadmission drugs	OR	95%CI	
		Lower	Higher
Zhou 2020-severe	0.651	0.267	1.589

Blood oxygen saturation

Blood oxygen saturation	OR	95%CI	
		Lower	Higher
Liu 2020-disease progression (>93% as reference)	2.259	0.394	12.958

Heart rate

Heart rate	OR	95%CI	
		Lower	Higher
Liu 2020-disease progression (<100 beats/min reference =	2.259	0.394	12.958

Severe illness (no severe illness reference)

Severe illness	OR	95%CI	
		Lower	Higher
Liu 2020-disease progression	4.651	0.930	23.250

D-dimer

D-dimer	Variable value	OR	95%CI	
			Lower	Higher
Liu 2020-disease progression (≤1 mg/ML reference)		1.799	0.363	8.928
Xu 2020-severity (≤0.5 mg/L reference)		3.548	2.414	5.214
Sun 2020- disease severity (mg/L)		5.313	0.325	86.816
Hu 2020- disease severity (≤0.5 mg/L reference)		2.69	1.23	5.90
Liu 2020-severe (mg/L)		1.28	1.06	1.55
Zhou 2020-severe (mg/L)		0.748	0.419	1.336
He 2020-severe (≤ 1000 mg/L)	> 1000	1.947	0.859	4.416
Li 2020-severe (≤1 mg/ML reference)		2.18	1.42	3.34
Cheng 2020-critical (mg/L)		2.52	1.29	4.96
Wang 2020-PROGRESSION		1.78	1.02	3.09

Prothrombin time (PT)

Prothrombin time (PT)	OR	95%CI	
		Lower	Higher
Zhou 2020-severe (seconds)	0.871	0.700	1.085

International normalized ratio (INR)

International normalized ratio (INR)	OR	95%CI	
		Lower	Higher
Zhou 2020-severe (%)	0.468	0.031	7.142

Ferritin

Ferritin	OR	95%CI	
		Lower	Higher
Gao 2020-progression	1.00	1.00	1.001

Albumin

Albumin	OR	95%CI	
		Lower	Higher
Liu 2020-disease progression (≥40 g/L reference)	12.536	2.409	65.233
Xu 2020-severity (≥40 g/L reference)	5.734	3.532	9.306
Hu 2020- disease severity (≥35 g/L reference)	9.86	4.25	22.89
Liu 2020-sever (g/L)	0.91	0.87	0.96
Lian 2020-severe (g/L)	0.850	0.774	0.933
Zhou2020-severe (g/L)	0.905	0.820	0.998
Wei 2020-severe (g/L)	0.789	0.697	0.894
Shao 2020-severe (g/L)	0.829	0.774	0.887

Quadrant score

Quadrant score	OR	95%CI	
		Lower	Higher
Liu 2020-sever (1–4)	2.28	1.71	3.05

RBC (red blood cell)

RBC (red blood cell) ×10 ¹² /L	OR	95%CI	
		Lower	Higher
Zhou2020-severe	1.661	0.750	3.681
Shao 2020-severe	0.506	0.337	0.759

WBC

WBC	Variable value	OR	95%CI	
			Lower	Higher
Liu 2020-disease progression (<4×10 ⁹ /L reference)		1.488	0.163	2.770
Xu 2020-severity (<4×10 ⁹ /L reference)	4–10	1.204	0.735	1.973
	>10	3.416	1.834	6.360

Hu 2020- disease severity ($\leq 10 \times 10^9/\text{L}$ reference)		10.75	2.56	42.21
Zhou 2020-severe ($10^9/\text{L}$)		0.829	0.653	1.052

Haemoglobin

Haemoglobin	OR	95%CI	
		Lower	Higher
Xu 2020-severity ($\geq 130 \text{ g/l}$ reference)	1.545	1.104	2.162

Blood urea nitrogen (mmol/l)

Blood urea nitrogen	OR	95%CI	
		Lower	Higher
Xu 2020-severity (≤ 9.5 reference)	3.257	1.811	5.860
Zhou 2020-severity (≤ 9.5 reference)	1.020	0.954	1.092

Lymphocytes

Lymphocytes	Variable value	OR	95%CI	
			Lower	Higher
Liu 2020-disease progression ($\geq 1.1 \times 10^9/\text{L}$ reference)		1.600	0.167	2.336
Xu 2020-severity ($\geq 1.1 \times 10^9/\text{L}$ reference)	<0.5	2.684	1.508	4.776
	0.5–1.1	1.567	1.096	2.239
Sun 2020-diseases severity ($10^9/\text{L}$)		0.989	0.979	1.000
Hu 2020- disease severity ($\geq 0.8 \times 10^9/\text{L}$ reference)		4.30	0.25	9.02
Liu 2020-sever ($10^9/\text{L}$)		0.03	0.01	0.08
Lian 2020-severe ($10^9/\text{L}$)		0.236	0.087	0.641
Zhou 2020-severe ($10^9/\text{L}$)		0.084	0.025	0.280
He 2020-severe ($\geq 1.1 \times 10^9/\text{L}$ reference)		0.263	0.121	0.573
Wei 2020-severe ($10^9/\text{L}$)		0.284	0.099	0.815
Cheng 2020-critical ($1.1\text{--}3.2 \times 10^9/\text{L}$ reference)	<1.1	3.68	1.83	7.94
	>3.2	4.18	0.19	42.28
Wang 2020-progression		0.996	0.994	0.997

Hypersensitive troponin

Hypersensitive troponin	OR	95%CI	
		Lower	Higher
Hu 2020-outcomes (≤ 0.04 gp/MI reference)	4.388	1.261	15.271
Wang 2020-progression	0.92	0.60	1.51

Hemoglobin

Hemoglobin	OR	95%CI	
		Lower	Higher
He 2020-severe (g/L reference)	0.966	0.946	0.986
Shao 2020-severe (g/L reference)	0.960	0.940	0.980

Neutrophils

Neutrophils	Variable value	OR	95%CI	
			Lower	Higher
Liu 2020-disease progression ($<1.8 \times 10^9$ /L reference)		2.037	0.236	17.544
Xu 2020-severity ($<1.8 \times 10^9$ /L reference =	>6.3	3.887	1.601	9.442
	1.8–6.3	1.516	0.650	3.536
Hu 2020- disease severity (10^9 /L)		1.30	1.06	1.59
Zhou 2020-severe (10^9 /L)		1.006	0.810	1.249
Hu 2020-outcomes ($\leq 75 \times 10^9$ /L)		5.929	2.299	15.290
Cheng 2020-critical ($1.8-6.3 \times 10^9$ /L reference)	<1.8	1.00	0.35	2.49
	>6.3	5.13	2.33	11.44
Shao 2020-severe (10^9 /L)		1.443	1.201	1.733

Platelets

Platelets	Variable value	OR	95%CI	
			Lower	Higher
Liu 2020-disease progression ($\geq 100 \times 10^9$ /L reference)		2.259	0.394	12.958
Xu 2020-severity ($<125 \times 10^9$ /L reference =	125–350	1.370	0.802	2.341
	>350	3.666	1.612	8.335
Liu 2020-sever (10^9 /L)		0.99	0.98	0.99
Zhou 2020-severe (10^9 /L)		0.991	0.983	0.999

He 2020-severe (10 ⁹ /L)		0.993	0.987	1.000
Cheng 2020-critical (125-130×10 ⁹ /L)	<125	1.18	0.49	2.62
	>350	3.68	0.66	20.52

PT

PT	OR	95%CI	
		Lower	Higher
Hu 2020- disease severity (seconds)	1.32	1.02	1.72

Monocyte count

Monocyte count	Variable value	OR	95%CI	
			Lower	Higher
Cheng 2020-critical (0.1-0.6×10 ⁹ /L)	<0.1	3.69	0.14	94.79
	>0.6	1.53	0.69	3.21

ALT

ALT	OR	95%CI	
		Lower	Higher
Liu 2020-disease progression (≤50 U/L reference)	1.032	0.231	2.148
Xu 2020-severity (≤50 U/L reference)	3.783	2.593	5.521
Hu 2020- disease severity (≤40 U/L reference)	3.39	1.49	7.70
Zhou 2020-severe (≤50 U/L reference)	0.999	0.989	1.008
He 2020-severe (≤50 U/L reference)	2.604	1.022	6.634
Cheng 2020-critical (U/L)	2.30	1.09	4.70

AST

AST (>40 vs.)	OR	95%CI	
		Lower	Higher
Liu 2020-disease progression (≤40 U/L reference)	2.088	0.443	9.901
Xu 2020-severity (≤40 U/L reference)	3.410	2.388	4.871
Hu 2020- disease severity (≤40 U/L reference)	3.32	1.38	7.99
Zhou2020- severity (≤40 U/L reference)	1.005	0.989	1.021

He 2020- severe (≤ 40 U/L reference)	3.545	1.425	8.823
Cheng 2020-critical (U/L)	2.30	1.19	4.44

NLR

NLR	Variable value	OR	95%CI	
			Lower	Higher
Cheng 2020-critical (0.78-3.53)	< 0.78	N/A	N/A	N/A
	> 3.53	3.73	1.96	7.32
Wang 2020- progression		1.44	1.23	1.68

APTT(s)

APTT	Variable value	OR	95%CI	
			Lower	Higher
Cheng 2020-critical (21-37)	< 0.78	N/A	N/A	N/A

Creatinine

Creatinine	Variable value	OR	95%CI	
			Lower	Higher
Liu 2020-disease progression (≤ 111 mmol/L reference)		6.880	1.424	32.470
Xu 2020-severity (≤ 111 mmol/L reference)		3.645	1.927	6.895
Zhou 2020-severe (≤ 111 mmol/L reference)		1.003	0.997	1.010
He 2020-severe (≤ 106 mmol/L reference)		4.667	1.104	19.728
Cheng 2020-critical (44-112 mmol/L reference)	< 44	1.27	0.26	4.77
	> 112	2.95	0.79	11.09

Total bilirubin (mmol/l)

Total bilirubin	Variable value	OR	95%CI	
			Lower	Higher
Xu 2020-severity (≤ 20.5 mmol/l)		0.547	0.277	1.079
Zhou2020-severe (≤ 20.5 mmol/l)		1.027	0.940	1.123
Cheng 2020-critical (3-21 mmol/l reference)	< 5	N/A	N/A	N/A
	> 21	5.60	2.40	13.50

Direct bilirubin (mmol/l)

Direct bilirubin	OR	95%CI
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		Lower	Higher
Xu 2020-severity (≤ 8.6 mmol/l)	1.052	0.590	1.875
Zhou2020-severe (≤ 8.6 mmol/l)	1.168	0.921	1.480

Indirect bilirubin (mmol/l)

indirect bilirubin	OR	95%CI	
		Lower	Higher
Zhou2020-severe (unknown)	1.007	0.889	1.140

Urinary glucose (Negative reference)

Urinary glucose	OR	95%CI	
		Lower	Higher
Xu 2020-severity	1.088	0.599	1.976

Urinary protein (Negative reference)

Urinary protein (positive)	OR	95%CI	
		Lower	Higher
Xu 2020-severity	1.436	0.918	2.247

Total protein

Total protein	OR	95%CI	
		Lower	Higher
Shao 2020-severe	0.926	0.889	0.964

Sodium

Sodium	OR	95%CI	
		Lower	Higher
Xu 2020-severity (≤ 147 mmol/l reference)	1.809	0.388	8.433

Potassium

Potassium (mmol/l)	Variable value	OR	95%CI	
			Lower	Higher
Xu 2020-severity (< 3.5 reference=	3.5–5.3	2.847	1.459	5.557
	> 5.3	5.164	1.664	16.020
Shao 2020-severe (mmol/L)		0.401	0.213	0.757

Calcium (mmol/l)

Calcium	OR	95%CI	
		Lower	Higher
Xu 2020-severity (< 2.55 reference=	1.279	0.525	3.120

LDH (μ /l)

LDH (μ /l)	OR	95%CI	
		Lower	Higher
Xu 2020-severity (<245 U/L reference=	3.062	2.114	4.434
Hu 2020- disease severity (≤ 250 U/L reference)	6.75	2.8	16.28
Wei 2020-severe (≤ 250 U/L reference)	1.007	1.002	1.011
Shao 2020-severe (U/L)	1.011	1.006	1.016

Erythrocyte sedimentation rate

Erythrocyte sedimentation rate	OR	95%CI	
		Lower	Higher
Liu 2020-disease progression (≤ 15 mm/1 h reference)	2.625	0.574	12.048

IL-6

IL-6	OR	95%CI	
		Lower	Higher
IL-6	1.019	1.006	1.031
Wang 2020-progression	1.05	1.03	1.07

White blood cell count

White blood cell count	Variable value	OR	95%CI	
			Lower	Higher
Hu 2020-outcomes ($< 10 \times 10^9$ per L reference=		10.853	3.040	38.748
He 2020-severe ($4-10 \times 10^9$ per L reference)	≤ 4	0.910	0.325	2.543
	≥ 10	15.553	4.032	59.988
Cheng 2020-critical ($3.5-9.5 \times 10^9$ per L referecne)	< 3.5	0.39	0.09	1.16
	> 9.5	7.94	3.19	21.188
Wang 2020- progression (10^9 per L)		0.97	0.84	1.12

CD4/8 cell count

CD4/8 cell count	OR	95%CI	
		Lower	Higher
Wei 2020-severe	0.997	0.994	1.000
Wang 2020-progression	1.02	0.68	1.52

TBIL

TBIL	OR	95%CI	
		Lower	Higher
Wang 2020-progresion	1.02	0.98	1.06

Alp

Alp	OR	95%CI	
		Lower	Higher
Wang 2020-progresion	0.99	0.98	1.00

Creatine kinase (μ /l)

Creatine kinase	OR	95%CI	
		Lower	Higher
Xu 2020-severity (≤ 200 μ /l reference)	1.811	1.211	2.708
Hu 2020- disease severity (≤ 200 μ /l reference)	4.42	1.32	14.93
Zhou 2020-severe (≤ 200 μ /l reference)	1.002	1.000	1.004
He 2020-severe (≤ 310 μ /l reference)	9.107	1.234	67.188
Cheng 2020-cirital (μ /l)	1.77	0.82	3.72

BUN

BUN	Variable value	OR	95%CI	
			Lower	Higher
Cheng 2020-critical (2.5-7.1 mmol/L reference)	<2.5	0.67	0.10	2.76
	>7.1	18.16	4.68	120.23

CK-MB (μ /l)

CK-MB	OR	95%CI	
		Lower	Higher
Xu 2020-severity (≤ 24 μ /l reference)	0.650	0.341	1.239
Hu 2020- disease severity (≤ 23 μ /l reference)	4.23	1.39	12.87
Zhou 2020-severe (≤ 24 μ /l reference)	1.010	0.928	1.101

Myohaemoglobin

Myohaemoglobin	OR	95%CI	
		Lower	Higher
Xu 2020-severity (≤ 48.8 ng/ml reference)	6.888	4.770	9.945

Myoglobin (μg/L)

Myoglobin (μg/L)	OR	95%CI	
		Lower	Higher
He 2020-severe (≤ 106 μg/L reference)	33.682	6.413	176.905

cTnI (ng/ml)

cTnI (ng/ml)	OR	95%CI	
		Lower	Higher
Xu 2020-severity (≤0.04 ng/ml reference)	13.083	4.770	9.945
He 2020-severity (≤0.04 ng/ml reference)	12.231	4.14	36.131

PCT (Procalcitonin)

PCT (μ/l)	OR	95%CI	
		Lower	Higher
Xu 2020-severity (≤0.05μ/l reference)	13.083	4.770	9.945
Liu 2020-disease progression (≤0.5 ng/ml reference)	3.831	0.551	27.027
He 2020-SEVERE (≤0.5 ng/ml reference)	5.333	1.572	18.098
Cheng 2020-critical (ng/ml)	4.40	1.77	13.36
Shao 2020-severe (ng/ml)	123.157	1.944	7800.828
Wang 2020-progression (ng/ml)	0.90	0.32	2.51

ESR

ESR	OR	95%CI	
		Lower	Higher
Xu 2020-severity (>15 mm/h reference)	1.879	1.084	3.258
Cheng 2020-critical (mm/h)	2.18	1.05	4.54
WANG 2020-progression	1.02	1.00	1.03

BNP

BNP	OR	95%CI	
		Lower	Higher
Xu 2020-severity (≤250 ng/ml)	3.900	2.479	6.136
He 2020-severe	1.022	1.005	1.040

(ng/ml)			
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Fibrinogen

Fibrinogen	Variable value	OR	95%CI	
			Lower	Higher
Xu 2020-severity (≤4 g/l reference)		1.682	1.126	2.513
Liu 2020-sever (g/L)		1.87	1.50	2.32
Zhou 2020-sever (g/L)		2.832	1.438	5.578
Wei 2020-severe (g/L)		1.669	1.190	2.341
Cheng 2020-critical (2-4 g/L reference)	<2	N/A	N/A	N/A
	>4	2.90	1.46	5.77

Partial pressure of oxygen

Partial pressure of oxygen	OR	95%CI	
		Lower	Higher
Liu 2020-disease progression (≥60% reference)	1.742	0.167	3.312

Lung imaging features

Bilateral lungs involved (No bilateral lungs involved)

Bilateral lungs involved	OR	95%CI	
		Lower	Higher
Xu 2020-severity	3.618	1.519	8.616
Hu 2020- disease severity	2.27	0.64	8.01
Zhou 2020-severe	1.524	0.586	3.961

Consolidation (No Consolidation)

Consolidation	OR	95%CI	
		Lower	Higher
Xu 2020-severity	0.319	0.201	0.704

Ground-glass opacity (No ground-glass opacity reference)

Ground-glass opacity	OR	95%CI	
		Lower	Higher
Xu 2020-severity	1.080	0.409	2.855

Linear opacity (No Linear opacity)

Linear opacity	OR	95%CI	
		Lower	Higher
Xu 2020-severity	1.685	1.015	2.798

Pulmonary opacity (No Pulmonary opacity)

Pulmonary opacity	OR	95%CI	
		Lower	Higher

Liu 2020-sever (Per 5%)	1.38	1.28	1.49
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Linear opacity (No Linear opacity)

Linear opacity	OR	95%CI	
		Lower	Higher
Xu 2020-severity	1.149	0.439	3.008

Pleural thickening (No Pleural thickening)

Pleural thickening	OR	95%CI	
		Lower	Higher
Xu 2020-severity	0.600	0.375	0.961

Lung lobes involved (No Lung lobes involved)

Lung lobes involved	OR	95%CI	
		Lower	Higher
Xu 2020-severity	1.531	1.270	1.847