## Supplemental file

# *Title*: Predictors of mortality in patients with coronavirus disease 2019:

## a systematic review and meta-analysis

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#### Notes and Abbreviations

#### Notes:

The study by Guan WJ et al. included 1590 patients from Renmin Hospital of Wuhan University, Jinyintan Hospital, Union Hospital, Central Hospital of Wuhan, Wuhan Pulmonary Hospital and other 570 hospitals in China. The study by Guan WJ et al. and the studies from the above-mentioned hospitals (e.g. the studies by Du RH et al. and Zhou F et al.) contained duplicate patients. To avoid potential patient overlap, we extracted the data only from the study by Guan WJ et al. (the larger study) for analyses if multidata were available.

#### Abbreviations:

ALT, alanine aminotransferase; APACHE II, Acute Physiology and Chronic Health Evaluation II; APTT, activated partial thromboplastin time; AST, aspartate aminotransferase; ESR, erythrocyte sedimentation rate; ECMO, extracorporeal membrane oxygenation; hs-cTnI, hypersensitive cardiac troponin I; PaCO<sub>2</sub>, partial pressure of carbon dioxide; PaO<sub>2</sub>, partial pressure of oxygen; PaO<sub>2</sub>/FiO<sub>2</sub>, ratio of partial pressure of oxygen to fraction of inspired oxygen; NT-proBNP, N-terminal pro-brain natriuretic peptide; SOFA, Sequential Organ Failure Assessment; SpO<sub>2</sub>, peripheral oxygen saturation.

a: The number of persons exposed to risk factors in nonsurvivor group.

- b: The number of persons unexposed to risk factors in nonsurvivor group.
- c: The number of persons exposed to risk factors in survivor group.
- d: The number of persons unexposed to risk factors in survivor group.

Table S1. Qu	ality Assessme	ents of the In	cluded Studies
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Study	Study	Study	Prognostic	Outcome	Study	Statistical
	participation	attrition	factor	measurement	confounding	analysis and
			measurement			reporting
Cao J et al.	Low risk	Low risk	Moderate risk	Low risk	High risk	Moderate risk
Chen R et al.	Moderate risk	Low risk	Moderate risk	Low risk	Low risk	Low risk
Chen T et al. (a)	Low risk	Low risk	Moderate risk	Low risk	Low risk	Low risk
Chen T et al. (b)	Low risk	Low risk	Moderate risk	Low risk	High risk	Moderate risk
Cheng Y et al.	Low risk	Low risk	Moderate risk	Low risk	Low risk	Low risk
Deng Y et al.	Low risk	Low risk	Moderate risk	Low risk	High risk	Moderate risk
Du RH et al.	Low risk	Low risk	Moderate risk	Low risk	Low risk	Low risk
Gao L et al.	High risk	High risk	Moderate risk	Low risk	Low risk	Low risk
Grasselli L et al.	Low risk	Low risk	Low risk	Low risk	High risk	Moderate risk
Guan WJ et al.	Low risk	Low risk	Moderate risk	Low risk	Low risk	Low risk
Guo T et al.	Low risk	Low risk	Low risk	Low risk	High risk	Moderate risk
He XW et al.	Low risk	Low risk	Low risk	Low risk	High risk	Moderate risk
Hu H et al.	Low risk	Low risk	Moderate risk	Low risk	High risk	Moderate risk
Li J et al.	High risk	High risk	Low risk	Low risk	High risk	Moderate risk
Li X et al.	Low risk	Low risk	Moderate risk	Low risk	Low risk	Low risk
Liang WH et al.	Low risk	Low risk	Moderate risk	Low risk	Low risk	Low risk
Liu Y et al. (a)	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Liu Y et al. (b)	Low risk	Low risk	Low risk	Low risk	High risk	Moderate rish
Luo M et al.	Moderate risk	Low risk	Moderate risk	Low risk	Low risk	Low risk
Miyashita H et al.	Moderate risk	Low risk	Moderate risk	Low risk	High risk	Moderate risk
Peng YD et al.	Low risk	Low risk	Moderate risk	Low risk	High risk	Moderate risk
Richardson S et al.	Low risk	Low risk	Low risk	Low risk	High risk	Moderate risk
Shi S et al.	Low risk	Low risk	Low risk	Low risk	High risk	Moderate risk
Tang N et al. (a)	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Tang N et al. (b)	Low risk	Low risk	Low risk	Low risk	High risk	Moderate risk
Wang L et al. (a)	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Wang L et al. (b)	Low risk	Low risk	Moderate risk	Low risk	Low risk	Low risk
Wu C et al.	Low risk	Low risk	Moderate risk	Low risk	High risk	Moderate risk
Xie J et al.	Low risk	Low risk	Moderate risk	Low risk	Low risk	Low risk
Xu B et al.	Low risk	Low risk	Moderate risk	Low risk	High risk	Moderate risk
Yang X et al. (a)	Moderate risk	Low risk	Moderate risk	Low risk	High risk	Moderate risk
Yang X et al. (b)	Low risk	Low risk	Moderate risk	Low risk	High risk	Moderate risk
Yao Q et al.	Low risk	Low risk	Moderate risk	Low risk	High risk	Moderate risk
Zhang J et al.	Low risk	Low risk	Moderate risk	Low risk	High risk	Moderate risk
Zhang L et al.	Low risk	Low risk	Moderate risk	Low risk	Low risk	Low risk
Zhou F et al.	Low risk	Low risk	Moderate risk	Low risk	Low risk	Low risk

Study	Nonsurvivors			Survivors			Setting
Study	Mean	SD	Total	Mean	SD	Total	Setting
Cao J et al.	72	14.55	17	55.33	14.33	85	Zhongnan Hospital
Du RH et al.	70.2	7.7	21	56	13.5	158	Wuhan Pulmonary Hospital
Hu H et al.	75.05	12.94	19	57.71	15.34	86	Renmin Hospital of Wuhan University (2020
					10101 00	Feb 7-Mar 7)	
Tang N et al. (a)	68.7	11.4	134	63.7	12.2	315	Tongji Hospital
Wu C et al.	67.6	12.03	44	47.33	10.51	117	Wuhan Jinyintan Hospital
Xu B et al.	72.75	7.23	28	55	17.26	117	Hubei Provincial Hospital of traditional
Au D ot ul.	12.15	1.25	20	55	17.20	117	Chinese and Western medicine
Yao Q et al.	63.17	18.87	12	56.67	10.8	13	Huanggang Central Hospital
Zhang J et al.	68.7	13.36	25	56.7	18.57	638	Renmin Hospital of Wuhan University (2020
Zhung v et ul.	00.7	15.50	25	50.7	10.07	.57 038	Jan 11-Feb 6)

Table S2. Data of Age between Nonsurvivors and Survivors

Table S3. Data of Association between Advanced Age and Mortality

Study	а	b	с	d	Setting	Definition
Chen T et al. (a)	94	19	59	102	Tongji Hospital	≥60 years
Chen T et al. (b)	19	7	36	141	Zhongnan Hospital	≥65 years
Du RH et al.	17	4	48	110	Wuhan Pulmonary Hospital	≥65 years
Grasselli L et al.	283	119	503	676	ICUs in 72 hospitals	≥64 years
Luo M et al.	32	37	48	358	Wuhan Tongren Hospital	≥70 years
Miyashita H et al.	371	184	1588	3545	Mount Sinai Health System in New York City	>65 years
Richardson S et al.	419	134	676	1405	A total of 12 hospitals in the USA	>65 years
Yang X et al. (b)	20	12	7	13	Wuhan Jin Yintan hospital	≥60 years
Yao Q et al.	6	6	11	85	Huanggang Central Hospital	>65 years
Zhang J et al.	19	6	296	342	Renmin Hospital of Wuhan University	>60 years

Table S4. Data of Association between Male Sex and Mortality

Study	а	b	с	d	Setting
Du RH et al.	10	11	87	71	Wuhan Pulmonary Hospital
Hu H et al.	14	5	48	38	Renmin Hospital of Wuhan University (2020 Feb 7-Mar 7)
Li J et al.	40	24	257	337	Central Hospital of Wuhan
Liu Y et al. (a)	25	8	89	123	Zhongnan Hospital
Luo M et al.	46	23	185	221	Wuhan Tongren Hospital
Richardson S et al.	337	216	1162	919	A total of 12 hospitals in the USA
Tang N et al. (a)	90	44	178	137	Tongji Hospital
Xu B et al.	17	11	59	58	Hubei Provincial Hospital of Traditional Chinese and Western Medicine
Yang X et al. (a)	156	82	620	618	Wuhan Jinyintan Hospital
Yao Q et al.	7	5	36	60	Huanggang Central Hospital
Zhang J et al.	15	10	306	332	Renmin Hospital of Wuhan University (2020 Jan 11-Feb 6)

## Table S5. Data of Association between Current Smoking and Mortality

Study	a	b	с	d	Setting
Chen T et al. (a)	7	106	5	156	Tongji Hospital
Liu Y et al. (a)	3	30	7	205	Zhongnan Hospital
Yao Q et al.	3	9	1	95	Huanggang Central Hospital
Zhou F et al.	5	49	6	131	Jinyintan Hospital and Wuhan Pulmonary Hospital

## Table S6. Data of Association between Preexisting Any Comorbidity and Mortality

Study	а	b	с	d	Setting
Cao J et al.	13	4	34	51	Zhongnan Hospital
Guan WJ et al.	35	15	364	1176	A total of 575 hospitals in China
Luo M et al.	45	24	15	391	Wuhan Tongren Hospital
Tang N et al. (a)	91	43	181	134	Tongji Hospital
Xu B et al.	21	7	47	70	Hubei Provincial Hospital of Traditional Chinese and Western Medicine

## Table S7. Data of Association between Preexisting Chronic Kidney Disease and Mortality

Study	a	b	с	d	Setting
Cao J et al.	3	14	1	84 Zhongnan Hospital	
Chen T et al. (a)	4	109	1	160	Tongji Hospital
Guan WJ et al.	5	45	16	1524	A total of 575 hospitals in China
Xu B et al.	2	26	2	115	Hubei Provincial Hospital of Traditional Chinese and Western Medicine

#### Table S8. Data of Association between Cerebrovascular Disease and Mortality

Study	a	b	с	d	Setting
Cao J et al.	3	14	3	82	Zhongnan Hospital
Chen T et al. (a)	4	109	0	161	Tongji Hospital
Guan WJ et al.	6	44	24	1516	A total of 575 hospitals in China (2019 Dec 11-2020 Jan 31)
Hu H et al.	3	16	1	85	Renmin Hospital of Wuhan University (2020 Feb 7-Mar 7)

#### Table S9. Data of Association between Preexisting Chronic Respiratory Disease and Mortality

Study	а	b	с	d	Setting
Chen T et al. (a)	11	102	7	154	Tongji Hospital
Guan WJ et al.	6	44	18	1522	A total of 575 hospitals in China (2019 Dec 11-2020 Jan 31)
Hu H et al.	5	14	7	79	Renmin Hospital of Wuhan University (2020 Feb 7-Mar 7)
Liu Y et al. (a)	3	30	5	207	Zhongnan Hospital
Xu B et al.	0	28	2	115	Hubei Provincial Hospital of Traditional Chinese and Western Medicine

Study	а	b	c	d	Setting	
Cao J et al.	3	14	2	83	83 Zhongnan Hospital	
Chen T et al. (a)	16	97	7	154	Tongji Hospital	
Guan WJ et al.	8	42	51	1489	A total of 575 hospitals in China (2019 Dec 11-2020 Jan 31)	
Guo T et al.	29	14	37	107	Seventh Hospital of Wuhan City	
Hu H et al.	1	18	5	81	Renmin Hospital of Wuhan University (2020 Feb 7-Mar 7)	

#### Table S10. Data of Association between Preexisting Cardiovascular Disease and Mortality

## Table S11. Data of Association between Preexisting Diabetes Mellitus and Mortality

Study	а	b	с	d	Setting
Chen T et al. (a)	24	89	23	138	Tongji Hospital
Guan WJ et al.	13	37	117	1423	A total of 575 Hospitals in China (2019 Dec 11-2020 Jan 31)
Hu H et al.	0	19	4	82	Renmin Hospital of Wuhan University (2020 Feb 7-Mar 7)
Liu Y et al. (a)	7	26	16	196	Zhongnan Hospital
Luo M et al.	4	65	13	393	Wuhan Tongren Hospital

#### Table S12. Data of Association between Preexisting Hypertension and Mortality

Study	а	b	с	d	Setting	
Chen T et al. (a)	54	59	39	122	122 Tongji Hospital	
Grasselli L et al.	195	114	84	128	28 ICUs in 72 hospitals	
Guan WJ et al.	28	22	241	1299	A total of 575 Hospitals in China (2019 Dec 11-2020 Jan 31)	
Hu H et al.	6	13	22	64	Renmin Hospital of Wuhan University (2020 Feb 7-Mar 7)	
Liu Y et al. (a)	15	18	37	175	Zhongnan Hospital	
Xu B et al.	10	18	21	96	Hubei Provincial Hospital of Traditional Chinese and Western Medicine	

## Table S13. Data of Association between Preexisting Malignancy and Mortality

Study	a	b	c	d	Setting
Chen T et al. (a)	5	108	2	159	Tongji Hospital
Guan WJ et al.	3	47	15	1525	A total of 575 Hospitals in China (2019 Dec 11-2020 Jan 31)
Hu H et al.	1	18	5	81	Renmin Hospital of Wuhan University (2020 Feb 7-Mar 7)
Liu Y et al. (a)	2	31	7	205	Zhongnan Hospital
Miyashita H et al.	37	518	297	4836	Mount Sinai Health System in New York City

#### Table S14. Data of Association between Preexisting Gastrointestinal Disease and Mortality

Study	a	b	с	d	Setting
Chen T et al. (a)	1	112	2	159	Tongji Hospital
Du RH et al.	4	17	17	141	Wuhan Pulmonary Hospital
Zhang J et al.	1	24	30	608	Renmin Hospital of Wuhan University

Study	а	b	с	d	Setting	Definition
Chen T et al. (a)	5	108	6	155	Tongji Hospital     Hepatitis B virus sur antigen positivity	
Guan WJ et al.	1	49	27	1513	A total of 575 hospitals in China	Hepatitis B infection
Liu Y et al. (a)	2	31	5	207	Zhongnan Hospital	Chronic liver Disease

## Table S15. Data of Association between Preexisting Chronic Liver Disease and Mortality

#### Table S16. Data of Association between Preexisting Autoimmune Disease and Mortality

Study	а	b	с	d	Setting
Chen T et al. (a)	1	112	1	160	Tongji Hospital
Wang L et al. (b)	1	64	4	270	Renmin Hospital of Wuhan University

### Table S17. Data of Association between Symptoms of Fever and Mortality

Study	а	b	c	d	Setting
Cao J et al.	12	5	61	24	Zhongnan Hospital
Chen T et al. (a)	104	9	145	16	Tongji Hospital
Du RH et al.	21	0	156	2	Wuhan Pulmonary Hospital
Wu C et al.	39	5	149	8	Wuhan Jinyintan Hospital
Xu B et al.	23	5	96	21	Hubei Provincial Hospital of Traditional Chinese and Western Medicine
Yao Q et al.	8	4	72	24	Huanggang Central Hospital
Zhang J et al.	19	6	508	130	Renmin Hospital of Wuhan University

#### Table S18. Data of Association between Symptoms of Cough and Mortality

Study	а	b	с	d	Setting
Cao J et al.	8	9	42	43	Zhongnan Hospital
Chen T et al. (a)	79	34	106	55	Tongji Hospital
Du RH et al.	14	7	132	26	Wuhan Pulmonary Hospital
Wu C et al.	33	11	130	27	Wuhan Jinyintan Hospital
Xu B et al.	23	5	89	28	Hubei Provincial Hospital of Traditional Chinese and Western Medicine
Yao Q et al.	10	2	74	22	Huanggang Central Hospital
Zhang J et al.	16	9	394	244	Renmin Hospital of Wuhan University

### Table S19. Data of Association between Symptoms of Dyspnea and Mortality

Study	а	b	с	d	Setting
Chen T et al. (a)	70	43	50	111	Tongji Hospital
Du RH et al.	18	3	71	87	Wuhan Pulmonary Hospital
Wu C et al.	29	15	51	106	Wuhan Jinyintan Hospital
Xie J et al.	26	10	43	61	Union Hospital
Yao Q et al.	6	6	9	87	Huanggang Central Hospital
Zhang J et al.	11	14	150	488	Renmin Hospital of Wuhan University

#### Table S20. Data of Association between Symptoms of Chest Tightness and Mortality

Study	a	b	c	d	Setting
Chen T et al. (a)	55	58	48	113	Tongji Hospital
Zhang J et al.	6	19	148	490	Renmin Hospital of Wuhan University

#### Table S21. Data of Association between Symptoms of Sputum Production and Mortality

Study	а	b	с	d	Setting
Chen T et al. (a)	35	78	48	113	Tongji Hospital
Du RH et al.	12	9	43	115	Wuhan Pulmonary Hospital
Wu C et al.	19	25	64	93	Wuhan Jinyintan Hospital
Yao Q et al.	5	7	29	67	Huanggang Central Hospital
Zhang J et al.	9	16	157	481	Renmin Hospital of Wuhan University

#### Table S22. Data of Association between Symptoms of Fatigue and Mortality

Study	а	b	с	d	Setting
Cao J et al.	9	8	47	38	Zhongnan Hospital
Chen T et al. (a)	64	49	73	88	Tongji Hospital
Zhang J et al.	9	16	199	439	Renmin Hospital of Wuhan University
Zhou F et al.	15	39	29	108	Jinyintan Hospital and Wuhan Pulmonary Hospital

## Table S23. Data of Association between Symptoms of Anorexia and Mortality

Study	a	b	с	d	Setting
Chen T et al. (a)	31	82	35	126	Tongji Hospital
Wang L et al. (b)	15	50	79	195	Renmin Hospital of Wuhan University
Xu B et al.	27	1	91	26	Hubei Provincial Hospital of Traditional Chinese and Western Medicine

#### Table S24. Data of Association between Symptoms of Diarrhea and Mortality

Study	а	b	с	d	Setting	
Cao J et al.	3	14	8	77	Zhongnan Hospital	
Chen T et al. (a)	27	86	50	111	Tongji Hospital	
Xu B et al.	6	22	28	89	Hubei Provincial Hospital of Traditional Chinese and Western Medicine	
Yao Q et al.	1	11	7	89	Huanggang Central Hospital	
Zhang J et al.	0	25	61	577	Renmin Hospital of Wuhan University	
Zhou F et al.	2	52	7	130	Jinyintan Hospital and Wuhan Pulmonary Hospital	

#### Table S25. Data of Association between Symptoms of Myalgia and Mortality

Study	a	b	с	d	Setting	
Cao J et al.	5	12	30	55	Zhongnan Hospital	
Chen T et al. (a)	21	92	39	122	Tongji Hospital	
Xu B et al.	3	25	28	89	Hubei Provincial Hospital of Traditional Chinese and Western Medicine	
Zhang J et al.	0	25	63	575	Renmin Hospital of Wuhan University	
Zhou F et al.	8	46	21	116	Jinyintan Hospital and Wuhan Pulmonary Hospital	

## Table S26. Data of Association between Symptoms of Dizziness and Mortality

Study	а	b	c	d	Setting
Chen T et al. (a)	10	103	11	150	Tongji Hospital
Xu B et al.	5	23	10	107	Hubei Provincial Hospital of Traditional Chinese and Western Medicine
Zhang J et al.	1	24	22	616	Renmin Hospital of Wuhan University

#### Table S27. Data of Association between Symptoms of Nausea and Mortality

Study	а	b	с	d	Setting
Chen T et al. (a)	8	105	16	145	Tongji Hospital
Xu B et al.	7	21	11	106	Hubei Provincial Hospital of Traditional Chinese and Western Medicine
Zhang J et al.	1	24	30	608	Renmin Hospital of Wuhan University

#### Table S28. Data of Association between Symptoms of Headache and Mortality

Study	а	b	с	d	Setting
Chen T et al. (a)	11	102	20	141	Tongji Hospital
Du RH et al.	5	16	12	146	Wuhan Pulmonary Hospital
Xu B et al.	1	27	5	112	Hubei Provincial Hospital of Traditional Chinese and Western Medicine
Yao Q et al.	0	12	1	95	Huanggang Central Hospital
Zhang J et al.	0	25	20	618	Renmin Hospital of Wuhan University

#### Table S29. Data of Association between Symptoms of Vomiting and Mortality

Study	а	b	с	d	Setting
Chen T et al. (a)	6	107	10	151	Tongji Hospital
Yang X et al. (b)	1	31	1	19	Wuhan Jin Yintan hospital
Zhang J et al.	1	24	16	622	Renmin Hospital of Wuhan University

#### Table S30. Data of Association between Symptoms of Pharyngalgia and Mortality

Study	а	b	с	d	Setting
Chen T et al. (a)	4	109	8	153	Tongji Hospital
Wang L et al. (b)	3	62	10	264	Renmin Hospital of Wuhan University
Xu B et al.	2	26	6	111	Hubei Provincial Hospital of Traditional Chinese and
Au D Ct al.	2	20	6	111	Western Medicine

#### Table S31. Data of Association between Symptoms of Hemoptysis and Mortality

Study	a	b	c	d	Setting
Chen T et al. (a)	4	109	3	158	Tongji Hospital
Du RH et al.	0	21	10	148	Wuhan Pulmonary Hospital

## Table S32. Data of Association between Shock and Mortality

Study	a	b	с	d	Setting
Cao J et al.	7	10	3	82	Zhongnan Hospital
Chen T et al. (a)	46	67	0	161	Tongji Hospital
Wang L et al. (b)	3	62	5	269	Renmin Hospital of Wuhan University

#### Table S33. Data of Association between Acute Infection and Mortality

Study	а	b	с	d	Setting	Note
Cao J et al.	14	3	3	82	Zhongnan Hospital	Acute infection
Wang L et al. (b)	49	16	94	180	Renmin Hospital of Wuhan University	Bacterial Infection
Xu B et al.	11	17	9	108	Hubei Provincial Hospital of Traditional Chinese and Western Medicine	Bacterial infection
Zhou F et al.	27	27	1	136	Jinyintan Hospital and Wuhan Pulmonary Hospital	Secondary infection

## Table S34. Data of Association between Acute Kidney Injury and Mortality

Study	а	b	с	d	Setting
Cao J et al.	15	2	5	80	Zhongnan Hospital
Chen T et al. (a)	28	85	1	160	Tongji Hospital
Richardson S et al.	347	134	176	1693	A total of 12 hospitals in the USA
Wang L et al. (b)	17	48	11	263	Renmin Hospital of Wuhan University
Yao Q et al.	7	5	9	87	Huanggang Central Hospital
Zhou F et al.	27	27	1	136	Jinyintan Hospital and Wuhan Pulmonary Hospital

## Table S35. Data of Association between Acute Cardiac Injury and Mortality

Study	а	b	с	d	Setting
Cao J et al.	12	5	3	82	Zhongnan Hospital
Chen T et al. (a)	72	22	18	91	Tongji Hospital
Guo T et al.	31	12	21	123	Seventh Hospital of Wuhan City
Shi S et al.	42	15	40	319	Renmin Hospital of Wuhan University
Yao Q et al.	6	6	2	94	Huanggang Central Hospital
Zhou F et al.	32	22	1	136	Jinyintan Hospital and Wuhan Pulmonary Hospital

## Table S36. Data of Association between Acute Respiratory Distress Syndrome and Mortality

Study	a	b	с	d	Setting
Cao J et al.	15	2	5	80	Zhongnan Hospital
Chen T et al. (a)	113	0	83	78	Tongji Hospital
Wang L et al. (b)	56	9	15	259	Renmin Hospital of Wuhan University
Yao Q et al.	12	0	33	63	Huanggang Central Hospital
Zhou F et al.	50	4	9	128	Jinyintan Hospital and Wuhan Pulmonary Hospital

#### Table S37. Data of Association between Arrhythmia and Mortality

Study	а	b	с	d	Setting
Cao J et al.	12	5	6	79	Zhongnan Hospital
Wang L et al. (b)	13	52	22	252	Renmin Hospital of Wuhan University

#### Table S38. Data of Association between Heart Failure and Mortality

Study	а	b	с	d	Setting
Chen et al (a)	41	42	3	91	Tongji Hospital
Peng YD et al.	13	4	27	68	Union Hospital
Wang L et al. (b)	25	40	33	241	Renmin Hospital of Wuhan University
Zhou F et al.	28	26	16	121	Jinyintan Hospital and Wuhan Pulmonary Hospital

## Table S39 Data of Association between Acute Liver Injury and Mortality

Study	a	b	с	d	Setting
Cao J et al.	13	4	21	64	Zhongnan Hospital
Chen T et al. (a)	10	103	3	158	Tongji Hospital
Richardson S et al.	53	498	3	2043	A total of 12 hospitals in the USA
Wang L et al. (b)	22	43	74	200	Renmin Hospital of Wuhan University
Yang X et al. (b)	9	23	6	14	Wuhan Jin Yintan hospital

## Table S40. Data of Association between Sepsis and Mortality

Study	а	b	с	d	Setting
Chen T et al. (a)	113	0	66	95	Tongji Hospital
Yao Q et al.	11	1	24	72	Huanggang Central Hospital
Zhou F et al.	54	0	58	79	Jinyintan Hospital and Wuhan Pulmonary Hospital

## Table S41. Data of Association between Renal Replacement Therapy and Mortality

Study	а	b	с	d	Setting
Cao J et al.	5	12	1	84	Zhongnan Hospital
Chen T et al. (a)	3	110	0	161	Tongji Hospital
Richardson S et al.	78	475	3	2078	A total of 12 hospitals in the USA
Yao Q et al.	1	11	0	96	Huanggang Central Hospital
Zhou F et al.	10	44	0	137	Jinyintan Hospital and Wuhan Pulmonary Hospital

## Table S42. Data of Association between Invasive Mechanical Ventilation and Mortality

Study	а	b	с	d	Setting
Cao J et al.	12	5	2	83	Zhongnan Hospital
Chen T et al. (a)	17	96	0	161	Tongji Hospital
Richardson S et al.	282	271	38	2043	A total of 12 hospitals in the USA
Wu C et al.	5	39	0	157	Wuhan Jinyintan Hospital
Xu B et al.	9	19	0	117	Hubei Provincial Hospital of Traditional Chinese and Western Medicine
Yao Q et al.	10	2	0	96	Huanggang Central Hospital

Study	a	b	с	d	Setting
Cao J et al.	3	14	2	83	Zhongnan Hospital
Chen T et al. (a)	76	37	26	135	Tongji Hospital
Wu C et al.	38	6	23	134	Wuhan Jinyintan Hospital
Xu B et al.	13	15	9	108	Hubei Provincial Hospital of Traditional Chinese and Western Medicine
Yao Q et al.	2	10	2	94	Huanggang Central Hospital

## Table S43. Data of Association between Noninvasive Ventilation and Mortality

## Table S44. Data of Association between High Flow Nasal Cannula and Mortality

Study	а	b	с	d	Setting
Chen T et al. (a)	77	36	8	153	Tongji Hospital
Xu B et al.	2	26	1	116	Hubei Provincial Hospital of Traditional Chinese and Western Medicine
Yao et al	0	12	4	92	Huanggang Central Hospital
Zhou F et al.	33	21	8	129	Jinyintan Hospital and Wuhan Pulmonary Hospital

## Table S45. Data of Association between ECMO and Mortality

Study	a	b	c	d	Setting
Cao J et al.	1	16	2	83	Zhongnan Hospital
Chen T et al. (a)	1	112	0	161	Tongji Hospital
Wu C et al.	1	43	0	157	Wuhan Jinyintan Hospital

#### Table S46. Data of Association between Corticosteroid Therapy and Mortality

Study	a	b	с	d	Setting
Cao J et al.	11	6	40	45	Zhongnan Hospital
Chen T et al. (a)	99	14	118	43	Tongji Hospital
Wu C et al.	23	21	39	118	Wuhan Jinyintan Hospital
Xu B et al.	24	4	63	54	Hubei Provincial Hospital of Traditional Chinese and Western Medicine
Yao Q et al.	10	2	20	76	Huanggang Central Hospital

## Table S47. Data of Association between Antibiotic Therapy and Mortality

Study	а	b	с	d	Setting
Cao J et al.	17	0	84	1	Zhongnan Hospital
Chen T et al. (a)	105	8	144	17	Tongji Hospital
Wu C et al.	43	1	153	4	Wuhan Jinyintan Hospital
Xu B et al.	28	0	92	25	Hubei Provincial Hospital of Traditional Chinese and Western Medicine
Yao et al	12	0	36	60	Huanggang Central Hospital

Study	a	b	с	d	Setting
Cao J et al.	0	17	5	80	Zhongnan Hospital
Chen T et al. (a)	44	69	59	102 Tongji Hospital	
Xu B et al.	15	13	54	63	Hubei Provincial Hospital of Traditional Chinese and Western Medicine
Yao et al	3	9	9	87	Huanggang Central Hospital
Zhou F et al.	36	18	10	127	Jinyintan Hospital and Wuhan Pulmonary Hospital

## Table S48. Data of Association between Immunoglobulin Therapy and Mortality

## Table S49. Data of Association between Antiviral Therapy and Mortality

Study	а	b	с	d	Setting
Cao J et al.	17	0	83	2 Zhongnan Hospital	
Chen T et al. (a)	89	24	147	14	Tongji Hospital
Wu C et al.	25	19	145	12 Wuhan Jinyintan Hospital	
Yao Q et al.	12	0	96	0	Huanggang Central Hospital

## Table S50. Data of White Blood Cell Count between Nonsurvivors and Survivors

Study	Nonsurvivors			Survivo	rs		Setting
Study	Mean	SD	Total	Mean	SD	Total	betting
Chen T et al. (a)	10	5.56	113	5	1.94	161	Tongji Hospital
Chen T et al. (b)	11.7	17.62	19	7.2	9.26	36	Zhongnan Hospital
Du RH et al.	8.93	6.6	21	5.4	2.62	158	Wuhan Pulmonary Hospital
Wang L et al. (b)	9.04	6.05	65	5.82	2.5	274	Renmin Hospital of Wuhan University
Wu C et al.	8.65	4.25	44	5.19	2.86	117	Wuhan Jinyintan Hospital
Xu B et al.	7.16	4.18	28	5.34	2.44	117	Hubei Provincial Hospital of Traditional Chinese and Western Medicine
Yao Q et al.	9.67	4.47	12	5.91	5.12	13	Huanggang Central Hospital

## Table S51. Data of Neutrophil Count between Nonsurvivors and Survivors

Study	Nonsurvivors			Survivo	rs		Setting
Study	Mean	SD	Total	Mean	SD		betting
Chen T et al. (a)	9.03	5.48	113	3.37	1.57	161	Tongji Hospital
Chen T et al. (b)	9.5	15.22	19	6.1	9.26	36	Zhongnan Hospital
Du RH et al.	7.4	6.76	21	4.2	2.62	158	Wuhan Pulmonary Hospital
Wang L et al. (b)	7.91	5.6	65	4.2	2.49	274	Renmin Hospital of Wuhan University
Wu C et al.	7.73	4.18	44	3.55	2.65	117	Wuhan Jinyintan Hospital
Xu B et al.	5.93	3.96	28	3.69	2.21	117	Hubei Provincial Hospital of Traditional
	5.75	5.70	20	5.07	2.21 117	,	Chinese and Western Medicine
Yao Q et al.	6.53	5.26	12	3.46	2.56	13	Huanggang Central Hospital

Study	Nonsur	Nonsurvivors			ors		Setting
Study	Mean	SD	Total	Mean	SD	Total	Jetting
Chen T et al. (a)	0.57	0.23	113	1.03	0.52	161	Tongji Hospital
Chen T et al. (b)	2.33	4.81	19	0.93	1.54	36	Zhongnan Hospital
Du RH et al.	0.67	0.24	21	0.83	0.37	158	Wuhan Pulmonary Hospital
Wang L et al. (b)	0.6	0.34	65	1.01	0.51	274	Renmin Hospital of Wuhan University
Wu C et al.	0.6	0.2	44	1.08	0.55	117	Wuhan Jinyintan Hospital
Xu B et al.	0.61	0.48	28	0.98	0.54	117	Hubei Provincial Hospital of Traditional Chinese and Western Medicine
Yao Q et al.	0.99	0.80	12	0.79	0.26	13	Huanggang Central Hospital

Table S52. Data of Lymphocyte Count between Nonsurvivors and Survivors

#### Table S53. Data of Monocyte Count between Nonsurvivors and Survivors

Study	Nonsur	Nonsurvivors			rs		Setting
Study	Mean	SD	Total	Mean	SD	Total	betting
Chen T et al. (a)	0.4	0.3	113	0.4	0.15	161	Tongji Hospital
Wang L et al. (b)	0.34	0.2	65	0.45	0.24	274	Renmin Hospital of Wuhan University
Wu C et al.	0.3	0.19	44	0.34	0.14	117	Wuhan Jinyintan Hospital
Xu B et al.	0.32	0.18	28	0.41	0.19	117	Hubei Provincial Hospital of Traditional
						/	Chinese and Western Medicine

## Table S54. Data of Platelet Count between Nonsurvivors and Survivors

Study	Nonsurvi	vors		Survivors			Setting	
Study	Mean		Total	Mean	SD	Total	Setting	
Chen T et al. (b)	134.67	144.17	19	205.33	302.65	36	Zhongnan Hospital	
Tang N et al. (a)	178	92	134	231	99	315	Tongji Hospital	
Wang L et al. (b)	164.67	87.95	65	212.67	81.23	274	Renmin Hospital of Wuhan University	
Wu C et al.	167.83	92.35	44	185.83	74.69	117	Wuhan Jinyintan Hospital	
Yao Q et al.	165.33	52.83	12	149.67	68.11	13	Huanggang Central Hospital	

#### Table S55. Data of Hemoglobin between Nonsurvivors and Survivors

Study	Nonsurvi	vors		Survivors			Setting
Study	Mean	SD	Total	Mean	SD	Total	
Chen T et al. (a)	129	23.28	113	128	14.96	161	Renmin Hospital
Wang L et al. (b)	121.67	23.5	65	120	14.16	274	Renmin Hospital of Wuhan University
Yao Q et al.	126.33	9.22	12	120.67	12.46	13	Huanggang Central Hospital
Zhou F et al.	126.33	17.52	54	129.33	14.98	137	Jinyintan Hospital and Wuhan Pulmonary Hospital

Study	Nonsurv	ivors		Survivor	S		Setting
Study	Mean SD		Total	Total Mean S		Total	_ Setting
Chen T et al. (a)	30.33	3.83	113	36.5	4.34	161	Tongji Hospital
Chen T et al. (b)	32.67	12.01	19	34	13.13	36	Zhongnan Hospital
Du RH et al.	33.33	3.5	21	33.9	5.61	158	Wuhan Pulmonary Hospital
Wu C et al.	28.95	4.1	44	33.65	4.02	117	Wuhan Jinyintan Hospital
Yao Q et al.	31.07	5.03	12	37.17	3.99	13	Huanggang Central Hospital

## Table S57. Data of Total Bilirubin between Nonsurvivors and Survivors

Study	Nonsurvi	vors		Survivors			Setting
Study	Mean	SD	Total	Mean	SD	Total	Setting
Chen T et al. (a)	12.9	5.48	113	8.47	4.04	161	Tongji Hospital
Du RH et al.	11.4	6.36	21	9.17	4.34	158	Wuhan Pulmonary Hospital
Wu C et al.	14.88	7.24	44	10.92	3.79	117	Wuhan Jinyintan Hospital
Yao Q et al.	12.93	11.82	12	12.03	5.48	13	Huanggang Central Hospital

## Table S58. Data of ALT between Nonsurvivors and Survivors

Study	Nonsur	vivors		Survivo	rs		Setting
Study	Mean	SD	Total	Mean	SD	Total	
Chen T et al. (a)	31	21.78	113	22.27	12.87	161	Tongji Hospital
Chen T et al. (b)	49.33	62.48	19	109	209.23	36	Zhongnan Hospital
Du RH et al.	28	13.52	21	25.5	19.83	158	Wuhan Pulmonary Hospital
Wang L et al. (b)	30.67	22.74	65	29.33	19.38	274	Renmin Hospital of Wuhan University
Wu C et al.	37.33	24.52	44	28.83	17.64	117	Wuhan Jinyintan Hospital
Xu B et al.	29.5	26.56	28	24.67	21.77	117	Hubei Provincial Hospital of Traditional Chinese and Western Medicine
Yao Q et al.	20.67	4.61	12	22.77	8.06	13	Huanggang Central Hospital

## Table S59. Data of AST between Nonsurvivors and Survivors

Study	Nonsurv	vivors		Survivo	rs		Setting
Study	Mean	SD	Total	Mean	SD	Total	
Chen T et al. (a)	47.67	27.03	113	26.1	9.95	161	Tongji Hospital
Chen T et al. (b)	88	120.15	19	94.67	145.92	36	Zhongnan Hospital
Du RH et al.	42.83	27.43	21	29.5	17.21	158	Wuhan Pulmonary Hospital
Wang L et al. (b)	47	28.81	65	31.33	15.65	274	Renmin Hospital of Wuhan University
Wu C et al.	39.67	16.86	44	30.83	10.88	117	Wuhan Jinyintan Hospital
Xu B et al.	40	24.61	28	25.67	12.76	117	Hubei Provincial Hospital of Traditional Chinese and Western Medicine

Study	Nonsurv	Nonsurvivors			5		Setting
Study	Mean	SD	Total	Mean	SD	Total	Setting
Chen T et al. (a)	89.33	36.05	113	68	22.44	161	Tongji Hospital
Chen T et al. (b)	328	579.9	19	270.33	500.31	36	Zhongnan Hospital
Du RH et al.	90	38.96	21	66.67	18.7	158	Wuhan Pulmonary Hospital
Wang L et al. (b)	83	44.73	65	60	16.4	274	Renmin Hospital of Wuhan University
Wu C et al.	72.38	22.42	44	69.07	17.71	117	Wuhan Jinyintan Hospital
Xu B et al.	89.82	24.84	28	70.5	21.32	117	Hubei Provincial Hospital of Traditional Chinese and Western Medicine
Yao Q et al.	91.93	30.11	12	66.20	25.42	13	Huanggang Central Hospital

## Table S60. Data of Creatinine between Nonsurvivors and Survivors

## Table S61. Data of Blood Urea Nitrogen between Nonsurvivors and Survivors

Study	Nonsurvivors			Survivo	rs		Setting
Study	Mean	SD	Total	Mean	SD	Total	Setting
Chen T et al. (a)	8.90	5.18	113	4.03	1.57	161	Tongji Hospital
Xu B et al.	7.67	3.77	28	4.81	1.87	117	Hubei Provincial Hospital of Traditional Chinese and Western Medicine

## Table S62. Data of Urea between Nonsurvivors and Survivors

Study	Nonsurvivors			Survivo	rs		Setting
Study	Mean	SD	Total	Mean	SD	Total	Setting
Wang L et al. (b)	9.7	6.22	65	5.33	2.31	274	Renmin Hospital of Wuhan University
Wu C et al.	7.08	2.8	44	4.37	1.5	117	Wuhan Jinyintan Hospital

## Table S63. Data of Prothrombin Time between Nonsurvivors and Survivors

Study	Nonsurv	Nonsurvivors			rs		Setting
Study	Mean	SD	Total	Mean	SD	Total	Setting
Du RH et al.	14.17	3.18	21	13.77	2.09	158	Wuhan Pulmonary Hospital
Tang N et al. (a)	16.5	8.4	134	14.6	2.1	315	Tongji Hospital
Wang L et al. (b)	12.97	1.67	65	12.07	0.75	274	Renmin Hospital of Wuhan University
Wu C et al.	11.72	1.03	44	10.73	1.05	117	Wuhan Jinyintan Hospital
Xu B et al.	13.65	1.68	28	12.57	1.13	117	Hubei Provincial Hospital of Traditional Chinese and Western Medicine

## Table S64. Data of APTT between Nonsurvivors and Survivors

Study	Nonsurvivors			Survivors			Setting
Study	Mean	SD	Total	Mean	SD	Total	Stung
Chen T et al. (a)	41.03	8.49	113	40.63	5.31	161	Tongji Hospital
Du RH et al.	36.7	8.51	21	35.1	6.14	158	Wuhan Pulmonary Hospital
Wang L et al. (b)	29.43	3.34	65	28.37	4.17	274	Renmin Hospital of Wuhan University
Wu C et al.	24.9	4.67	44	29.38	5.48	117	Wuhan Jinyintan Hospital

Study	Nonsurvi	vors		Survivor	s		Setting
Study	Mean	SD	Total	Mean SD Tota	Total	Setting	
Chen T et al. (a)	116.83	74.57	113	30.23	35.23	161	Tongji Hospital
Chen T et al. (b)	146.33	217.86	19	70.33	115.04	36	Zhongnan Hospital
Du RH et al.	76.6	53.74	21	48.77	53.64	158	Wuhan Pulmonary Hospital
Wang L et al. (b)	116.1	97.42	65	46.63	51.2	274	Renmin Hospital of Wuhan University
Wu C et al.	98.47	88.48	44	29.28	38.39	117	Wuhan Jinyintan Hospital
Xu B et al.	88.65	54.54	28	24.11	35.53	117	Hubei Provincial Hospital of Traditional
Au D et ul.	00.05	54.54	20	24.11	55.55	117	Chinese and Western Medicine
Yao Q et al.	38.33	12.33	12	25.57	15.61	13	Huanggang Central Hospital

Table S65. Data of C-reactive Protein between Nonsurvivors and Survivors

### Table S66. Data of D-dimer between Nonsurvivors and Survivors

Stude.	Nonsurv	vivors		Survivo	rs		Setting
Study	Mean	SD	Total	Mean	SD	Total	Setting
Chen T et al. (b)	5.6	12.04	19	6.73	14.45	36	Zhongnan Hospital
Du RH et al.	4	8.03	21	0.67	0.67	158	Wuhan Pulmonary Hospital
Tang N et al. (a)	9.04	14.67	134	2.14	2.52	315	Tongji Hospital
Wang L et al. (b)	7.57	11.9	65	1.22	1.14	274	Renmin Hospital of Wuhan University
Wu C et al.	5.35	7.52	44	0.59	0.45	117	Wuhan Jinyintan Hospital
Xu B et al.	7.03	14.49	28	0.62	0.46	117	Hubei Provincial Hospital of Traditional
Au D et al.	7.05	14.49	20	0.02	0.40	117	Chinese and Western Medicine
Yao Q et al.	33.41	66.12	12	1.94	1.40	13	Huanggang Central Hospital

## Table S67. Data of Procalcitonin between Nonsurvivors and Survivors

Study	Nonsur	vivors		Survivo	rs		Setting
Study	Mean	SD	Total	Mean	SD	Total	betting
Chen T et al. (a)	0.37	0.38	113	0.05	0.04	161	Tongji Hospital
Chen T et al. (b)	3.08	6.41	19	0.36	0.77	36	Zhongnan Hospital
Wang L et al. (b)	0.49	0.77	65	0.08	0.07	274	Renmin Hospital of Wuhan University
Xu B et al.	0.25	0.32	28	0.04	0.04	117	Hubei Provincial Hospital of Traditional Chinese and Western Medicine
Yao Q et al.	2.75	4.75	12	0.25	0.25	13	Huanggang Central Hospital
Zhou F et al.	0.23	0.30	54	0.1	0.001	137	Jinyintan Hospital and Wuhan Pulmonary Hospital

## Table S68. Data of Ferritin between Nonsurvivors and Survivors

Study	Nonsurvivo	ors		Survivors			Setting
Study	Mean SD Total		Mean	SD	Total	betting	
Chen T et al. (a)	1.5233	0.99184	113	0.53927	0.45362	161	Tongji Hospital
Wu C et al.	1.21854	1.10402	44	0.46135	0.35948	117	Wuhan Jinyintan Hospital

Study	Nonsurviv	/ors		Survivors	5		Setting
Study	Mean	SD	Total	al Mean SD Tota		Total	Setting
Chen T et al. (a)	570.43	213.87	113	266.27	76.45	161	Tongji Hospital
Chen T et al. (b)	468.67	498.20	19	383.00	320.41	36	Zhongnan Hospital
Wang L et al. (b)	480.67	214.56	65	287	100.61	274	Renmin Hospital of Wuhan University
Wu C et al.	467.83	166.68	44	262.83	82.19	117	Wuhan Jinyintan Hospital

Table S69. Data of Lactate Dehydrogenase between Nonsurvivors and Survivors

## Table S70. Data of Creatine Kinase between Nonsurvivors and Survivors

Study	Nonsurviv	vors		Survivors			Setting
Study	Mean	SD	Total	Mean	SD	Total	betting
Chen T et al. (a)	219.33	210.26	113	91.7	66.95	161	Tongji Hospital
Chen T et al. (b)	406.33	751.31	19	125.67	189.16	36	Zhongnan Hospital
Wang L et al. (b)	118.67	130.4	65	60	16.4	274	Renmin Hospital of Wuhan University
Xu B et al.	142.33	65.62	28	86.17	67.18	117	Hubei Provincial Hospital of Traditional
							Chinese and Western Medicine
Yao Q et al.	97.70	52.16	12	106.17	85.96	13	Huanggang Central Hospital
Zhou F et al.	69.83	100.16	54	27.53	29.67	137	Jinyintan Hospital and Wuhan Pulmonary Hospital

## Table S71. Data of $\gamma$ -glutamyl Transpeptidase between Nonsurvivors and Survivors

Study	Nonsurvi	vors		Survivors	8		Setting
Study	Mean	SD	Total			Setting	
Chen T et al. (a)	46.33	32.29	113	30.77	19.67	161	Tongji Hospital
Du RH et al.	27.17	20.27	21	33.5	28.06	158	Wuhan Pulmonary Hospital

#### Table S72. Data of ESR between Nonsurvivors and Survivors

Study	Nonsurvi	vors		Survivors	5		Setting
Study	Mean	SD Total Mean SD T		Total	Setting		
Chen T et al. (a)	40.6	31.76	113	29.6	21.84	161	Tongji Hospital
Chen T et al. (b)	50	69.68	19	49.67	64.08	36	Zhongnan Hospital
Wu C et al.	57.17	25.29	44	50.67	18.24	117	Wuhan Jinyintan Hospital

## Table S73. Data of Creatine Kinase-MB between Nonsurvivors and Survivors

Study	Nonsurvivors			Survivo	rs		Setting
Study	Mean	SD	Total	Mean	SD	Total	Setting
Wang L et al. (b)	2.85	2.27	65	1.29	0.82	274	Renmin Hospital of Wuhan University
Wu C et al.	16.67	5.36	44	15.33	5.25	117	Wuhan Jinyintan Hospital
Xu B et al.	20.83	10.55	28	13.67	6.00	117	Hubei Provincial Hospital of Traditional Chinese and Western Medicine
Yao Q et al.	22.57	11.32	12	13.83	4.57	13	Huanggang Central Hospital

## Table S74. Data of NT-proBNP between Nonsurvivors and Survivors

Study				Survivors			Setting
Study	Mean	SD	Total	Mean	SD	Total	betting
Chen T et al. (a)	1.00243	1.07212	113	0.09233	0.12343	161	Tongji Hospital
Wang L et al. (a)	0.86433	1.09733	33	0.15733	0.18918	169	Renmin Hospital of Wuhan University

#### Table S75. Data of hs-cTnI between Nonsurvivors and Survivors

Study	Nonsurvivors			Survivo	rs		Setting
Study	Mean	SD	Total	Mean	SD	Total	Setting
Chen T et al. (a)	71.10	107.46	113	4.07	3.82	161	Tongji Hospital
Wang L et al. (b)	144	237.3	65	10.33	8.94	274	Renmin Hospital of Wuhan University
Zhou F et al.	36.97	59.03	54	3.2	3.3	137	Jinyintan Hospital and Wuhan Pulmonary Hospital

## Table S76. Data of Myoglobin between Nonsurvivors and Survivors

Study	Nonsurvi	vors	Survivo	rs		Setting	
Study	Mean	SD	Total	Mean	SD	Total	Sound
Du RH et al.	184.43 233.98 21		36.03	33.52	158	Wuhan Pulmonary Hospital	
Wang L et al. (a)	243.5	374.69	33	37.7	20.79	169	Renmin Hospital of Wuhan University

## Table S77. Data of Cystatin C between Nonsurvivors and Survivors

Study	Nonsurvivors			Survivors	5		Setting	
Study	Mean	SD	Total	Mean	SD	Total	Setting	
Wu C et al.	1.11	0.44	44	0.83	0.16	117	Wuhan Jinyintan Hospital	
Yao Q et al.	2.55	2.98	12	1.53	0.51	13	Huanggang Central Hospital	

## Table S78. Data of Interleukin-6 between Nonsurvivors and Survivors

Study	Nonsurvi	vors		Survivo	rs		Setting
Study	Mean	SD	Total Mean SD Total		Total	betting	
Chen T et al. (a)	84.8	83.5	113	14.4	16.61	161	Tongji Hospital
Chen T et al. (b)	212.67	330.80	19	116	216.95	36	Zhongnan Hospital
Wang L et al. (b)	104	110.99	65	11.4	10.36	274	Renmin Hospital of Wuhan University
Wu C et al.	10.74	5.7	44	6.49	1.85	117	Wuhan Jinyintan Hospital
Xu B et al.	36.1	38.5	28	15.3	17.08	117	Hubei Provincial Hospital of Traditional Chinese and Western Medicine

## Table S79. Data of CD3+ Cell Count between Nonsurvivors and Survivors

Study	Study Nonsurvivors			Survivors			Setting
Study	Mean	SD	D Total Me		SD	Total	Sound
Wu C et al.	311.33	173.20	44	648.67	284.48	117	Wuhan Jinyintan Hospital
Xu B et al.	163.33	106.63	28	462.33	262.71	117	Hubei Provincial Hospital of Traditional Chinese and Western Medicine

Study	Nonsurvi	vors		Survivor	s		Setting
Study	Mean SD		Total	Mean SD Total		Total	Setting
Wang L et al. (b)	193.33	132.68	65	360.67	222.83	274	Renmin Hospital of Wuhan University
Wu C et al.	202.33	141.01	44	408.67	216.93	117	Wuhan Jinyintan Hospital
Xu B et al.	97.42	68.94	28	249.67	131.36	117	Hubei Provincial Hospital of Traditional Chinese and Western Medicine

Table S80. Data of CD4+ Cell Count between Nonsurvivors and Survivors

#### Table S81. Data of CD8+ Cell Count between Nonsurvivors and Survivors

Study	Nonsurvivors			Survivor	5		Setting
Study	Mean SD Total		Mean	SD	Total		
Wang L et al. (b)	91.67	89.46	65	199.67	149.8	274	Renmin Hospital of Wuhan University
Wu C et al.	102.17	58.63	44	241	123.1	117	Wuhan Jinyintan Hospital
Xu B et al.	70.33	56.24	28	171.33	122.35	117	Hubei Provincial Hospital of Traditional Chinese and Western Medicine

Study	а	b	с	d	Setting
Chen T et al. (a)	56	57	6	155	Tongji Hospital
Chen T et al. (b)	4	15	6	30	Zhongnan Hospital
Yao Q et al.	9	3	3	93	Dabieshan Medical Center
Zhou F et al.	25	29	15	122	Jinyintan Hospital and Wuhan Pulmonary Hospital

#### Table S83. Data of Association between Decreased Lymphocyte Count (<0.8 $\times$ 10<sup>9</sup>/L) and Mortality

Study	а	b	c	d	Setting
Chen T et al. (a)	87	26	48	113	Tongji Hospital
Yao Q et al.	5	7	18	78	Dabieshan Medical Center
Zhou F et al.	41	13	36	101	Jinyintan Hospital and Wuhan Pulmonary Hospital

## Table S84. Data of Association between Decreased Lymphocyte Count (<1.1 $\times$ 10<sup>9</sup>/L) and Mortality

Study	а	b	с	d	Setting
Cao J et al.	11	6	54	31	Zhongnan Hospital
Du RH et al.	19	2	114	44	Wuhan Pulmonary Hospital

## Table S85. Data of Association between Decreased Platelet Count ( $<100 \times 10^9/L$ ) and Mortality

Study	а	b	с	d	Setting
Chen T et al. (b)	5	14	4	32	Zhongnan Hospital
Yao Q et al.	1	11	9	87	Dabieshan Medical Center
Zhou F et al.	11	43	2	135	Jinyintan Hospital and Wuhan Pulmonary Hospital

#### Table S86. Data of Association between Decreased Platelet Count ( $<125 \times 10^{9}/L$ ) and Mortality

Study	а	b	с	d	Setting
Liu Y et al. (b)	21	28	47	287	Central Hospital of Wuhan
Yang X et al. (a)	173	65	133	1105	Jinyintan Hospital

#### Table S87. Data of Association between Increased ALT (>40 U/L) and Mortality

Study	a	b	с	d	Setting
Cao J et al.	7	10	18	66	Zhongnan Hospital
Chen T et al. (a)	30	83	30	131	Tongji Hospital
Zhou F et al.	26	28	33	102	Jinyintan Hospital and Wuhan Pulmonary Hospital

#### Table S88. Data of Association between Increased AST (>40 U/L) and Mortality

Study	а	b	с	d	Setting	
Chen T et al. (a)	59	54	25	136	Tongji Hospital	
Chen T et al. (b)	14	5	18	18	Zhongnan Hospital	
Du RH et al.	10	11	47	111	Wuhan Pulmonary Hospital	

#### Table S89. Data of Association between Increased Creatinine (>133 $\mu mol/L)$ and Mortality

Study	a	b	с	d	Setting
Yao Q et al.	1	11	3	93	Dabieshan Medical Center
Zhou F et al.	5	49	3	129	Jinyintan Hospital and Wuhan Pulmonary Hospital

#### Table S90. Data of Association between Increased Procalcitonin (≥0.5 ng/mL) and Mortality

Study	a	b	с	d	Setting
Chen T et al. (a)	35	61	3	137	Tongji Hospital
Zhou F et al.	13	38	1	112	Jinyintan Hospital and Wuhan Pulmonary Hospital

#### Table S91. Data of Association between Increased Procalcitonin (≥0.1 ng/mL) and Mortality

Study	a	b	с	d	Setting	
Cao J et al.	13	4	22	43	Zhongnan Hospital	
Zhou F et al.	32	19	18	95	Jinyintan Hospital and Wuhan Pulmonary Hospital	

#### Table S92. Data of Association between Increased Procalcitonin (≥0.05 ng/mL) and Mortality

Study	а	b	с	d	Setting	
Chen T et al. (a)	95	1	70	70	Tongji Hospital	
Yao Q et al.	9	3	52	44	Dabieshan Medical Center	

#### Table S93. Data of Association between Increased C-reactive Protein (≥10 mg/L) and Mortality

Study	a	b	c	d	Setting	
Cao J et al.	16	1	36	49	Zhongnan Hospital	
Du RH et al.	20	1	138	20	Wuhan Pulmonary Hospital	

#### Table S94. Data of Association between Increased D-dimer (>1.0 $\mu g/mL)$ and Mortality

Study	a	b	с	d	Setting
Yao Q et al.	9	3	31	65	Huanggang Central Hospital
Zhou F et al.	44	10	28	90	Jinyintan Hospital and Wuhan Pulmonary Hospital

#### Table S95. Data of Association between Respiratory Rate ≥30 breaths per min and Mortality

Study	а	b	с	d	d Setting	
Chen T et al. (a)	30	83	5	156	Tongji Hospital	
Liu Y et al. (a)	4	29	4	207	Zhongnan Hospital	

## Table S96. Data of Association between Respiratory Rate ≥24 breaths per min and Mortality

Study	а	b	с	d	Setting	
Chen T et al. (a)	66	47	22	139	Tongji Hospital	
Zhou F et al.	34	20	22	115	Jinyintan Hospital and Wuhan Pulmonary Hospital	

#### Table S97. Data of Association between Bilateral Pneumonia and Mortality

Study	а	b	с	d	Setting	
Cao J et al.	14	3	58	27	Zhongnan Hospital	
Chen T et al. (a)	113	0	152	9	Tongji Hospital	
Yao Q et al.	12	0	86	10	Huanggang Central Hospital	
Zhang J et al.	20	5	530	108	Renmin Hospital of Wuhan University	
Zhou F et al.	45	9	98	39	Jinyintan Hospital and Wuhan Pulmonary Hospital	

#### Table S98. Data of Association between Highest Temperature ≥39 °C and Mortality

Study	a	b	с	d	Setting	
Wu C et al.	14	30	63	94	Wuhan Jinyintan Hospital	
Yao Q et al.	3	9	7	89	Huanggang Central Hospital	

#### Table S99. Data of Respiratory Rate between Nonsurvivors and Survivors

Study	Nonsurv	ivors		Survivor	'S		Setting
Study	Mean	SD	Total	Mean	SD	Total	betting
Chen T et al. (a)	24.67	7.51	113	20.33	0.75	161	Tongji Hospital
Du RH et al.	24.83	11.53	21	20.33	0.75	158	Wuhan Pulmonary Hospital
Hu H et al.	23.21	5.38	19	20.27	3.27	86	Renmin Hospital of Wuhan University (2020 Feb 7- 2020 Mar 7)
Wang L et al. (b)	23	9.1	65	19.33	1.49	274	Renmin Hospital of Wuhan University (2020 Jan 1- 2020 Feb 6)
Yao Q et al.	20.33	2.52	12	20.33	2.49	13	Huanggang Central Hospital

Study	Nonsurv	vivors		Survivor	rs		Setting
Study	Mean	SD	Total	Mean	SD	Total	Setting
Chen T et al. (a)	98	21.78	113	91.33	18.70	161	Tongji Hospital
Du RH et al.	93.83	25.04	21	87.6	15.94	158	Wuhan Pulmonary Hospital
Hu H et al.	87.47	13.56	19	84.23	17.48	86	Renmin Hospital of Wuhan University (2020 Feb 7- Mar 7)
Wang L et al. (b)	87.67	17.44	65	82.67	10.43	274	Renmin Hospital of Wuhan University (2020 Jan 1- Feb 6)
Yang X et al. (b)	89	15	32	89	20	20	Wuhan Jin Yintan hospital
Yao Q et al.	81	12.58	12	84.33	5.81	13	Huanggang Central Hospital

Table S100. Data of Heart Rate between Nonsurvivors and Survivors

### Table S101. Data of PaO<sub>2</sub> between Nonsurvivors and Survivors

Study	Nonsurvi	vors		Survivors			Setting
Study	Mean	SD	Mean	SD	Total	beamg	
Chen T et al. (a)	61.07	25.66	35	124.97	56.42	32	Tongji Hospital
Du RH et al.	58.67	17.49	21	75.17	24.69	158	Wuhan Pulmonary Hospital
Peng YD et al.	78.67	28.29	17	90	12.04	95	Union Hospital

## Table S102. Data of $PaCO_2$ between Nonsurvivors and Survivors

Study	Nonsurvi	vors		Survivors	3		Setting
Study	Mean	SD	Total	Mean	SD	Total	betting
Chen T et al. (a)	31.93	5.49	35	37.93	4.89	32	Tongji Hospital
Du RH et al.	34.67	9.54	21	37.33	5.24	158	Wuhan Pulmonary Hospital
Peng YD et al.	37	8.89	17	41.67	4.52	95	Union Hospital

## Table S103. Data of SpO $_2$ between Nonsurvivors and Survivors

Study	Nonsurviv	ors		Survivors			Setting
Study	Mean	SD	Total	Mean	SD	Total	beams
Chen T et al. (a)	84.67	14.27	113	96.77	2.02	161	Tongji Hospital
Hu H et al.	86.53	12.46	19	96.17	3.1	86	Renmin Hospital of Wuhan
	00.55	12.40	17	50.17	5.1	00	University
Peng YD et al.	95.33	3.23	17	96.33	2.26	95	Union Hospital

## Table S104. Data of PaO<sub>2</sub>/FiO<sub>2</sub> between Nonsurvivors and Survivors

Study	Nonsurvi	vors		Survivors	8		Setting
Study	Mean	SD	Total	Mean	SD	Total	betting
Chen T et al. (a)	117.13	71.50	35	329.67	151.33	32	Tongji Hospital
Du RH et al.	185.5	64.8	21	261.5	108.2	158	Wuhan Pulmonary Hospital
Peng YD et al.	215.67	253.02	17	429.33	25.59	95	Union Hospital
Yang X et al. (b)	62.8	17.15	32	99.03	47.95	20	Wuhan Jin Yintan hospital

Study	Nonsurviv	vors		Survivors			Setting
Study	Mean	SD	Total	Mean	SD	Total	betting
Yang X et al. (b)	18	3.1	32	14.33	3.99	20	Wuhan Jin Yintan hospital
Yao Q et al.	11.67	10.9	12	6	3.32	13	Huanggang Central Hospital

## Table S105. Data of APACHE II Score between Nonsurvivors and Survivors

#### Table S106. Data of SOFA Score between Nonsurvivors and Survivors

Study	Nonsurvi	vors		Survivors			Setting
Study	Mean	SD	Total	Mean	SD	Total	betting
Yao Q et al.	4.33	5.03	12	2	1.66	13	Huanggang Central Hospital
Zhou F et al.	4.83	1.52	54	1.33	0.75	137	Jinyintan Hospital and Wuhan Pulmonary Hospital

## Table S107 Data of Time from Illness Onset to Hospital Admission between Nonsurvivors and Survivors

Study	Nonsurv	vivors		Survivo	rs		Setting
Study	Mean	SD	Total	Mean	SD	Total	Joung
Cao J et al.	5.67	4.04	17	5.33	3.02	85	Zhongnan Hospital
Chen T et al. (a)	10	4.51	113	9	4.49	161	Tongji Hospital
Hu H et al.	8.37	5.78	19	10.24	7.51	86	Renmin Hospital of Wuhan University (2020 Feb 7- 2020 Mar 7)
Wang L et al. (b)	10.33	5.31	65	10	4.47	274	Renmin Hospital of Wuhan University (2020 Jan 1- 2020 Feb 6)
Yao Q et al.	7.33	2.52	12	6	3.32	13	Huanggang Central Hospital
Zhou F et al.	11.33	5.33	54	10.67	3.75	137	Jinyintan Hospital and Wuhan Pulmonary Hospital

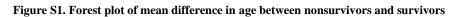
Prognostic factors	Pre-s	ensitivity analysis	Post-se	nsitivity analysis, RR	(95% Cl)
	I <sup>2</sup> (%)	RR (95% Cl)	Omitted	Omitted	Fixed-effects model
			largest study	smallest study	
Advanced age	86	2.31 [1.99, 2.67]	2.38 [1.96, 2.90]	2.33 [2.00,2.71]	2.12 [2.03,2.21]
Male sex	65	1.30 [1.17, 1.44]	1.34 [1.22, 1.47]	1.30 [1.16, 1.45]	1.21 [1.15, 1.27]
Any comorbidity	97	2.85 [1.47, 5.51]	2.85 [1.17, 6.96]	3.16 [1.42, 7.05]	1.99 [1.80, 2.20]
Hypertension	82	2.11 [1.49, 2.99]	1.80 [1.48, 2.19]	2.25 [1.55, 3.28]	1.90 [1.66, 2.17]
Chronic respiratory disease	50	3.84 [1.81, 8.16]	2.70 [1.48, 4.93]	3.87 [1.38, 10.9]	3.29 [1.99, 5.44]
Malignancy	54	2.03 [0.92, 4.44]	3.08 [1.39, 6.82]	2.31 [0.92, 5.76]	1.30 [0.96, 1.76]
Anorexia	64	1.12 [0.81, 1.55]	<u>1.24 [1.11, 1.39]</u>	1.02 [0.65, 1.59]	1.11 [0.91, 1.34]
Nausea	61	1.25 [0.46, 3.40]	1.37 [0.37, 5.07]	0.73 [0.35, 1.55]	1.15 [0.66, 1.98]
Antiviral therapy	92	0.87 [0.71, 1.08]	0.86 [0.59, 1.26]	0.83 [0.64, 1.08]	0.83 [0.76, 0.90]
Antibiotic therapy	94	1.20 [1.02, 1.40]	1.28 [1.00, 1.63]	1.28 [1.04, 1.57]	1.10 [1.06, 1.15]
Immunoglobulin therapy	90	2.00 [0.82, 4.88]	2.32 [0.57, 9.41]	2.25 [0.88, 5.76]	<u>1.69 [1.37, 2.08]</u>
Corticosteroid therapy	88	1.79 [1.25, 2.55]	2.02 [1.36, 3.02]	1.91 [1.25, 2.93]	1.45 [1.31, 1.60]
White blood cell count $\geq 10 \times 10^9/L$	84	6.41 [2.18, 18.8]	4.97 [1.26, 19.6]	10.2 [3.52, 29.3]	6.74 [4.54, 10.0]
Platelet count <100×109/L	65	3.34 [0.75, 14.8]	1.82 [0.66, 5.06]	3.82 [0.26, 56.7]	4.09 [1.95, 8.59]
Platelet count <125×10 <sup>9</sup> /L	92	4.65 [2.13, 10.2]	Not available	Not available	5.95 [5.06, 7.00]
AST >40 U/L	80	2.01 [1.13, 3.58]	1.52 [1.10, 2.11]	2.36 [1.12, 4.97]	2.39 [1.84, 3.11]
Procalcitonin ≥0.1 ng/mL	69	2.96 [1.67, 5.25]	Not available	Not available	3.18 [2.28, 4.44]
Procalcitonin ≥0.05 ng/mL	66	1.72 [1.23, 2.43]	Not available	Not available	1.88 [1.61, 2.19]
C-reactive protein $\geq 10 \text{ mg/L}$	97	1.58 [0.68, 3.63]	Not available	Not available	<u>1.42 [1.27, 1.59]</u>
D-dimer >1.0 µg/mL	51	2.89 [1.94, 4.29]	Not available	Not available	3.12 [2.35, 4.14]
Sepsis	54	2.59 [2.11, 3.17]	2.84 [1.83, 4.40]	2.38 [2.08, 2.73]	2.46 [2.16, 2.81]
Acute respiratory distress syndrome	97	6.82 [2.56, 18.2]	5.36 [2.25, 12.8]	5.71 [2.01, 16.2]	3.83 [3.36, 4.37]
Acute cardiac injury	72	8.22 [4.95, 13.7]	10.6 [4.87, 22.8]	7.07 [4.30, 11.6]	6.98 [5.56, 8.76]
Acute infection	93	9.78 [2.05, 46.7]	17.1 [3.42, 86.0]	7.00 [1.39, 35.3]	3.87 [3.14, 4.77]
Acute kidney injury	55	9.64 [6.01, 15.4]	13.0 [5.48, 30.8]	8.89 [5.26, 15.0]	8.47 [7.31, 9.80]
Heart failure	76	4.18 [2.37, 7.36]	5.06 [1.97, 13.0]	5.13 [2.46, 10.7]	4.47 [3.36, 5.95]
Arrhythmia	85	4.86 [1.24, 19.0]	Not available	Not available	3.93 [2.44, 6.34]
Shock	82	12.6 [1.25, 127.1]	33.7 [1.04, 1093]	<u>16.6 [0.08, 3391]</u>	21.4 [8.32, 54.8]
Acute liver injury	93	3.78 [1.18, 12.1]	<u>1.91 [0.97, 3.73]</u>	5.44 [1.33, 22.2]	3.43 [2.71, 4.34]
Highest temperature ≥39 °C	80	1.48 [0.36, 6.12]	Not available	Not available	0.93 [0.61, 1.44]

Table S108. Sensitivity Analyses of Dichotomous Prognostic Factors.

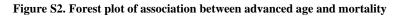
Prognostic factors	Pr	e-sensitivity analysis	Post-s	ensitivity analysis, MD (959	% Cl)
	$I^2$	MD (95% Cl)	Omitted	Omitted	Fixed-effects model
	(%)		largest study	smallest study	
Age	89	13.9 [8.95, 18.9]	14.2[8.54, 19.9]	14.6 [9.32, 19.8]	11.8 [10.3, 13.3]
Respiratory rate, breaths per min	70	2.94 [1.10, 4.79]	2.76 [0.36, 5.17]	3.96 [2.92, 5.00]	3.09 [2.17, 4.01]
PaO <sub>2</sub> , mm Hg	89	-28.7 [-52.7, -4.65]	<u>-37.0 [-88.4, 14.6]</u>	-15.1 [-22.2, -7.91]	-20.0 [-26.8, -13.2]
SpO <sub>2</sub>	96	-7.45 [-15.9, 0.96]	-4.88 [-13.3, 3.54]	-6.50 [-17.4, 4.38]	<u>-4.29 [-5.62, -2.95]</u>
PaO <sub>2</sub> /FiO <sub>2</sub>	92	-122.6 [-198.2, -47.0]	-148.8 [-291.0, -6.49]	-161.0 [-270.2, -51.8]	-66.5 [-83.6, -49.3]
Neutrophil count, ×10 <sup>9</sup> /L	61	3.86 [2.74, 4.99]	3.85 [2.45, 5.25]	3.92 [2.70, 5.14]	4.20 [3.59, 4.81]
Lymphocyte count, ×10 <sup>9</sup> /L	78	-0.34 [-0.47, -0.21]	-0.31 [-0.48, -0.14]	-0.37 [-0.49, -0.25]	-0.38 [-0.43, -0.33]
Monocyte count, ×10 <sup>9</sup> /L	62	-0.06 [-0.11, -0.01]	<u>-0.04 [-0.09, 0.01]</u>	<u>-0.05 [-0.12, 0.01]</u>	-0.06 [-0.09, -0.03]
Platelet count, ×10 <sup>9</sup> /L	59	-34.0 [-57.1, -10.9]	-25.0 [-55.6, 5.53]	-43.8 [-60.2, -27.5]	-40.7 [-53.4, -28.0]
Albumin, g/L	87	-4.05 [-6.51, -1.59]	-3.31 [-6.24, -0.38]	-3.60 [-6.43, -0.77]	-4.81 [-5.52, -4.10]
ALT, U/L	60	3.58 [-0.72, 7.87]	4.03 [-1.17, 9.23]	5.11 [1.12, 9.10]	3.75 [1.29, 6.22]
AST, U/L	73	14.8 [9.56, 20.1]	14.5 [7.67, 21.4]	14.9 [9.49, 20.4]	15.2 [12.1, 18.2]
Creatinine, µmol/L	64	18.0 [10.1, 25.9]	17.1 [7.91, 26.2]	17.3 [8.79, 25.8]	16.0 [11.9, 20.0]
Blood urea nitrogen, mmol/L	80	3.94 [1.97, 5.90]	Not available	Not available	4.23 [3.41, 5.04]
Urea, mmol/L	71	3.41 [1.81, 5.02]	Not available	Not available	3.11 [2.36, 3.87]
APTT, seconds	91	-0.47 [-3.31, 2.37]	-1.01 [-4.89, 2.86]	<u>0.94 [0.13, 1.76]</u>	-0.07 [-0.81, 0.66]
C-reactive protein, mg/L	92	55.9 [27.3, 84.5]	53.5 [21.0, 86.0]	64.9 [46.1, 83.7]	45.7 [38.6, 52.8]
Procalcitonin, ng/mL	76	0.27 [0.14, 0.40]	0.23 [0.09, 0.38]	0.26 [0.14, 0.38]	0.25 [0.20, 0.29]
Lactate dehydrogenase, U/L	81	225.6 [153.8, 297.3]	236.6 [142.2, 331.0]	235.9 [162.3, 309.4]	246.4 [218.9, 274.0]
Creatine kinase, U/L	75	59.3 [26.2, 92.5]	59.9 [16.2, 103.6]	70.5 [38.3, 102.6]	58.1 [43.4, 72.7]
γ-glutamyl transpeptidase, U/L	92	4.91 [-16.5, 26.4]	Not available	Not available	<u>8.52 [3.02, 14.0]</u>
Creatine kinase-MB, U/L	74	3.11 [0.84, 5.37]	5.12 [0.10, 10.1]	2.41 [0.39, 4.43]	1.68 [1.15, 2.21]
hs-cTnI, ng/mL	87	68.6 [29.3, 107.9]	49.8 [17.3, 82.4]	94.6 [30.3, 159.0]	50.5 [38.4, 62.5]
Interleukin-6, pg/mL	96	47.8 [10.6, 85.0]	34.1 [-2.65, 70.8]	45.6 [7.58, 83.6]	5.61 [3.91, 7.30]

Table S109. Sensitivity Analyses of Continuous Prognostic Factors.

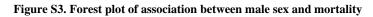
	Non	survivo	rs	Su	irvivors			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
Cao J et al.	72	14.55	17	55.33	14.33	85	11.2%	16.67 [9.11, 24.23]	<b>_</b>
Du RH et al.	70.2	7.7	21	56	13.5	158	13.9%	14.20 [10.29, 18.11]	
Hu H et al.	75.05	12.94	19	57.71	15.34	86	11.9%	17.34 [10.68, 24.00]	<b>_</b>
Tang N et al. (a)	68.7	11.4	134	63.7	12.2	315	14.7%	5.00 [2.65, 7.35]	-
Wu C et al.	67.6	12.03	44	47.33	10.51	117	13.8%	20.27 [16.24, 24.30]	
Xu B et al.	72.75	7.23	28	55	17.26	117	13.7%	17.75 [13.63, 21.87]	
Yao Q et al.	63.17	18.87	12	56.67	10.8	13	8.0%	6.50 [-5.68, 18.68]	
Zhang J et al.	68.7	13.36	25	56.7	18.57	638	12.8%	12.00 [6.57, 17.43]	
Total (95% CI)			300			1529	100.0%	13.93 [8.95, 18.92]	•
Heterogeneity: Tau <sup>2</sup> =	= 42.73; (	Chi²=6	3.46, di	f=7 (P	< 0.000	01); I <sup>z</sup> =	89%		
Test for overall effect	: Z = 5.48	I(P < 0.	00001)	ı ,					-50 -25 0 25 50 Lower risk of mortality Higher risk of mortality



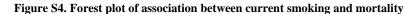
	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	94	113	59	161	11.7%	2.27 [1.82, 2.83]	
Chen T et al. (b)	19	26	36	177	7.8%	3.59 [2.47, 5.22]	
Du RH et al.	17	21	48	158	9.2%	2.66 [1.95, 3.65]	
Grasselli L et al.	283	402	503	1179	14.9%	1.65 [1.51, 1.81]	· · · · · · · · · · · · · · · · · · ·
Luo M et al.	32	69	48	406	8.0%	3.92 [2.72, 5.66]	
Miyashita H et al.	371	555	1588	5133	15.3%	2.16 [2.01, 2.32]	-
Richardson S et al.	419	553	676	2081	15.2%	2.33 [2.16, 2.52]	•
Yang X et al. (b)	20	32	7	20	3.8%	1.79 [0.93, 3.44]	+
Yao Q et al.	6	12	11	96	2.8%	4.36 [1.97, 9.65]	
Zhang J et al.	19	25	296	638	11.3%	1.64 [1.29, 2.07]	
Total (95% CI)		1808		10049	100.0%	2.31 [1.99, 2.67]	•
Total events	1280		3272				
Heterogeneity: Tau <sup>2</sup> =	= 0.04: Chi <sup>2</sup>	= 63.67	. df = 9 (F	< 0.000	101); I <sup>2</sup> = 8	36%	
Test for overall effect	•						0.05 0.2 1 5 20 Lower risk of mortality Higher risk of mortality

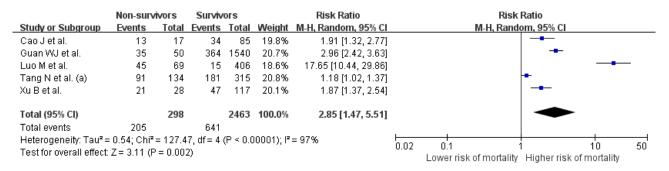


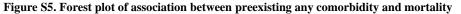
	Non-surv	/ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Du RH et al.	10	21	87	158	3.9%	0.86 [0.54, 1.38]	
Hu H et al.	14	19	48	86	6.5%	1.32 [0.95, 1.83]	
Li J et al.	40	64	257	594	10.3%	1.44 [1.17, 1.78]	│ — <b>-</b> —
Liu Y et al. (a)	25	33	89	212	8.8%	1.80 [1.41, 2.32]	
Luo M et al.	46	69	185	406	10.9%	1.46 [1.20, 1.78]	
Richardson S et al.	337	553	1162	2081	16.2%	1.09 [1.01, 1.18]	
Tang N et al. (a)	90	134	178	315	12.9%	1.19 [1.02, 1.39]	
Xu B et al.	17	28	59	117	6.0%	1.20 [0.85, 1.71]	
Yang X et al. (a)	156	238	620	1238	15.0%	1.31 [1.18, 1.46]	
Yao Q et al.	7	12	36	96	3.1%	1.56 [0.90, 2.68]	· · · · · · · · · · · · · · · · · · ·
Zhang J et al.	15	25	306	638	6.4%	1.25 [0.90, 1.74]	
Total (95% CI)		1196		5941	100.0%	1.30 [1.17, 1.44]	•
Total events	757		3027				
Heterogeneity: Tau <sup>2</sup> =	= 0.02; Chi <b></b> ª	= 28.28	, df = 10	(P = 0.0)	02); <b>I<sup>z</sup> =</b> 6	5%	
Test for overall effect	: Z = 4.87 (F	P < 0.00	001)				0.2 0.5 1 2 Lower risk of mortality Higher risk of mortality



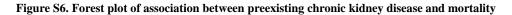
	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	7	113	5	161	31.6%	1.99 [0.65, 6.13]	
Liu Y et al. (a)	3	33	7	212	26.0%	2.75 [0.75, 10.12]	
Yao Q et al.	3	12	1	96	11.6%	24.00 [2.71, 212.77]	•
Zhou F et al.	5	54	6	137	30.8%	2.11 [0.67, 6.64]	
Total (95% CI)		212		606	100.0%	2.95 [1.32, 6.58]	-
Total events	18		19				
Heterogeneity: Tau <sup>z</sup> =	= 0.20; Chi <sup>z</sup>	= 4.31,	df = 3 (P :	= 0.23)	; I <b>²</b> = 30%		
Test for overall effect							0.02 0.1 1 10 50 Lower risk of mortality Higher risk of mortality







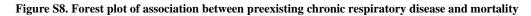
	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Cao J et al.	3	17	1	85	11.7%	15.00 [1.66, 135.71]	• \bullet • \bullet = • • \bullet = \bullet \bullet \bullet = \bullet \bullet \bullet =\bullet =\bullet \bullet = _
Chen T et al. (a)	4	113	1	161	11.9%	5.70 [0.65, 50.32]	
Guan WJ et al.	5	50	16	1540	61.0%	9.63 [3.67, 25.24]	
Xu B et al.	2	28	2	117	15.4%	4.18 [0.62, 28.39]	
Total (95% CI)		208		1903	100.0%	8.37 [3.94, 17.77]	
Total events	14		20				
Heterogeneity: Tau <sup>2</sup> :	= 0.00; Chi <sup>z</sup>	= 1.02,	df = 3 (P	= 0.80)	; I <b>²</b> = 0%		
Test for overall effect	•						0.02 0.1 1 10 50 Lower risk of mortality Higher risk of mortality



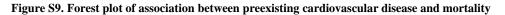
	Non-surv	ivors	Surviv	ors		Risk Ratio		Risk Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl		M-H, Random, 95% Cl	
Cao J et al.	3	17	3	85	20.3%	5.00 [1.10, 22.71]			
Chen T et al. (a)	4	113	0	161	5.5%	12.79 [0.70, 235.22]			
Guan WJ et al.	6	50	24	1540	64.6%	7.70 [3.29, 18.00]			
Hu H et al.	3	19	1	86	9.6%	13.58 [1.49, 123.53]			•
Total (95% CI)		199		1872	100.0%	7.66 [3.87, 15.15]			
Total events	16		28						
Heterogeneity: Tau <sup>2</sup> :				= 0.87)	; I² = 0%		.05 0.2	1	5
Test for overall effect	t: Z = 5.85 (F	° < 0.00	001)					k of mortality Higher risk	of mortality

Figure S7. Forest plot of association between cerebrovascular disease and mortality

	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	11	113	7	161	26.2%	2.24 [0.90, 5.60]	
Guan WJ et al.	6	50	18	1540	27.1%	10.27 [4.26, 24.75]	<b>_</b>
Hu H et al.	5	19	7	86	23.7%	3.23 [1.15, 9.10]	
Liu Y et al. (a)	3	33	5	212	17.5%	3.85 [0.97, 15.38]	
Xu B et al.	0	28	2	117	5.5%	0.81 [0.04, 16.49]	•
Total (95% CI)		243		2116	100.0%	3.84 [1.81, 8.16]	
Total events	25		39				
Heterogeneity: Tau <sup>2</sup> =	= 0.35; Chi <sup>z</sup>	= 7.98,	df = 4 (P	= 0.09)	; I <sup>2</sup> = 50%	1	
Test for overall effect					-		0.05 0.2 1 5 20 Lower risk of mortality Higher risk of mortality



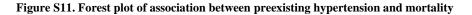
	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Cao J et al.	3	17	2	85	4.4%	7.50 [1.35, 41.54]	· · · · · · · · · · · · · · · · · · ·
Chen T et al. (a)	16	113	7	161	15.8%	3.26 [1.39, 7.66]	<b>_</b>
Guan WJ et al.	8	50	51	1540	22.4%	4.83 [2.42, 9.63]	
Guo T et al.	29	43	37	144	54.4%	2.62 [1.86, 3.71]	│ <b></b>
Hu H et al.	1	19	5	86	3.0%	0.91 [0.11, 7.31]	
Total (95% CI)		242		2016	100.0%	3.16 [2.19, 4.56]	•
Total events	57		102				
Heterogeneity: Tau <sup>2</sup> =	= 0.03; Chi <sup>z</sup>	= 4.80,	df = 4 (P	= 0.31)	; I <sup>z</sup> = 17%	I.	
Test for overall effect	-						0.05 0.2 1 5 20 Lower risk of mortality Higher risk of mortality



	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	24	113	23	161	31.2%	1.49 [0.88, 2.50]	+ <b>-</b>
Guan WJ et al.	13	50	117	1540	32.1%	3.42 [2.08, 5.64]	<b>_</b>
Hu H et al.	0	19	4	86	2.6%	0.48 [0.03, 8.62]	·
Liu Y et al. (a)	7	33	16	212	20.4%	2.81 [1.25, 6.31]	
Luo M et al.	4	69	13	406	13.8%	1.81 [0.61, 5.39]	
Total (95% CI)		284		2405	100.0%	2.21 [1.37, 3.56]	•
Total events	48		173				
Heterogeneity: Tau <sup>2</sup> =	= 0.12; Chi <sup>z</sup>	= 7.22,	df = 4 (P	= 0.12)	; I <sup>z</sup> = 45%	1	
Test for overall effect				,			0.05 0.2 1 5 20 Lower risk of mortality Higher risk of mortality

#### Figure S10. Forest plot of association between preexisting diabetes mellitus and mortality

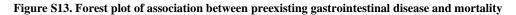
	Non-surv	/ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	54	113	39	161	18.8%	1.97 [1.41, 2.76]	] —
Grasselli L et al.	195	309	84	212	21.3%	1.59 [1.32, 1.92]	j <b>–</b>
Guan WJ et al.	28	50	241	1540	19.9%	3.58 [2.73, 4.70]	j
Hu H et al.	6	19	22	86	11.0%	1.23 [0.58, 2.62]	j <b>– † • – –</b>
Liu Y et al. (a)	15	33	37	212	16.0%	2.60 [1.62, 4.19]	
Xu B et al.	10	28	21	117	13.1%	1.99 [1.06, 3.74]	]
Total (95% CI)		552		2328	100.0%	2.11 [1.49, 2.99]	▲
Total events	308		444				
Heterogeneity: Tau <sup>2</sup> =	= 0.14; Chi <sup>z</sup>	= 27.35	i, df = 5 (F	o < 0.00	)01); <b>I<sup>z</sup> =</b> 8	2%	
Test for overall effect	: Z = 4.18 (F	° < 0.00	01)				0.05 0.2 1 5 20 Lower risk of mortality Higher risk of mortality



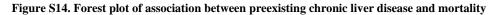
	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	5	113	2	161	14.9%	3.56 [0.70, 18.04]	
Guan WJ et al.	3	50	15	1540	20.7%	6.16 [1.84, 20.60]	•
Hu H et al.	1	19	5	86	10.5%	0.91 [0.11, 7.31]	
Liu Y et al. (a)	2	33	7	212	16.0%	1.84 [0.40, 8.46]	
Miyashita H et al.	37	555	297	5133	37.9%	1.15 [0.83, 1.60]	
Total (95% CI)		770		7132	100.0%	2.03 [0.92, 4.44]	
Total events	48		326				
Heterogeneity: Tau <sup>2</sup> =	= 0.39; Chi <sup>z</sup>	= 8.69,	df = 4 (P	= 0.07)	; I <sup>z</sup> = 54%	I.	
Test for overall effect	-						0.05 0.2 1 5 20 Lower risk of mortality Higher risk of mortality



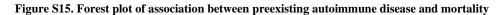
	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	1	113	2	161	12.0%	0.71 [0.07, 7.76]	
Du RH et al.	4	21	17	158	70.0%	1.77 [0.66, 4.76]	
Zhang J et al.	1	25	30	638	18.0%	0.85 [0.12, 5.99]	
Total (95% CI)		159		957	100.0%	1.39 [0.61, 3.18]	
Total events	6		49				
Heterogeneity: Tau <sup>2</sup> =	= 0.00; Chi <sup>2</sup>	= 0.81,	df = 2 (P	= 0.67)	; I² = 0%		
Test for overall effect	: Z = 0.78 (F	P = 0.43)					0.05 0.2 1 5 20 Lower risk of mortality Higher risk of mortality



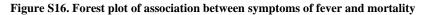
	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl	
Chen T et al. (a)	5	113	6	161	53.3%	1.19 [0.37, 3.80]		
Guan WJ et al.	1	50	27	1540	18.5%	1.14 [0.16, 8.23]		
Liu Y et al. (a)	2	33	5	212	28.2%	2.57 [0.52, 12.71]		
Total (95% CI)		196		1913	100.0%	1.47 [0.63, 3.42]		
Total events	8		38					
Heterogeneity: Tau <sup>z</sup> =	= 0.00; Chi <sup>z</sup>	= 0.67,	df = 2 (P	= 0.72)	; I² = 0%			5 20
Test for overall effect	: Z = 0.88 (F	P = 0.38)	)				0.05 0.2 1 5 Lower risk of mortality Higher risk of m	



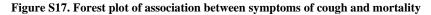
	Non-surv	ivors	Surviv	ors		Risk Ratio		Risk	Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl		M-H, Rand	om, 95% Cl	
Chen T et al. (a)	1	113	1	161	38.3%	1.42 [0.09, 22.54]				
Wang L et al. (b)	1	65	4	274	61.7%	1.05 [0.12, 9.27]				
Total (95% CI)		178		435	100.0%	1.18 [0.21, 6.53]				
Total events	2		5							
Heterogeneity: Tau <sup>2</sup> :	= 0.00; Chi <sup>z</sup>	= 0.03,	df = 1 (P :	= 0.87)	; I² = 0%		0.05	0.2		20
Test for overall effect	: Z = 0.19 (F	P = 0.85)	)				0.05		Higher risk of mortality	20



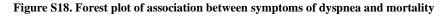
	Non-surv	Surviv	ors		Risk Ratio	Risk Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Cao J et al.	12	17	61	85	1.6%	0.98 [0.70, 1.37]	
Chen T et al. (a)	104	113	145	161	32.9%	1.02 [0.95, 1.10]	
Du RH et al.	21	21	156	158	41.2%	0.99 [0.93, 1.06]	<b>_</b>
Wu Cietial.	39	44	149	157	14.6%	0.93 [0.84, 1.04]	
Xu B et al.	23	28	96	117	4.9%	1.00 [0.83, 1.21]	
Yao Q et al.	8	12	72	96	1.1%	0.89 [0.59, 1.35]	· · · · · ·
Zhang J et al.	19	25	508	638	3.7%	0.95 [0.76, 1.19]	
Total (95% CI)		260		1412	100.0%	0.99 [0.95, 1.03]	+
Total events	226		1187				
Heterogeneity: Tau <sup>2</sup> =	= 0.00; Chi <sup>z</sup>	= 2.26,	df = 6 (P :	= 0.89)	I²=0%		
Test for overall effect	Z = 0.41 (F	P = 0.68)	)	0.7 0.85 1 1.2 1.5 Lower risk of mortality Higher risk of mortality			



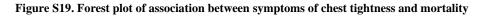
	Non-survivors Survivors			ors		Risk Ratio	Risk Ratio		
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl		
Cao J et al.	8	17	42	85	2.6%	0.95 [0.55, 1.65]			
Chen T et al. (a)	79	113	106	161	28.7%	1.06 [0.90, 1.25]			
Du RH et al.	14	21	132	158	8.0%	0.80 [0.59, 1.09]			
Wu C et al.	33	44	130	157	22.6%	0.91 [0.75, 1.09]			
Xu B et al.	23	28	89	117	19.3%	1.08 [0.88, 1.32]			
Yao Q et al.	10	12	74	96	10.2%	1.08 [0.82, 1.42]			
Zhang J et al.	16	25	394	638	8.6%	1.04 [0.77, 1.40]			
Total (95% CI)		260		1412	100.0%	1.00 [0.92, 1.09]	◆		
Total events	183		967						
Heterogeneity: Tau <sup>2</sup> = 0.00; Chi <sup>2</sup> = 4.63, df = 6 (P = 0.59); l <sup>2</sup> = 0%									
Test for overall effect	: Z = 0.03 (F	P = 0.98)	)	0.2 0.5 1 2 5 Lower risk of mortality Higher risk of mortality					



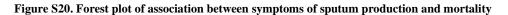
	Non-surv	vivors Survivors		Risk Ratio			Risk Ratio					
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl			M-H, Rando	om, 95% Cl		
Chen T et al. (a)	70	113	50	161	22.9%	1.99 [1.52, 2.62]				<b>─</b>		
Du RH et al.	18	21	71	158	26.5%	1.91 [1.49, 2.44]				<b></b>		
Wu Clet al.	29	44	51	157	18.8%	2.03 [1.49, 2.77]						
Xie J et al.	26	36	43	104	19.2%	1.75 [1.29, 2.37]				<b>─</b>		
Yao Q et al.	6	12	9	96	3.1%	5.33 [2.30, 12.36]						$\rightarrow$
Zhang J et al.	11	25	150	638	9.5%	1.87 [1.18, 2.98]						
Total (95% CI)		251		1314	100.0%	1.98 [1.70, 2.30]				•		
Total events	160		374									
Heterogeneity: Tau <sup>z</sup> =	= 0.29)	i <sup>z</sup> = 19%						-				
Test for overall effect:				0.1	0.2 Lower ri	0.5 isk of mortality	I ∠ Higherrisk of mo	ortality	10			



	Non-survivors		Survivors		Risk Ratio			Risk R	tatio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl		M-H, Random, 95% Cl		
Chen T et al. (a)	55	113	48	161	75.7%	1.63 [1.21, 2.21]				
Zhang J et al.	6	25	148	638	24.3%	1.03 [0.51, 2.11]				
Total (95% CI)		138		799	100.0%	1.46 [0.99, 2.15]		-		
Total events	61		196							
Heterogeneity: Tau <sup>2</sup> = 0.03; Chi <sup>2</sup> = 1.34, df = 1 (P = 0.25); I <sup>2</sup> = 26%							0.2	0.5 1		
Test for overall effect	= 0.05)	)				0.2	Lower risk of mortality	∠ Higher risk of mortality	5	



	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	35	113	48	161	26.0%	1.04 [0.72, 1.49]	<b>_</b>
Du RH et al.	12	21	43	158	21.2%	2.10 [1.34, 3.29]	
Wu C et al.	19	44	64	157	24.5%	1.06 [0.72, 1.56]	
Yao Q et al.	5	12	29	96	11.2%	1.38 [0.66, 2.88]	
Zhang J et al.	9	25	157	638	17.1%	1.46 [0.85, 2.51]	· · · · · · · · · · · · · · · · · · ·
Total (95% CI)		215		1210	100.0%	1.33 [1.00, 1.76]	-
Total events	80		341				
Heterogeneity: Tau <sup>2</sup> =	= 0.05; Chi <sup>z</sup>	= 7.31,	df = 4 (P	= 0.12)	; I <sup>z</sup> = 45%		
Test for overall effect							0.2 0.5 1 2 5 Lower risk of mortality Higher risk of mortality



	Non-surv	ivors	Surviv	ors		Risk Ratio		Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl		M-H, Random, 95% Cl
Cao J et al.	9	17	47	85	14.3%	0.96 [0.59, 1.56]		
Chen T et al. (a)	64	113	73	161	62.1%	1.25 [0.99, 1.58]		<b>⊢∎</b> −
Zhang J et al.	9	25	199	638	11.9%	1.15 [0.68, 1.97]		
Zhou F et al.	15	54	29	137	11.7%	1.31 [0.77, 2.25]		
Total (95% CI)		209		1021	100.0%	1.20 [1.00, 1.44]		◆
Total events	97		348					
Heterogeneity: Tau <sup>2</sup> =	= 0.00; Chi <sup>z</sup>	= 1.07,	df = 3 (P :	= 0.79)	; I <b>²</b> = 0%		<u> </u>	
Test for overall effect	: Z = 1.92 (F	P = 0.05)	)				0.2	0.5 1 2 5 Lower risk of mortality Higher risk of mortality

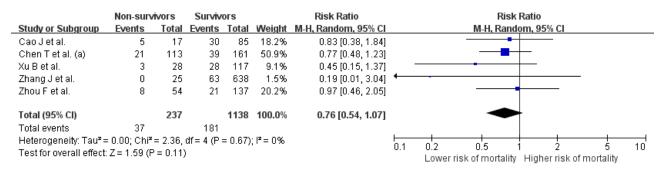


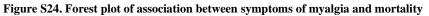
	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	31	113	35	161	27.6%	1.26 [0.83, 1.92]	
Wang L et al. (b)	15	65	79	274	24.0%	0.80 [0.49, 1.30]	
Xu B et al.	27	28	91	117	48.4%	1.24 [1.10, 1.40]	
Total (95% CI)		206		552	100.0%	1.12 [0.81, 1.55]	
Total events	73		205				
Heterogeneity: Tau <sup>2</sup> =	= 0.05; Chi <sup>z</sup>	= 5.61,	df = 2 (P :	= 0.06)	; <b>I²</b> = 64%	I.	
Test for overall effect	: Z = 0.70 (F	= 0.48)					0.2 0.5 1 2 5 Lower risk of mortality Higher risk of mortality



	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Cao J et al.	3	17	8	85	7.2%	1.88 [0.55, 6.35]	
Chen T et al. (a)	27	113	50	161	66.5%	0.77 [0.51, 1.15]	
Xu B et al.	6	28	28	117	17.7%	0.90 [0.41, 1.95]	
Yao Q et al.	1	12	7	96	2.7%	1.14 [0.15, 8.51]	
Zhang J et al.	0	25	61	638	1.4%	0.20 [0.01, 3.14]	· · · · · · · · · · · · · · · · · · ·
Zhou F et al.	2	54	7	137	4.5%	0.72 [0.16, 3.38]	
Total (95% CI)		249		1234	100.0%	0.83 [0.60, 1.16]	•
Total events	39		161				
Heterogeneity: Tau <sup>2</sup> =	= 0.00; Chi <sup>z</sup>	= 3.10,	df = 5 (P	= 0.68)	; I <b>²</b> = 0%		
Test for overall effect	: Z = 1.09 (F	P = 0.27)	)				0.02 0.1 1 10 50 Lower risk of mortality Higher risk of mortality

Figure S23. Forest plot of association between symptoms of diarrhea and mortality

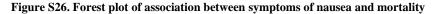




	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	10	113	11	161	53.7%	1.30 [0.57, 2.95]	
Xu Bietial.	5	28	10	117	36.9%	2.09 [0.78, 5.63]	
Zhang J et al.	1	25	22	638	9.4%	1.16 [0.16, 8.27]	
Total (95% CI)		166		916	100.0%	1.53 [0.84, 2.79]	
Total events	16		43				
Heterogeneity: Tau <sup>2</sup> = Test for overall effect:				= 0.73)	; I² = 0%		
							Lower risk of mortality Higher risk of mortality



	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	8	113	16	161	41.6%	0.71 [0.32, 1.61]	
Xu B et al.	7	28	11	117	40.5%	2.66 [1.13, 6.24]	<b></b>
Zhang J et al.	1	25	30	638	18.0%	0.85 [0.12, 5.99]	
Total (95% CI)		166		916	100.0%	1.25 [0.46, 3.40]	
Total events	16		57				
Heterogeneity: Tau² =	= 0.45; Chi <sup>z</sup>	= 5.13,	df = 2 (P	= 0.08)	; I <sup>z</sup> = 61 %	1	
Test for overall effect:	: Z = 0.44 (F	P = 0.66)	)				Lower risk of mortality Higher risk of mortality



	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	11	113	20	161	41.8%	0.78 [0.39, 1.57]	
Du RH et al.	5	21	12	158	33.2%	3.13 [1.23, 8.01]	<b>_</b>
Xu Bietial.	1	28	5	117	11.7%	0.84 [0.10, 6.87]	
Yao Q et al.	0	12	1	96	5.9%	2.49 [0.11, 57.91]	
Zhang J et al.	0	25	20	638	7.4%	0.60 [0.04, 9.64]	· · · · ·
Total (95% CI)		199		1170	100.0%	1.31 [0.59, 2.93]	
Total events	17		58				
Heterogeneity: Tau² =	0.28; Chi²	= 6.24,	df = 4 (P	= 0.18)	; I <b>²</b> = 36%		
Test for overall effect:	Z=0.67 (P	= 0.51)	)				0.05 0.2 1 5 20 Lower risk of mortality Higher risk of mortality

Figure S27. Forest plot of association between symptoms of headache and mortality

	Non-surv	ivors	Surviv	ors		Risk Ratio		Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl		M-H, Random, 95% Cl
Chen T et al. (a)	6	113	10	161	72.6%	0.85 [0.32, 2.28]		<b></b>
Yang X et al. (b)	1	32	1	20	9.5%	0.63 [0.04, 9.44]	←	
Zhang J et al.	1	25	16	638	17.9%	1.59 [0.22, 11.56]		
Total (95% Cl)		170		819	100.0%	0.93 [0.40, 2.14]		
Total events	8		27					
Heterogeneity: Tau <sup>2</sup> =	= 0.00; Chi <sup>z</sup>	= 0.40,	df = 2 (P	= 0.82)	; I² = 0%			
Test for overall effect	: Z = 0.18 (P	= 0.86)	)				0.1	0.2 0.5 1 2 5 10 Lower risk of mortality Higher risk of mortality



	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	4	113	8	161	40.9%	0.71 [0.22, 2.31]	
Wang L et al. (b)	3	65	10	274	35.5%	1.26 [0.36, 4.47]	
Xu B et al.	2	28	6	117	23.6%	1.39 [0.30, 6.54]	
Total (95% CI)		206		552	100.0%	1.02 [0.48, 2.17]	
Total events	9		24				
Heterogeneity: Tau <sup>z</sup> =	= 0.00; Chi <sup>z</sup>	= 0.63,	df = 2 (P	= 0.73)	; I <b>ž</b> = 0%		
Test for overall effect:	Z=0.06 (F	P = 0.95)	)				0.1 0.2 0.5 1 2 5 10 Lower risk of mortality Higher risk of mortality

# Figure S29. Forest plot of association between symptoms of pharyngalgia and mortality

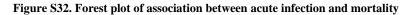
	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	4	113	3	161	73.9%	1.90 [0.43, 8.32]	
Du RH et al.	0	21	10	158	26.1%	0.34 [0.02, 5.67]	•
Total (95% CI)		134		319	100.0%	1.22 [0.27, 5.51]	
Total events	4		13				
Heterogeneity: Tau <sup>2</sup> = Test for overall effect:	•		-	= 0.28)	; I² = 15%		0.05 0.2 1 5 20 Lower risk of mortality Higher risk of mortality

# Figure S30. Forest plot of association between symptoms of hemoptysis and mortality

	Non-surv	ivors	Surviv	ors		Risk Ratio		Risk	Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl		M-H, Rand	om, 95% Cl	
Cao J et al.	7	17	3	85	37.5%	11.67 [3.35, 40.65]				
Chen T et al. (a)	46	113	0	161	26.2%	132.16 [8.23, 2122.49]				
Wang L et al. (b)	3	65	5	274	36.4%	2.53 [0.62, 10.31]		—		
Total (95% CI)		195		520	100.0%	12.62 [1.25, 127.06]				
Total events	56		8							
Heterogeneity: Tau <sup>2</sup> = Test for overall effect	-			P = 0.00	)3); I <sup>z</sup> = 83	2%	0.002	0.1 Lower risk of mortality	Higher risk of mortality	500



	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Cao J et al.	14	17	3	85	24.9%	23.33 [7.51, 72.45]	<b>_</b>
Wang L et al. (b)	49	65	94	274	28.6%	2.20 [1.77, 2.72]	+
Xu B et al.	11	28	9	117	26.8%	5.11 [2.34, 11.12]	
Zhou F et al.	27	54	1	137	19.7%	68.50 [9.54, 491.65]	
Total (95% CI)		164		613	100.0%	9.78 [2.05, 46.66]	
Total events	101		107				
Heterogeneity: Tau <sup>2</sup> :	= 2.21; Chi <sup>z</sup>	= 44.99	l, df = 3 (F	• < 0.00	0001); I <sup>z</sup> =	93%	
Test for overall effect	: Z = 2.86 (F	P = 0.00	4)				0.002 0.1 1 10 500 Lower risk of mortality Higher risk of mortality



	Non-surv	/ivors	Surviv	ors		Risk Ratio		Risk	Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl		M-H, Rando	om, 95% Cl	
Cao J et al.	15	17	5	85	16.4%	15.00 [6.30, 35.73]				
Chen T et al. (a)	28	113	1	161	4.9%	39.89 [5.51, 288.97]			· · · · ·	
Richardson S et al.	347	481	176	1869	35.4%	7.66 [6.59, 8.91]			-	
Wang L et al. (b)	17	65	11	274	20.1%	6.51 [3.21, 13.23]			<b>_</b>	
Yao Q et al.	7	12	9	96	18.2%	6.22 [2.84, 13.64]			<b>_</b>	
Zhou F et al.	27	54	1	137	5.0%	68.50 [9.54, 491.65]				
Total (95% CI)		742		2622	100.0%	9.64 [6.01, 15.45]			•	
Total events	441		203							
Heterogeneity: Tau <sup>2</sup> =	= 0.16; Chi <sup>z</sup>	= 11.14	, df = 5 (F	P = 0.05	5); <b>I<sup>2</sup> = 5</b> 59	6				
Test for overall effect	:Z=9.41 (F	° < 0.00	001)				0.005	0.1 1 Lower risk of mortality	1 10 Higher risk of mortality	200



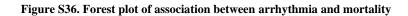
	Non-surv	ivors	Surviv	ors		Risk Ratio		Risk	Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl		M-H, Rand	om, 95% Cl	
Cao J et al.	12	17	3	85	11.7%	20.00 [6.31, 63.35]			· · · · · · · · · · · · · · · · · · ·	
Chen T et al. (a)	72	94	18	109	24.2%	4.64 [3.00, 7.18]				
Guo T et al.	31	43	21	144	24.2%	4.94 [3.19, 7.65]				
Shi S et al.	42	57	40	359	26.2%	6.61 [4.75, 9.21]				
Yao Q et al.	6	12	2	96	8.4%	24.00 [5.44, 105.80]			· · · · ·	
Zhou F et al.	32	54	1	137	5.4%	81.19 [11.38, 579.41]				
Total (95% CI)		277		930	100.0%	8.22 [4.95, 13.67]			•	
Total events	195		85							
Heterogeneity: Tau <sup>2</sup> =	= 0.23; Chi <sup>z</sup>	= 17.70	), df = 5 (F	P = 0.00	)3); <b>I<sup>z</sup> =</b> 72	2%	0.005	0.4		
Test for overall effect	: Z = 8.13 (F	P < 0.00	001)				0.005	0.1 Lower risk of mortality	1 10 Higher risk of mortality	200



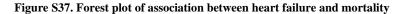
	Non-surv	ivors	Surviv	ors		Risk Ratio		Risk	Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl		M-H, Rand	om, 95% Cl	
Cao J et al.	15	17	5	85	18.2%	15.00 [6.30, 35.73]				
Chen T et al. (a)	113	113	83	161	21.2%	1.93 [1.66, 2.24]			+	
Wang L et al.	56	65	15	274	20.2%	15.74 [9.53, 25.99]				
Yao Q et al.	12	12	33	96	20.9%	2.78 [2.07, 3.74]				
Zhou F et al.	50	54	9	137	19.5%	14.09 [7.46, 26.62]				
Total (95% CI)		261		753	100.0%	6.82 [2.56, 18.18]				
Total events	246		145							
Heterogeneity: Tau <sup>2</sup> =	= 1.18; Chi <sup>z</sup>	= 140.8	9, df = 4	= 97%	L					
Test for overall effect	: Z = 3.84 (F	° = 0.00	01)				0.005	0.1 Lower risk of mortality	1 10 Higher risk of mortality	200

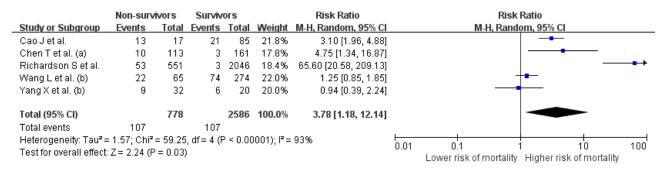


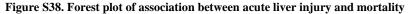
	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	I M-H, Random, 95% Cl
Cao J et al.	12	17	6	85	48.0%	10.00 [4.36, 22.94]	.j — <b>—</b> —
Wang L et al. (b)	13	65	22	274	52.0%	2.49 [1.33, 4.68]	ı]
Total (95% CI)		82		359	100.0%	4.86 [1.24, 19.02]	
Total events	25		28				
Heterogeneity: Tau <sup>2</sup> =	= 0.83; Chi <sup>z</sup>	= 6.87,	df = 1 (P	= 0.009	9); I <sup>2</sup> = 859	Ж	
Test for overall effect	: Z = 2.27 (F	P = 0.02)					0.02 0.1 1 10 50 Lower risk of mortality Higher risk of mortality



	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	41	83	3	94	14.6%	15.48 [4.98, 48.13]	
Peng YD et al.	13	17	27	95	29.6%	2.69 [1.78, 4.07]	_ <b>_</b>
Wang Letal. (b)	25	65	33	274	28.9%	3.19 [2.05, 4.98]	
Zhou F et al.	28	54	16	137	26.9%	4.44 [2.62, 7.52]	
Total (95% CI)		219		600	100.0%	4.18 [2.37, 7.36]	•
Total events	107		79				
Heterogeneity: Tau <sup>2</sup> :	= 0.24; Chi <sup>z</sup>	= 12.58	3, df = 3 (F	P = 0.00	06); <b>I<sup>2</sup> =</b> 76	6%	
Test for overall effect							0.01 0.1 1 10 100 Lower risk of mortality Higher risk of mortality







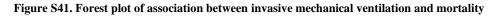
	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	113	113	66	161	41.3%	2.43 [2.02, 2.92]	
Yao Q et al.	11	12	24	96	19.1%	3.67 [2.49, 5.40]	<b>_</b>
Zhou F et al.	54	54	58	137	39.6%	2.34 [1.92, 2.84]	
Total (95% Cl)		179		394	100.0%	2.59 [2.11, 3.17]	•
Total events	178		148				
Heterogeneity: Tau <sup>2</sup> =	= 0.02; Chi <sup>z</sup>	= 4.37,	df = 2 (P	= 0.11)	; I² = 54%		
Test for overall effect	: Z = 9.20 (F	° < 0.00I	001)				Lower risk of mortality Higher risk of mortality

#### Figure S39. Forest plot of association between sepsis and mortality

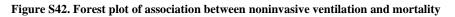
	Non-surv	ivors	Surviv	Survivors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Cao J et al.	5	17	1	85	17.3%	25.00 [3.11, 200.70]	]
Chen T et al. (a)	3	113	0	161	8.6%	9.95 [0.52, 190.72]	
Richardson S et al.	78	553	3	2081	57.0%	97.84 [31.00, 308.79]	j   — <b></b>
Yao Q et al.	1	12	0	96	7.6%	22.38 [0.96, 521.23]	
Zhou F et al.	10	54	0	137	9.5%	52.69 [3.14, 883.78]	j                       • • • • • • • •
Total (95% CI)		749		2560	100.0%	53.46 [22.45, 127.28]	
Total events	97		4				
Heterogeneity: Tau <sup>2</sup> :	= 0.00; Chi <sup>z</sup>	= 3.27,	df = 4 (P				
Test for overall effect	: Z = 8.99 (F	° < 0.00i	001)		0.002 0.1 1 10 50 Lower risk of mortality Higher risk of mortality		

Figure S40. Forest plot of association between renal replacement therapy and mortality

	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Cao J et al.	12	17	2	85	4.9%	30.00 [7.37, 122.08]	
Chen T et al. (a)	17	113	0	161	1.2%	49.74 [3.02, 818.64]	· →
Richardson S et al.	282	553	38	2081	90.3%	27.93 [20.17, 38.67]	
Wu C et al.	5	44	0	157	1.2%	38.62 [2.18, 685.32]	<b>_</b>
Xu Bietial.	9	28	0	117	1.2%	77.31 [4.63, 1290.11]	<b>_</b>
Yao Q et al.	10	12	0	96	1.2%	156.69 [9.75, 2519.04]	→
Total (95% Cl)		767		2697	100.0%	29.30 [21.50, 39.92]	•
Total events	335		40				
Heterogeneity: Tau <sup>2</sup> =	= 0.00; Chi <sup>2</sup>	= 2.14,	df = 5 (P	= 0.83)	; I² = 0%		
Test for overall effect	Z = 21.40	(P < 0.0	0001)			0.002 0.1 1 10 500 Lower risk of mortality Higher risk of mortality	



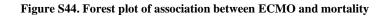
	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Cao J et al.	3	17	2	85	2.1%	7.50 [1.35, 41.54]	
Chen T et al. (a)	76	113	26	161	44.6%	4.16 [2.86, 6.06]	<b>_</b>
Wu C et al.	38	44	23	157	40.1%	5.90 [3.97, 8.75]	_ <b>_</b>
Xu Blet al.	13	28	9	117	11.3%	6.04 [2.87, 12.69]	
Yao Q et al.	2	12	2	96	1.8%	8.00 [1.24, 51.69]	<b>-</b>
Total (95% CI)		214		616	100.0%	5.12 [3.98, 6.57]	•
Total events	132		62				
Heterogeneity: Tau <sup>2</sup> =	= 0.00; Chi <sup>z</sup>	= 2.33,	df = 4 (P :	= 0.67)	; I² = 0%		
Test for overall effect							0.02 0.1 1 10 50 Lower risk of mortality Higher risk of mortality



	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	77	113	8	161	46.0%	13.71 [6.90, 27.26]	
Xu B et al.	2	28	1	117	5.6%	8.36 [0.79, 88.93]	· · · · · · · · · · · · · · · · · · ·
Yao Q et al.	0	12	4	96	3.9%	0.83 [0.05, 14.53]	
Zhou F et al.	33	54	8	137	44.4%	10.47 [5.17, 21.19]	
Total (95% CI)		207		511	100.0%	10.60 [5.97, 18.82]	•
Total events	112		21				
Heterogeneity: Tau <sup>2</sup> =	= 0.06; Chi <sup>z</sup>	= 3.61,	df = 3 (P :	= 0.31)	; I <sup>z</sup> = 17%		
Test for overall effect	: Z = 8.06 (F	° < 0.00	001)				0.02 0.1 1 10 50 Lower risk of mortality Higher risk of mortality



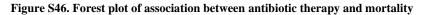
	Higher risk of me	Higher risk of mortality				Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Cao J et al.	1	17	2	85	48.1%	2.50 [0.24, 26.04]	
Chen T et al. (a)	1	113	0	161	25.9%	4.26 [0.18, 103.71]	<b>_</b>
Wu C et al.	1	44	0	157	26.0%	10.53 [0.44, 254.16]	
Total (95% CI)		174		403	100.0%	4.17 [0.82, 21.19]	
Total events	3		2				
Heterogeneity: Tau <sup>2</sup> =	= 0.00; Chi <sup>2</sup> = 0.51,	df = 2 (P :	= 0.77); l <sup>2</sup>				
Test for overall effect	: Z = 1.72 (P = 0.08)						0.01 0.1 1 10 100 Lower risk of mortality Higher risk of mortality



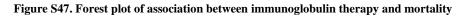
	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Cao J et al.	11	17	40	85	18.2%	1.38 [0.91, 2.09]	+
Chen T et al. (a)	99	113	118	161	23.7%	1.20 [1.06, 1.34]	-
Wu C et al.	23	44	39	157	18.8%	2.10 [1.42, 3.11]	<b>_</b>
Xu Bietial.	24	28	63	117	22.2%	1.59 [1.27, 2.00]	
Yao Q et al.	10	12	20	96	17.2%	4.00 [2.51, 6.37]	<b>_</b>
Total (95% CI)		214		616	100.0%	1.79 [1.25, 2.55]	-
Total events	167		280				
Heterogeneity: Tau <sup>z</sup> =	= 0.13; Chi <sup>z</sup>	= 33.13	, df = 4 (F	o < 0.00 ×	0001); I <sup>z</sup> =	88%	
Test for overall effect:	Z= 3.21 (P	= 0.00	1)				0.1 0.2 0.5 1 2 5 10 Lower risk of mortality Higher risk of mortality



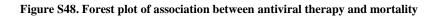
	Non-surv	ivors	Surviv	ors		Risk Ratio		Risk Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl		M-H, Random, 95% Cl	
Cao J et al.	17	17	84	85	21.6%	0.99 [0.91, 1.08]		-	
Chen T et al. (a)	105	113	144	161	21.9%	1.04 [0.97, 1.12]		+	
Wu C et al.	43	44	153	157	22.4%	1.00 [0.95, 1.06]		+	
Xu B et al.	28	28	92	117	20.8%	1.25 [1.13, 1.39]			
Yao Q et al.	12	12	36	96	13.3%	2.56 [1.93, 3.38]			
Total (95% CI)		214		616	100.0%	1.20 [1.02, 1.40]		◆	
Total events	205		509						
Heterogeneity: Tau <sup>2</sup> =	= 0.03; Chi <sup>z</sup>	= 63.17	, df = 4 (F	• < 0.00	0001); I <sup>z</sup> =	94%	<u> </u>		-
Test for overall effect	: Z = 2.23 (F	P = 0.03)	)				0.2	0.5 1 2 Lower risk of mortality Higher risk of mortality	5



	Non-surv	ivors	Contr	ol		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Cao J et al.	0	17	5	85	7.2%	0.43 [0.03, 7.51]	
Chen T et al. (a)	44	113	59	161	25.8%	1.06 [0.78, 1.45]	-
Xu B et al.	15	28	54	117	25.2%	1.16 [0.78, 1.73]	
Yao Q et al.	3	12	9	96	18.3%	2.67 [0.84, 8.51]	
Zhou F et al.	36	54	10	137	23.5%	9.13 [4.88, 17.08]	<b>_</b> _
Total (95% CI)		224		596	100.0%	2.00 [0.82, 4.88]	
Total events	98		137				
Heterogeneity: Tau <sup>2</sup> =	= 0.78; Chi <sup>z</sup>	= 41.60	, df = 4 (F	o < 0.00	)001); I <sup>z</sup> =	90%	
Test for overall effect:	•						0.02 0.1 1 10 50 Lower risk of mortality Higher risk of mortality



	Non-surv	ivors	Surviv	ors		Risk Ratio		Risk Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl		M-H, Random, 95% Cl	
Cao J et al.	17	17	83	85	27.2%	1.00 [0.92, 1.09]		+	
Chen T et al. (a)	89	113	147	161	26.6%	0.86 [0.78, 0.96]			
Wu C et al.	25	44	145	157	19.7%	0.62 [0.47, 0.80]		_ <b>-</b>	
Yao Q et al.	12	12	96	96	26.5%	1.00 [0.90, 1.12]		+	
Total (95% CI)		186		499	100.0%	0.87 [0.71, 1.08]		-	
Total events	143		471						
Heterogeneity: Tau <sup>2</sup> :	= 0.04; Chi <sup>z</sup>	= 36.17	, df = 3 (F	o.00 × ۹	0001); I <sup>z</sup> =	92%	<u> </u>		
Test for overall effect	:: Z = 1.26 (F	P = 0.21)	)				0.2	0.5 1 2 Lower risk of mortality Higher risk of mortality	



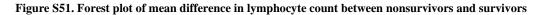
	Non	survivo	ors	Su	rvivors	s		Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
Chen T et al. (a)	10	5.56	113	5	1.94	161	24.8%	5.00 [3.93, 6.07]	
Chen T et al. (b)	11.7	17.62	19	7.2	9.26	36	1.3%	4.50 [-3.98, 12.98]	
Du RH et al.	8.93	6.6	21	5.4	2.62	158	9.1%	3.53 [0.68, 6.38]	
Wang L et al. (b)	9.04	6.05	65	5.82	2.5	274	19.5%	3.22 [1.72, 4.72]	
Wu C et al.	8.65	4.25	44	5.19	2.86	117	21.1%	3.46 [2.10, 4.82]	
Xu Betal.	7.16	4.18	28	5.34	2.44	117	18.3%	1.82 [0.21, 3.43]	
Yao Q et al.	9.67	4.47	12	5.91	5.12	13	5.9%	3.76 [-0.00, 7.52]	
Total (95% Cl)			302			876	100.0%	3.53 [2.53, 4.54]	•
Heterogeneity: Tau <sup>2</sup> =	= 0.76; C	hi <b>²</b> = 11	.48, df:	= 6 (P =	0.07);	l <sup>2</sup> = 48°	%		
Test for overall effect									-10 -5 0 5 Lower risk of mortality Higher risk of mortality

# Figure S49. Forest plot of mean difference in white blood cell count between nonsurvivors and survivors

	Non	survivo	rs	Su	vivors	5		Mean Difference		Mean Difference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Random, 95% Cl	
Chen T et al. (a)	9.03	5.48	113	3.37	1.57	161	22.3%	5.66 [4.62, 6.70]			
Chen T et al. (b)	9.5	15.22	19	6.1	9.26	36	2.1%	3.40 [-4.08, 10.88]			
Du RH et al.	7.4	6.76	21	4.2	2.62	158	9.6%	3.20 [0.28, 6.12]			
Wang L et al. (b)	7.91	5.6	65	4.2	2.49	274	19.4%	3.71 [2.32, 5.10]		<b></b>	
Wu Cietal.	7.73	4.18	44	3.55	2.65	117	20.0%	4.18 [2.85, 5.51]		_ <b>_</b>	
Xu B et al.	5.93	3.96	28	3.69	2.21	117	18.3%	2.24 [0.72, 3.76]			
Yao Q et al.	6.53	5.26	12	3.46	2.56	13	8.2%	3.07 [-0.22, 6.36]			
Total (95% CI)			302			876	100.0%	3.86 [2.74, 4.99]		•	
Heterogeneity: Tau <sup>2</sup> =	= 1.19; C	hi <b>²</b> = 15	.39, df :	= 6 (P =	0.02);	I <sup>2</sup> = 619	ж		H_		
Test for overall effect	Z= 6.73	) (P < 0.	00001)	-					-10	-5 0 5 Lower risk of mortality Higher risk of mortality	1



	Non-	survivo	rs	Su	vivors	5		Mean Difference		Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Random, 95% Cl
Chen T et al. (a)	0.57	0.23	113	1.03	0.52	161	20.6%	-0.46 [-0.55, -0.37]		+
Chen T et al. (b)	2.33	4.81	19	0.93	1.54	36	0.3%	1.40 [-0.82, 3.62]		
Du RH et al.	0.67	0.24	21	0.83	0.37	158	19.3%	-0.16 [-0.28, -0.04]		
Wang L et al. (b)	0.6	0.34	65	1.01	0.51	274	20.1%	-0.41 [-0.51, -0.31]		+
Wu C et al.	0.6	0.2	44	1.08	0.55	117	19.4%	-0.48 [-0.60, -0.36]		-
Xu B et al.	0.61	0.48	28	0.98	0.54	117	14.6%	-0.37 [-0.57, -0.17]		<b>—</b>
Yao Q et al.	0.99	0.8	12	0.79	0.26	13	5.6%	0.20 [-0.27, 0.67]		
Total (95% CI)			302			876	100.0%	-0.34 [-0.47, -0.21]		•
Heterogeneity: Tau <sup>2</sup> =	= 0.02; Cl	hi² = 27	'.80, df	= 6 (P =	: 0.000	01); l² =	78%		<u> </u>	
Test for overall effect	Z = 5.17	(P < 0	.00001	)					-2	-1 U Lower risk of mortality Higher risk of mortality



	Non-	survivo	ors	Su	rvivors	5		Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
Chen T et al. (a)	0.4	0.3	113	0.4	0.15	161	25.9%	0.00 [-0.06, 0.06]	-
Wang L et al. (b)	0.34	0.2	65	0.45	0.24	274	27.1%	-0.11 [-0.17, -0.05]	-
Wu Clet al.	0.3	0.19	44	0.34	0.14	117	25.4%	-0.04 [-0.10, 0.02]	
Xu B et al.	0.32	0.18	28	0.41	0.19	117	21.5%	-0.09 [-0.17, -0.01]	
Total (95% CI)			250			669	100.0%	-0.06 [-0.11, -0.01]	◆
Heterogeneity: Tau <sup>2</sup> = Test for overall effect	•			= 3 (P =	0.05);	l² = 629	6		-1 -0.5 0 0.5 1
restion overall effect	. 2 - 2.28	(F = 0	.02)						Lower risk of mortality Higher risk of mortality



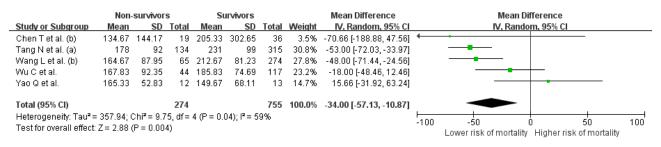
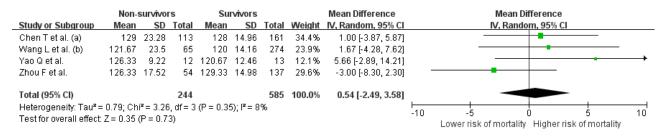
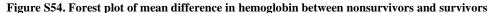


Figure S53. Forest plot of mean difference in platelet count between nonsurvivors and survivors





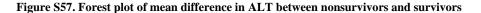
	Non-	survivo	rs	Su	rvivors			Mean Difference		Mean D	ifference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Rando	om, 95% Cl	
Chen T et al. (a)	30.33	3.83	113	36.5	4.34	161	25.8%	-6.17 [-7.14, -5.20]				
Chen T et al. (b)	32.67	12.01	19	34	13.13	36	8.6%	-1.33 [-8.23, 5.57]				_
Du RH et al.	33.33	3.5	21	33.9	5.61	158	23.7%	-0.57 [-2.30, 1.16]			<u> </u>	
Wu C et al.	28.95	4.1	44	33.65	4.02	117	24.7%	-4.70 [-6.11, -3.29]				
Yao Q et al.	31.07	5.03	12	37.17	3.99	13	17.1%	-6.10 [-9.68, -2.52]				
Total (95% Cl)			209			485	100.0%	-4.05 [-6.51, -1.59]				
Heterogeneity: Tau <sup>2</sup> =				= 4 (P ≺	0.0000	1); I <b>2</b> = (	87%		-10			i 10
Test for overall effect:	: Z = 3.22	? (P = 0.	001)							Lower risk of mortality	Higher risk of I	mortality

## Figure S55. Forest plot of mean difference in albumin between nonsurvivors and survivors

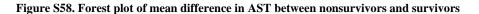
	Non	survivo	rs	Su	rvivor	s		Mean Difference		Mean Difference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Random, 95% Cl	
Chen T et al. (a)	12.9	5.48	113	8.47	4.04	161	67.3%	4.43 [3.24, 5.62]			
Du RH et al.	11.4	6.36	21	9.17	4.34	158	12.1%	2.23 [-0.57, 5.03]			
Wu Clet al.	14.88	7.24	44	10.92	3.79	117	18.8%	3.96 [1.71, 6.21]		<b>_</b>	
Yao Q et al.	12.93	11.82	12	12.03	5.48	13	1.8%	0.90 [-6.42, 8.22]			
Total (95% CI)			190			449	100.0%	4.01 [3.04, 4.99]		•	
Heterogeneity: Tau <sup>2</sup> = Test for overall effect:					l.44); P	°=0%			⊢ -10	-5 0 5 Lower risk of mortality Higher risk of mortality	10

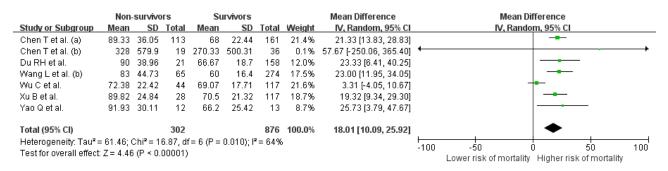


	Non	survivo	ors	S	urvivors			Mean Difference		Mean D	ifference		
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Rand	om, 95% Cl		
Chen T et al. (a)	31	21.78	113	22.27	12.87	161	21.0%	8.73 [4.25, 13.21]			-		
Chen T et al. (b)	49.33	62.48	19	109	209.23	36	0.3%	-59.67 [-133.57, 14.23]	•		+		
Du RH et al.	28	13.52	21	25.5	19.83	158	16.7%	2.50 [-4.06, 9.06]			<b></b>		
Wang L et al. (b)	30.67	22.74	65	29.33	19.38	274	17.8%	1.34 [-4.65, 7.33]			<b>▶</b> -		
Wu C et al.	37.33	24.52	44	28.83	17.64	117	14.2%	8.50 [0.58, 16.42]			⊢		
Xu B et al.	29.5	26.56	28	24.67	21.77	117	10.3%	4.83 [-5.77, 15.43]			+		
Yao Q et al.	20.67	4.61	12	22.77	8.06	13	19.7%	-2.10 [-7.20, 3.00]		-	•		
Total (95% CI)			302			876	100.0%	3.58 [-0.72, 7.87]			•		
Heterogeneity: Tau <sup>2</sup> =				f=6(P:	= 0.02); l <sup>a</sup>	²= 60%			-100	-50	0	50	100
Test for overall effect	. Z = 1.63	s (P = 0.	10)							Lower risk of mortalit	Higherris	k of mortalitv	

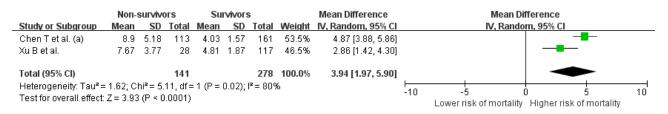


	Non	-survivor	s	S	urvivors			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
Chen T et al. (a)	47.67	27.03	113	26.1	9.95	161	25.4%	21.57 [16.35, 26.79]	
Chen T et al. (b)	88	120.15	19	94.67	145.92	36	0.5%	-6.67 [-78.72, 65.38]	· · · · · · · · · · · · · · · · · · ·
Du RH et al.	42.83	27.43	21	29.5	17.21	158	12.2%	13.33 [1.30, 25.36]	
Wang L et al. (b)	47	28.81	65	31.33	15.65	274	20.6%	15.67 [8.43, 22.91]	
Wu Cietial.	39.67	16.86	44	30.83	10.88	117	25.0%	8.84 [3.48, 14.20]	_ <b></b>
Xu B et al.	40	24.61	28	25.67	12.76	117	16.3%	14.33 [4.93, 23.73]	
Total (95% CI)			290			863	100.0%	14.84 [9.56, 20.11]	•
Heterogeneity: Tau² =				= 5 (P =	0.04); l² =	= 57%			-50 -25 0 25 5
Test for overall effect	: Z = 5.52	! (P < 0.0	0001)						Lower risk of mortality Higher risk of mortality





## Figure S59. Forest plot of mean difference in creatinine between nonsurvivors and survivors

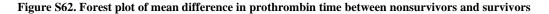


### Figure S60. Forest plot of mean difference in blood urea nitrogen between nonsurvivors and survivors

	Non-	survivo	ors	Su	rvivor	s		Mean Difference		Mean D	Difference		
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Rand	om, 95% Cl		
Wang L et al. (b)	9.7	6.22	65	5.33	2.31	274	42.4%	4.37 [2.83, 5.91]					
Wu C et al.	7.08	2.8	44	4.37	1.5	117	57.6%	2.71 [1.84, 3.58]			-		
Total (95% CI)			109			391	100.0%	3.41 [1.81, 5.02]					
Heterogeneity: Tau² = Test for overall effect					0.07);	l² = 719	Х		-10	-5 Lower risk of mortalit	0 y Higherrisk	5 of mortali	10 ty

#### Figure S61. Forest plot of mean difference in urea between nonsurvivors and survivors

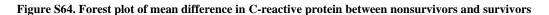
	Non-s	surviv	ors	Su	rvivors	5		Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
Du RH et al.	14.17	3.18	21	13.77	2.09	158	3.0%	0.40 [-1.00, 1.80]	
Tang N et al. (a)	16.5	8.4	134	14.6	2.1	315	2.9%	1.90 [0.46, 3.34]	
Wang L et al. (b)	12.97	1.67	65	12.07	0.75	274	34.3%	0.90 [0.48, 1.32]	
Wu Cietial.	11.72	1.03	44	10.73	1.05	117	46.0%	0.99 [0.63, 1.35]	
Xu B et al.	13.65	1.68	28	12.57	1.13	117	13.8%	1.08 [0.42, 1.74]	
Total (95% CI)			292			981	100.0%	0.98 [0.74, 1.22]	•
Heterogeneity: Tau <sup>2</sup>					0.65);	l² = 0%			-4 -2 0 2 4
Test for overall effect	: Z = 7.89	I (P < 0	.00001	)					Lower risk of mortality Higher risk of mortality



	Non-s	survivo	ors	Su	rvivors	s		Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
Chen T et al. (a)	41.03	8.49	113	40.63	5.31	161	26.2%	0.40 [-1.37, 2.17]	
Du RH et al.	36.7	8.51	21	35.1	6.14	158	19.3%	1.60 [-2.16, 5.36]	
Wang L et al. (b)	29.43	3.34	65	28.37	4.17	274	28.2%	1.06 [0.11, 2.01]	
Wu C et al.	24.9	4.67	44	29.38	5.48	117	26.4%	-4.48 [-6.18, -2.78]	_ <b>-</b> -
Total (95% CI)			243					-0.47 [-3.31, 2.37]	
Heterogeneity: Tau² = Test for overall effect:	•			'= 3 (P <	< 0.00(	001); I <sup>z</sup> :	= 91%		-10 -5 0 5 10 Lower risk of mortality Higher risk of mortality

Figure S63. Forest plot of mean difference in APTT between nonsurvivors and survivors

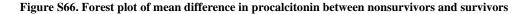
	Non	survivor	s	s	urvivors			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
Chen T et al. (a)	116.83	74.57	113	30.23	35.23	161	16.5%	86.60 [71.81, 101.39]	
Chen T et al. (b)	146.33	217.86	19	70.33	115.04	36	5.2%	76.00 [-28.92, 180.92]	
Du RH et al.	76.6	53.74	21	48.77	53.64	158	15.3%	27.83 [3.37, 52.29]	<b>_</b>
Wang L et al. (b)	116.1	97.42	65	46.63	51.2	274	15.3%	69.47 [45.02, 93.92]	
Wu C et al.	98.47	88.48	44	29.28	38.39	117	15.0%	69.19 [42.14, 96.24]	
Xu Betal.	88.65	54.54	28	24.11	35.53	117	15.8%	64.54 [43.34, 85.74]	
Yao Q et al.	38.33	12.33	12	25.57	15.61	13	16.9%	12.76 [1.77, 23.75]	
Total (95% CI)			302			876	100.0%	55.87 [27.27, 84.48]	-
Heterogeneity: Tau <sup>2</sup> = Test for overall effect				f= 6 (P	< 0.0000 <sup>-</sup>	1); I² = !	92%		

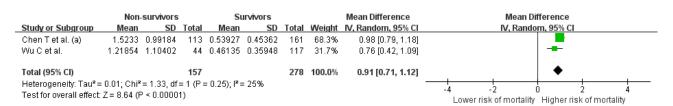


	Non	survivo	rs	Su	irvivors			Mean Difference		Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Random, 95% Cl
Chen T et al. (b)	5.6	12.04	19	6.73	14.45	36	4.9%	-1.13 [-8.31, 6.05]		
Du RH et al.	4	8.03	21	0.67	0.67	158	16.2%	3.33 [-0.11, 6.77]		
Tang N et al. (a)	9.04	14.67	134	2.14	2.52	315	23.7%	6.90 [4.40, 9.40]		+
Wang L et al. (b)	7.57	11.9	65	1.22	1.14	274	20.1%	6.35 [3.45, 9.25]		-
Wu C et al.	5.35	7.52	44	0.59	0.45	117	26.7%	4.76 [2.54, 6.98]		+
Xu B et al.	7.03	14.49	28	0.62	0.46	117	8.2%	6.41 [1.04, 11.78]		
Yao Q et al.	33.41	66.12	12	1.94	1.4	13	0.2%	31.47 [-5.95, 68.89]		
Total (95% CI)			323			1030	100.0%	5.26 [3.58, 6.93]		•
Heterogeneity: Tau <sup>2</sup> = Test for overall effect:			•	•	l.19); l² =	= 31%			-50	-25 0 25 5 Lower risk of mortality

#### Figure S65. Forest plot of mean difference in D-dimer between nonsurvivors and survivors

	Non-	surviv	ors	St	irvivors			Mean Difference	N	lean Difference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV,	Random, 95% Cl	
Chen T et al. (a)	0.37	0.38	113	0.05	0.04	161	28.5%	0.32 [0.25, 0.39]			
Chen T et al. (b)	3.08	6.41	19	0.36	0.77	36	0.2%	2.72 [-0.17, 5.61]			
Wang L et al. (b)	0.49	0.77	65	0.08	0.07	274	18.7%	0.41 [0.22, 0.60]		-	
Xu B et al.	0.25	0.32	28	0.04	0.04	117	24.6%	0.21 [0.09, 0.33]		-	
Yao Q et al.	2.75	4.75	12	0.25	0.25	13	0.2%	2.50 [-0.19, 5.19]			
Zhou F et al.	0.23	0.3	54	0.1	0.001	137	27.8%	0.13 [0.05, 0.21]		-	
Total (95% CI)			291			738	100.0%	0.27 [0.14, 0.40]		•	
Heterogeneity: Tau <sup>2</sup> = Test for overall effect					= 0.0008	8); I <b>2</b> = 7	6%		-2	0 2 ortality Higher risk of morta	2 ality





#### Figure S67. Forest plot of mean difference in ferritin between nonsurvivors and survivors

	Non	survivor	s	Su	irvivors			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
Chen T et al. (a)	570.43	213.87	113	266.27	76.45	161	32.4%	304.16 [263.00, 345.32]	
Chen T et al. (b)	468.67	498.2	19	383	320.41	36	6.8%	85.67 [-161.59, 332.93]	
Wang L et al. (b)	480.67	214.56	65	287	100.61	274	30.2%	193.67 [140.17, 247.17]	
Wu C et al.	467.83	166.68	44	262.83	82.19	117	30.6%	205.00 [153.55, 256.45]	
Total (95% CI)			241			588	100.0%	225.57 [153.85, 297.29]	•
Heterogeneity: Tau² = Test for overall effect:				f=3(P=	0.002); l <sup>a</sup>	'= 81%	1		-500 -250 0 250 500 Lower risk of mortality Higher risk of mortality

# Figure S68. Forest plot of mean difference in lactate dehydrogenase between nonsurvivors and survivors

Mean				irvivors			Mean Difference	Mean Difference
wean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
219.33	210.26	113	91.7	66.95	161	18.8%	127.63 [87.51, 167.75]	_ <b>_</b>
406.33	751.31	19	125.67	189.16	36	0.9%	280.66 [-62.77, 624.09]	
118.67	130.4	65	60	16.4	274	21.0%	58.67 [26.91, 90.43]	_ <del></del>
142.33	65.62	28	86.17	67.18	117	22.1%	56.16 [28.98, 83.34]	
97.7	52.16	12	106.17	85.96	13	15.1%	-8.47 [-63.74, 46.80]	
69.83	100.16	54	27.53	29.67	137	22.1%	42.30 [15.13, 69.47]	
		291			738	100.0%	59.34 [26.18, 92.50]	◆
1102.48;	Chi <sup>2</sup> = 2	0.04, df	= 5 (P =	0.001); P	<sup>2</sup> = 75%			
								-200 -100 0 100 200 Lower risk of mortality Higher risk of mortality
	406.33 118.67 142.33 97.7 69.83 1102.48;	142.33 65.62 97.7 52.16 69.83 100.16 1102.48; Chi <sup>≠</sup> = 2	406.33         751.31         19           118.67         130.4         65           142.33         65.62         28           97.7         52.16         12           69.83         100.16         54	406.33 751.31 19 125.67 118.67 130.4 65 60 142.33 65.62 28 86.17 97.7 52.16 12 106.17 69.83 100.16 54 27.53 291 1102.48; Chi <sup>a</sup> = 20.04, df = 5 (P =	406.33 751.31 19 125.67 189.16 118.67 130.4 65 60 16.4 142.33 65.62 28 86.17 67.18 97.7 52.16 12 106.17 85.96 69.83 100.16 54 27.53 29.67 291 1102.48; Chi <sup>z</sup> = 20.04, df = 5 (P = 0.001); P	406.33         751.31         19         125.67         189.16         36           118.67         130.4         65         60         16.4         274           142.33         65.62         28         86.17         67.18         117           97.7         52.16         12         106.17         85.96         13           69.83         100.16         54         27.53         29.67         137 <b>291 738</b> 1102.48; Chi <sup>2</sup> = 20.04, df = 5 (P = 0.001); i <sup>2</sup> = 75%	406.33         751.31         19         125.67         189.16         36         0.9%           118.67         130.4         65         60         16.4         274         21.0%           142.33         65.62         28         86.17         67.18         117         22.1%           97.7         52.16         12         106.17         85.96         13         15.1%           69.83         100.16         54         27.53         29.67         137         22.1%           291         738         100.0%           1102.48; Chi² = 20.04, df = 5 (P = 0.001); I² = 75%         12         10.11, I²         12	406.33       751.31       19       125.67       189.16       36       0.9%       280.66 [-62.77, 624.09]         118.67       130.4       65       60       16.4       274       21.0%       58.67 [26.91, 90.43]         142.33       65.62       28       86.17       67.18       117       22.1%       56.16 [28.98, 83.34]         97.7       52.16       12       106.17       85.96       13       15.1%       -8.47 [-63.74, 46.80]         69.83       100.16       54       27.53       29.67       137       22.1%       42.30 [15.13, 69.47] <b>291 738 100.0% 59.34 [26.18, 92.50]</b> 1102.48; Chi² = 20.04, df = 5 (P = 0.001); I² = 75%

# Figure S69. Forest plot of mean difference in creatine kinase between nonsurvivors and survivors

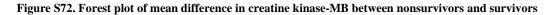
	Non	survivo	rs	Su	rvivors			Mean Difference		Mean D	ifference		
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Rand	om, 95% Cl		
Chen T et al. (a)	46.33	32.29	113	30.77	19.67	161	51.3%	15.56 [8.88, 22.24]					
Du RH et al.	27.17	20.27	21	33.5	28.06	158	48.7%	-6.33 [-16.04, 3.38]			+		
Total (95% CI)			134			319	100.0%	4.91 [-16.53, 26.35]				-	
Heterogeneity: Tau <sup>2</sup> = Test for overall effect				df=1 (P	= 0.00	03); I <b>²</b> =	92%		-50	-25 Lower risk of mortality		l 5 mortality	50

### Figure S70. Forest plot of mean difference in $\gamma$ -glutamyl transpeptidase between nonsurvivors and survivors

	Non	survivo	rs	Sı	irvivors			Mean Difference		Mean Difference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Random, 95% Cl	
Chen T et al. (a)	40.6	31.76	113	29.6	21.84	161	58.3%	11.00 [4.24, 17.76]			
Chen T et al. (b)	50	69.68	19	49.67	64.08	36	1.9%	0.33 [-37.35, 38.01]			
Wu C et al.	57.17	25.29	44	50.67	18.24	117	39.9%	6.50 [-1.67, 14.67]		+	
Total (95% CI)			176				100.0%	9.01 [3.85, 14.16]		▲	
Heterogeneity: Tau² = Test for overall effect:			•	2 (P = 0	1.64); I² =	= 0%			-50	-25 0 25 Lower risk of mortality Higher risk of mortalit	50 y

### Figure S71. Forest plot of mean difference in ESR between nonsurvivors and survivors

	Non	survivo	rs	Su	rvivors	5		Mean Difference		Mean Difference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Random, 95% Cl	
Wang Liet al.	2.85	2.27	65	1.29	0.82	274	40.8%	1.56 [1.00, 2.12]			
Wu C et al.	16.67	5.36	44	15.33	5.25	117	32.7%	1.34 [-0.51, 3.19]		+=-	
Xu B et al.	20.83	10.55	28	13.67	6	117	17.8%	7.16 [3.10, 11.22]		<b>_</b>	
Yao Q et al.	22.57	11.32	12	13.83	4.57	13	8.6%	8.74 [1.87, 15.61]			
Total (95% CI)			149			521	100.0%	3.11 [0.84, 5.37]		◆	
Heterogeneity: Tau² = Test for overall effect				= 3 (P =	0.010)	); <b>I</b> ² = 7∢	4%		-20	-10 0 10 Lower risk of mortality Higher risk of mortality	20



	Non	survivors		Su	irvivors			Mean Difference		Me	an Difference		
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, I	Random, 95% C	1	
Chen T et al. (a)	1.00243	1.07212	113	0.09233	0.12343	161	78.1%	0.91 [0.71, 1.11]					
Wang L et al. (a)	0.86433	1.09733	33	0.15733	0.18918	169	21.9%	0.71 [0.33, 1.08]					
Total (95% CI)			146			330	100.0%	0.87 [0.69, 1.04]			•		
Heterogeneity: Tau <sup>2</sup> = Test for overall effect				= 0.35); I <b>²</b> =	:0%				-4	-2	0	2	4
restion overall effect	verall effect. 2 = 3.07 (1 < 0.00001)								Lo	wer risk of mo	rtality Higher	risk of mo	ortality

## Figure S73. Forest plot of mean difference in NT-proBNP between nonsurvivors and survivors

	Non	survivo	s	Su	rvivors	6		Mean Difference		Mean Difference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Random, 95% Cl	
Chen T et al. (a)	71.1	107.46	113	4.07	3.82	161	38.2%	67.03 [47.21, 86.85]		<b>∎</b>	
Wang L et al. (b)	144	237.3	65	10.33	8.94	274	22.1%	133.67 [75.97, 191.37]		<b>_</b>	•
Zhou F et al.	36.97	59.03	54	3.2	3.3	137	39.6%	33.77 [18.02, 49.52]			
Total (95% CI)			232				100.0%	68.60 [29.29, 107.91]			
Heterogeneity: Tau² = Test for overall effect:				f = 2 (P :	= 0.00	06); I <b>²</b> =	87%		-200	-100 0 100 200 Lower risk of mortality Higher risk of mortality	0

# Figure S74. Forest plot of mean difference in hs-cTnI I between nonsurvivors and survivors

	Non	Non-survivors Survivors					Mean Difference	Mean Difference				
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Rand	om, 95% Cl	
Du RH et al.	184.43	233.98	21	36.03	33.52	158	62.0%	148.40 [48.19, 248.61]				
Wang L et al. (a)	l. (a) 243.5 374.69 33 37.7 20.79 169					169	38.0%	205.80 [77.92, 333.68]				
Total (95% CI)			54			327	100.0%	170.24 [91.36, 249.11]				
Heterogeneity: Tau² = 0.00; Chi² = 0.48, df = 1 (P = 0.49); l² = 0% Test for overall effect: Z = 4.23 (P < 0.0001)									⊢ -500	-250 Lower risk of mortalit	0250 VHigherrisk of n	

### Figure S75. Forest plot of mean difference in myoglobin between nonsurvivors and survivors

	Non-survivors Survivors					Mean Difference		Mean Difference				
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Rando	om, 95% Cl	
Wu C et al.	1.11	0.44	44	0.83	0.16	117	99.4%	0.28 [0.15, 0.41]				
Yao Q et al.	2.55	2.98	12	1.53	0.51	13	0.6%	1.02 [-0.69, 2.73]				
Total (95% CI)			56			130	100.0%	0.28 [0.15, 0.42]			•	
Heterogeneity: Tau <sup>2</sup> = 0.00; Chi <sup>2</sup> = 0.72, df = 1 (P = 0.40); l <sup>2</sup> = 0% Test for overall effect: Z = 4.20 (P < 0.0001)									-2	-1 Lower risk of mortality	 0 Higher risk of	1 2 mortality

### Figure S76. Forest plot of mean difference in cystatin C between nonsurvivors and survivors

	Non	survivor	s	S	urvivors			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
Chen T et al. (a)	84.8	83.5	113	14.4	16.61	161	24.1%	70.40 [54.79, 86.01]	
Chen T et al. (b)	212.67	330.8	19	116	216.95	36	4.2%	96.67 [-68.09, 261.43]	
Wang L et al. (b)	104	110.99	65	11.4	10.36	274	22.2%	92.60 [65.59, 119.61]	
Wu Cietial.	10.74	5.7	44	6.49	1.85	117	25.2%	4.25 [2.53, 5.97]	•
Xu B et al.	36.1	38.5	28	15.3	17.08	117	24.2%	20.80 [6.21, 35.39]	
Total (95% CI)			269			705	100.0%	47.77 [10.59, 84.95]	-
	eterogeneity: Tau² = 1428.79; Chi² = 113.79, df = 4 (P < 0.00001); l² est for overall effect: Z = 2.52 (P = 0.01)								-200 -100 0 100 2 Lower risk of mortality Higher risk of mortality



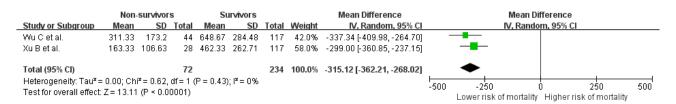


Figure S78. Forest plot of mean difference in CD3+ cell count between nonsurvivors and survivors

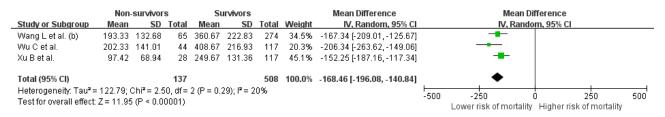
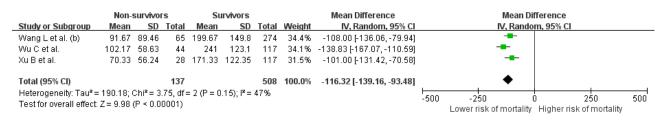


Figure S79. Forest plot of mean difference in CD4+ cell count between nonsurvivors and survivors

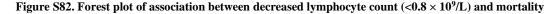




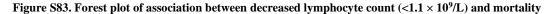
	Non-surv	Non-survivors Survivors				Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	56	113	6	161	26.2%	13.30 [5.93, 29.80]	<b>_</b>
Chen T et al. (b)	4	19	6	36	22.9%	1.26 [0.41, 3.94]	
Yao Q et al.				96	22.6%	24.00 [7.52, 76.61]	
Zhou F et al.	25	54	15	137	28.3%	4.23 [2.42, 7.38]	
Total (95% CI)		198		430	100.0%	6.41 [2.18, 18.82]	
Total events	94		30				
Heterogeneity: Tau <sup>2</sup> =	= 0.98; Chi <sup>z</sup>	= 18.35	i, df = 3 (F	e = 0.00	004); I <sup>z</sup> = 8	34%	
Test for overall effect:	Z = 3.38 (F	= 0.00	07)				0.01 0.1 1 10 100 Lower risk of mortality Higher risk of mortality

### Figure S81. Forest plot of association between increased white blood cell count (≥10 ×10<sup>9</sup>/L) and mortality

	Non-surv	survivors Survivors				Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	87	113	48	161	56.8%	2.58 [2.00, 3.34]	
Yao Q et al.	5	12	18	96	6.1%	2.22 [1.01, 4.89]	
Zhou F et al.	41	54	36	137	37.2%	2.89 [2.10, 3.97]	
Total (95% CI)		179		394	100.0%	2.67 [2.20, 3.24]	•
Total events	133		102				
Heterogeneity: Tau <sup>2</sup> =	•			= 0.77)	; I² = 0%		
Test for overall effect	Test for overall effect: Z = 9.91 (P < 0.00001)						Lower risk of mortality Higher risk of mortality



	Non-survivors Survivors					Risk Ratio	Risk Ratio						
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl			M-H, Ran	dom, 95%	CI		
Cao J et al.	11	17	54	85	23.1%	1.02 [0.69, 1.50]				• <u> </u>			
Du RH et al.	19	21	114	158	76.9%	1.25 [1.06, 1.49]							
Total (95% CI)		38		243	100.0%	1.20 [0.98, 1.46]				•			
Total events	30		168										
Heterogeneity: Tau <sup>2</sup> =				= 0.26)	; I <b>²</b> = 21%		⊢ 0.1	0.2	0.5	1 2	2	5	10
Test for overall effect	. Z = 1.75 (F	r = 0.08,	,					Lowerr	isk of mortalit	y Higherr	isk of I	mortality	



	Non-surv	on-survivors Survivors				Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (b)	5	19	4	36	38.8%	2.37 [0.72, 7.80]	
Yao Q et al.	1	12	9	96	27.0%	0.89 [0.12, 6.42]	
Zhou F et al.	11	54	2	137	34.3%	13.95 [3.20, 60.89]	
Total (95% CI)		85		269	100.0%	3.34 [0.75, 14.78]	
Total events	17		15				
Heterogeneity: Tau <sup>2</sup> =	= 1.12; Chi <sup>z</sup>	= 5.76,	df = 2 (P :	= 0.06)	; <b>I<sup>z</sup> = 65%</b>	1	
Test for overall effect	: Z = 1.59 (F	P = 0.11)	)				0.01 0.1 1 10 100 Lower risk of mortality Higher risk of mortality

Figure S84. Forest plot of association between decreased platelet count (<100  $\times$  10<sup>9</sup>/L) and mortality

	Non-survivors Survivors				Risk Ratio	Risk Ratio				
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl		M-H, Rando	om, 95% Cl	
Liu Y et al. (b)	21	49	47	334	47.1%	3.05 [2.01, 4.63]				
Yang X et al. (a)	173	238	133	1238	52.9%	6.77 [5.66, 8.09]			-	
Total (95% Cl)		287		1572	100.0%	4.65 [2.13, 10.15]			-	
Total events	194		180							
Heterogeneity: Tau <sup>2</sup> = Test for overall effect				P = 0.00	006); I² = 9	12%	⊢ 0.01	0.1 1 Lower risk of mortality	10 Higher risk of m	100 ortality

# Figure S85. Forest plot of association between decreased platelet count ( $<125 \times 10^9/L$ ) and mortality

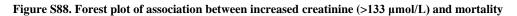
	Non-survivors Survivors					Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Cao J et al.	7	17	18	84	15.5%	1.92 [0.95, 3.87]	
Chen T et al. (a)	30	113	30	161	38.3%	1.42 [0.91, 2.22]	+- <b>-</b>
Zhou F et al.	26	54	33	135	46.2%	1.97 [1.31, 2.96]	<b></b> ■
Total (95% CI)		184		380	100.0%	1.73 [1.32, 2.28]	-
Total events	63		81				
Heterogeneity: Tau <sup>2</sup> =	= 0.00; Chi <sup>z</sup>	= 1.24,	df = 2 (P	= 0.54)	; I² = 0%		
Test for overall effect							0.1 0.2 0.5 1 2 5 10 Lower risk of mortality Higher risk of mortality

# Figure S86. Forest plot of association between increased ALT (>40 U/L) and mortality

	Non-surv	Non-survivors Survivors Events Total Events Total				Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	59	113	25	161	34.6%	3.36 [2.25, 5.02]	<b>_</b>
Chen T et al. (b)	14	19	18	36	34.0%	1.47 [0.97, 2.25]	<b>↓ ● −</b>
Du RH et al.	10	21	47	158	31.4%	1.60 [0.96, 2.66]	
Total (95% CI)		153		355	100.0%	2.01 [1.13, 3.58]	
Total events	83		90				
Heterogeneity: Tau <sup>2</sup> =	= 0.21; Chi <sup>z</sup>	= 10.18	, df = 2 (F	P = 0.00	06); <b>I<sup>z</sup> =</b> 80	)%	
Test for overall effect	: Z = 2.38 (F	P = 0.02)	)				0.1 0.2 0.5 1 2 5 10 Lower risk of mortality Higher risk of mortality

# Figure S87. Forest plot of association between increased AST (>40 U/L) and mortality

	Non-survivors Survivors					Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Yao Q et al.	1	12	3	96	29.0%	2.67 [0.30, 23.64]	
Zhou F et al.	5	54	3	132	71.0%	4.07 [1.01, 16.45]	
Total (95% CI)		66		228	100.0%	3.60 [1.11, 11.68]	
Total events	6		6				
Heterogeneity: Tau² =	= 0.00; Chi <sup>z</sup>	= 0.10,	df = 1 (P	= 0.75)	; I² = 0%		
Test for overall effect	: Z = 2.14 (P	'= 0.03)	)				Lower risk of mortality Higher risk of mortality

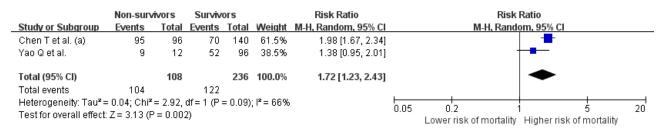


	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio			
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl		M-H, Rand	om, 95% Cl	
Chen T et al. (a)	35	96	3	140	75.3%	17.01 [5.39, 53.74]				_
Zhou F et al.	13	51	1	113	24.7%	28.80 [3.87, 214.31]				
Total (95% CI)		147		253	100.0%	19.38 [7.14, 52.57]				-
Total events	48		4							
Heterogeneity: Tau² =	= 0.00; Chi <sup>z</sup>	= 0.20,	df = 1 (P	= 0.66)	; I² = 0%		0.01	0.1	 1 10	100
Test for overall effect:	Z = 5.82 (P	< 0.00	001)				0.01	Lower risk of mortality		100

Figure S89. Forest plot of association between increased procalcitonin (≥0.5 ng/mL) and mortality

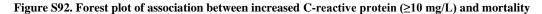
	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Cao J et al.	13	17	22	65	51.5%	2.26 [1.47, 3.47]	
Zhou F et al.	32	51	18	113	48.5%	3.94 [2.45, 6.32]	<b>_</b> _
Total (95% CI)		68		178	100.0%	2.96 [1.67, 5.25]	•
Total events	45		40				
Heterogeneity: Tau <sup>2</sup> =	•			= 0.07)	; I² = 69%		
Test for overall effect	: Z = 3.71 (H	' = 0.00	02)				Lower risk of mortality Higher risk of mortality

### Figure S90. Forest plot of association between increased procalcitonin (≥0.1 ng/mL) and mortality

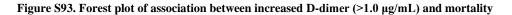


#### Figure S91. Forest plot of association between increased procalcitonin (≥0.05 ng/mL) and mortality

	Non-surv	ivors	Surviv	ors		Risk Ratio			Risk	Ratio			
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl			M-H, Rand	<u>om, 95% (</u>			
Cao J et al.	16	16	36	86	49.0%	2.31 [1.78, 3.00]				-			
Du RH et al.	20	21	138	158	51.0%	1.09 [0.97, 1.22]				┣━-			
Total (95% CI)		37		244	100.0%	1.58 [0.68, 3.63]							
Total events	36		174										
Heterogeneity: Tau <sup>2</sup> = Test for overall effect:				° < 0.00	)001); I² =	97%	⊢ 0.1	0.2 Lower ri	0.5 sk of mortality	Higherni 1	isk of morta	l 5 Ility	10



	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio						
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl			M-H, Rand	om, 95%	CI		
Yao Q et al.	9	12	31	96	44.5%	2.32 [1.50, 3.59]							
Zhou F et al.	44	54	28	118	55.5%	3.43 [2.43, 4.86]						_	
Total (95% CI)		66		214	100.0%	2.89 [1.94, 4.29]					-	1	
Total events	53		59										
Heterogeneity: Tau <sup>2</sup> : Test for overall effect				= 0.15)	; I² = 51%		⊢ 0.1	0.2	0.5	1 :	2	5	10
restion overall ellect	. Z – 0.25 (г	~ 0.00	001)					C	)-dimer >1 µg/ml	Higher	risk of mo	ortality	



	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Chen T et al. (a)	30	113	5	161	68.1%	8.55 [3.42, 21.36]	
Liu Y et al. (a)	4	33	4	211	31.9%	6.39 [1.68, 24.33]	
Total (95% CI)		146		372	100.0%	7.79 [3.66, 16.58]	•
Total events	34		9				
Heterogeneity: Tau <sup>2</sup> =	= 0.00; Chi <sup>z</sup>	= 0.13,	df = 1 (P	= 0.71)	; I² = 0%		
Test for overall effect	Z = 5.33 (F	° < 0.00	001)				0.01 0.1 1 10 100 Lower risk of mortality Higher risk of mortality

Figure S94. Forest plot of association between respiratory rate ≥30 breaths per min and mortality

	Non-surv	ivors	Surviv	ors		Risk Ratio			Risk	Ratio		
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl			M-H, Rande	om, 95% Cl		
Chen T et al. (a)	66	113	22	161	51.9%	4.27 [2.81, 6.49]						
Zhou F et al.	34	54	22	137	48.1%	3.92 [2.54, 6.05]						
Total (95% CI)		167		298	100.0%	4.10 [3.03, 5.54]					$\bullet$	
Total events	100		44									
Heterogeneity: Tau <sup>2</sup> :	= 0.00; Chi <sup>2</sup>	= 0.08,	df = 1 (P :	= 0.78)	; l² = 0%				0.5		<u>+</u>	10
Test for overall effect	: Z = 9.18 (F	° < 0.00I	001)				0.1	Lowerr	isk of mortality	Higherrisk	of mortality	10

# Figure S95. Forest plot of association between respiratory rate ≥24 breaths per min and mortality

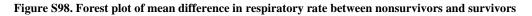
	Non-surv	ivors	Surviv	ors		Risk Ratio		Risk	Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl		M-H, Rando	om, 95% Cl	
Cao J et al.	14	17	58	85	1.9%	1.21 [0.93, 1.57]				
Chen T et al. (a)	113	113	152	161	81.6%	1.06 [1.02, 1.10]				
Yao Q et al.	12	12	86	96	8.0%	1.08 [0.95, 1.23]		-		
Zhang J et al.	20	25	530	638	3.3%	0.96 [0.79, 1.18]				
Zhou F et al.	45	54	98	137	5.2%	1.16 [0.99, 1.37]				
Total (95% CI)		221		1117	100.0%	1.06 [1.03, 1.10]			◆	
Total events	204		924							
Heterogeneity: Tau <sup>2</sup> =	= 0.00; Chi <sup>z</sup>	= 3.75,	df = 4 (P :	= 0.44)	; I <b>²</b> = 0%		L		4.5	<u> </u>
Test for overall effect:	Z= 3.34 (P	= 0.00	08)				0.5	0.7 1 Lower risk of mortality	1.5 Higher risk of mortality	2

# Figure S96. Forest plot of association between bilateral pneumonia and mortality

	Non-surv	ivors	Surviv	ors		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Wu C et al.	14	44	63	157	57.5%	0.79 [0.49, 1.27]	
Yao Q et al.	3	12	7	96	42.5%	3.43 [1.02, 11.52]	
Total (95% CI)		56		253	100.0%	1.48 [0.36, 6.12]	
Total events	17		70				
Heterogeneity: Tau <sup>2</sup> =	•			= 0.03)	; I² = 80%	1	0.01 0.1 1 10 100
Test for overall effect	. Z = 0.54 (F	r = 0.59,	)				Lower risk of mortality Higher risk of mortality

# Figure S97. Forest plot of association between highest temperature ≥39 °C and mortality

	Non-	survivo	rs	Su	vivors	5		Mean Difference	Mean Difference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl	
Chen T et al. (a)	24.67	7.51	113	20.33	0.75	161	26.4%	4.34 [2.95, 5.73]		
Du RH et al.	24.83	11.53	21	20.33	0.75	158	9.6%	4.50 [-0.43, 9.43]		—
Hu H et al.	23.21	5.38	19	20.27	3.27	86	19.7%	2.94 [0.42, 5.46]		
Wang L et al. (b)	23	9.1	65	19.33	1.49	274	21.4%	3.67 [1.45, 5.89]		
Yao Q et al.	20.33	2.52	12	20.33	2.49	13	22.9%	0.00 [-1.97, 1.97]	<b>+</b>	
Total (95% Cl)			230			692	100.0%	2.94 [1.10, 4.79]	-	
Heterogeneity: Tau² = 2.86; Chi² = 13.19, df = 4 (P = 0.01); l² = 70%									-10 -5 0 5	10
Test for overall effect: Z = 3.12 (P = 0.002)									Lower risk of mortality Higher risk of mortality	



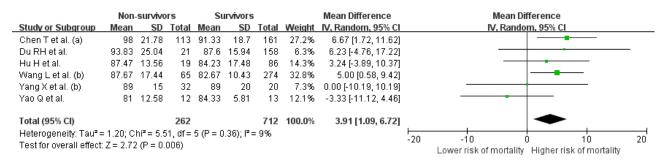
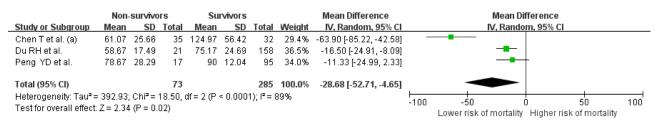
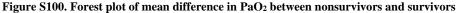


Figure S99. Forest plot of mean difference in heart rate between nonsurvivors and survivors





	Non-	surviva	ors	Su	rvivors	5		Mean Difference		Mean Di	fference		
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Rando	m, 95% Cl		
Chen T et al. (a)	31.93	5.49	35	37.93	4.89	32	59.3%	-6.00 [-8.49, -3.51]		<b>_</b>			
Du RH et al.	34.67	9.54	21	37.33	5.24	158	21.1%	-2.66 [-6.82, 1.50]			<u> </u>		
Peng YD et al.	37	8.89	17	41.67	4.52	95	19.6%	-4.67 [-8.99, -0.35]	_	•			
Total (95% CI)			73			285	100.0%	-5.03 [-6.95, -3.12]					
Heterogeneity: Tau <sup>2</sup> = Test for overall effect					0.40);	I² = 0%			⊢ -10	-5 ( Lower risk of mortality	) Higherrisk o	5 5	10

#### Figure S101. Forest plot of mean difference in PaCO<sub>2</sub> between nonsurvivors and survivors

	Non	survivo	rs	Su	vivors	5		Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
Chen T et al. (a)	84.67	14.27	113	96.77	2.02	161	34.3%	-12.10 [-14.75, -9.45]	]
Hu H et al.	86.53	12.46	19	96.17	3.1	86	30.6%	-9.64 [-15.28, -4.00]	
Peng YD et al.	95.33	3.23	17	96.33	2.26	95	35.1%	-1.00 [-2.60, 0.60]	I •
Total (95% CI)			149			342	<b>100.0</b> %	-7.45 [-15.86, 0.96]	▲
Heterogeneity: Tau² = Test for overall effect:			•	f= 2 (P	< 0.00	001); I <del>r</del>	= 96%		-100 -50 0 50 100 Lower risk of mortality Higher risk of mortality

### Figure S102. Forest plot of mean difference in SpO2 between nonsurvivors and survivors

	Non	survivor	s	Su	irvivors			Mean Difference		Mean Di	ifference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Rando	m, 95% Cl	
Chen T et al. (a)	117.13	71.5	35	329.67	151.33	32	25.5%	-212.54 [-270.07, -155.01]				
Du RH et al.	185.5	64.8	21	261.5	108.2	158	28.3%	-76.00 [-108.45, -43.55]				
Peng YD et al.	215.67	253.02	17	429.33	25.59	95	17.0%	-213.66 [-334.05, -93.27]				
Yang X et al. (b)	62.8	17.15	32	99.03	47.95	20	29.2%	-36.23 [-58.07, -14.39]		+		
Total (95% CI)			105			305	100.0%	-122.62 [-198.25, -46.98]		-		
Heterogeneity: Tau² = Test for overall effect:				f=3(P <	0.00001)	(; <b>I</b> ² = 9)	2%		-500	-250 ( Lower risk of mortality	H H 0 250 Higher risk of mortalit,	500 /



	Non-	survivo	ors	Su	rvivors	s		Mean Difference		Mean Di	fference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl		IV, Rando	m, 95% Cl	
Yang X et al. (b)	18	3.1	32	14.33	3.99	20	90.7%	3.67 [1.62, 5.72]				
Yao Q et al.	11.67	10.9	12	6	3.32	13	9.3%	5.67 [-0.76, 12.10]		-	-	
Total (95% CI)			44			33	100.0%	3.86 [1.90, 5.81]				
Heterogeneity: Tau² = Test for overall effect					0.56);	I² = 0%			-10	-5 Lower risk of mortality	l I 0 5 Higher risk of mo	10 rtality

Figure S104. Forest plot of mean difference in APACHE II score between nonsurvivors and survivors

	Non-	surviv	ors	Survivors				Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% CI
Yao Q et al.	4.33	5.03	12	2	1.66	13	2.0%	2.33 [-0.66, 5.32]	]
Zhou F et al.	4.83	1.52	54	1.33	0.75	137	98.0%	3.50 [3.08, 3.92]	1   🔳
Total (95% CI)			66			150	100.0%	3.48 [3.06, 3.90]	
Heterogeneity: Tau² = Test for overall effect				`	0.45);	I <sup>2</sup> = 0%			-10 -5 0 5 Lower risk of mortality Higher risk of mortality

# Figure S105. Forest plot of mean difference in SOFA score between nonsurvivors and survivors

.04 17 ( .51 113	Mean SD 5.33 3.02 9 4.49 10.24 7.51 10 4.47 6 3.32	85 161 86 274	Weight 10.5% 36.7% 4.6% 22.1%	V, Random, 95% Cl 0.34 [-1.68, 2.36] 1.00 [-0.08, 2.08] -1.87 [-4.92, 1.18] 0.33 [-1.07, 1.73]	IV, Random, 95% Cl
.51 113 .78 19 10 .31 65	9 4.49 10.24 7.51 10 4.47	161 86 274	36.7% 4.6%	1.00 [-0.08, 2.08] -1.87 [-4.92, 1.18]	
i.78 19 10 i.31 65	10.24 7.51 10 4.47	86 274	4.6%	-1.87 [-4.92, 1.18]	
i.31 65	10 4.47	274			
		- · ·	22.1%	0.33 [-1.07, 1.73]	<b>_</b>
.52 12	6 3 3 2				
	0 0.02	13	8.1%	1.33 [-0.97, 3.63]	
i.33 54 10	0.67 3.75	137	17.8%	0.66 [-0.89, 2.21]	
280		756	100.0%	0.62 [-0.04, 1.27]	◆
= 3.65, df = 5	5 (P = 0.60);	I <sup>2</sup> = 0%			-4 -2 0 2 4
		3.65, df = 5 (P = 0.60);	: 3.65, df = 5 (P = 0.60); l <sup>2</sup> = 0%	: 3.65, df = 5 (P = 0.60); l² = 0%	: 3.65, df = 5 (P = 0.60); I <sup>2</sup> = 0%

Figure S106. Forest plot of mean difference in Time from illness onset to hospital admission between nonsurvivors and

survivors