

1 Labs and Mortality Means

1.1 White Blood Cell Count and Mortality Means [10<sup>9</sup>/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [10 <sup>9</sup> /L]	SD [10 <sup>9</sup> /L]	Total	Mean [10 <sup>9</sup> /L]	SD [10 <sup>9</sup> /L]	Total		
Chen Sun Sun	6.3	4.2	82	4.8	1.78	578	2.9%	1.50 [0.58, 2.42]
Chen Wu Chen	10.2	5.48	113	5	1.926	161	2.7%	5.20 [4.15, 6.25]
Ciceri Castagna Rovere-Querini	7.5	4.67	93	6.31	2.63	311	2.8%	1.19 [0.20, 2.18]
Covino DeMatteis Santoro	5.93	3.26	23	5.78	1.98	46	2.4%	0.15 [-1.30, 1.60]
Deng Liu Liu	7.23	4.67	109	4.52	1.67	116	2.9%	2.71 [1.78, 3.64]
Du Liang Yang	8.9	6.25	21	5.1	2.62	42	1.3%	3.80 [1.01, 6.59]
Fan Wang Ye	7.2	6.55	3	5.3	2.95	17	0.3%	1.90 [-5.64, 9.44]
Foy Carlson Reinertsen	9.2	5.7	155	7.35	8.5	1043	2.8%	1.85 [0.81, 2.89]
Giacomelli Ridolfo Milazzo	6.7	3.137	48	5.5	2	185	2.8%	1.20 [0.27, 2.13]
Gribaldi Fiksel Muschelli	8.1	3.78	113	6.43	3.11	729	3.0%	1.67 [0.94, 2.40]
He Chen Chen	2.6	8.21	10	5.8	1.205	21	0.5%	-3.20 [-8.31, 1.91]
Hu Gan Li	9.9	3.96	39	6.5	2.15	56	2.4%	3.40 [2.04, 4.76]
Hu Liu Jiang	8.01	4.26	68	5.43	2	115	2.7%	2.58 [1.50, 3.66]
Li Chen Chen	9.1	4.32	15	5.8	2.74	87	1.7%	3.30 [1.04, 5.56]
Li Li Zheng	7.11	5.42	17	4.62	5.83	42	1.1%	2.49 [-0.63, 5.61]
Li Long Luo	8.99	3.48	65	4.97	1.25	96	2.9%	4.02 [3.14, 4.90]
Liu Song Zheng	10.27	8.06	34	5.74	1.84	302	1.3%	4.53 [1.81, 7.25]
Lu Chen Fan	9.3	6.1	31	5.6	2.8	92	1.7%	3.70 [1.48, 5.92]
Lu Lv Wu	6	3.6	26	5.5	3.3	95	2.3%	0.50 [-1.03, 2.03]
Luo Xia Yang	8.58	5.34	100	5.03	1.87	303	2.7%	3.55 [2.48, 4.62]
Mitra Fergusson Lloyd-Smith	8.5	3.93	18	8	3.63	99	1.9%	0.50 [-1.45, 2.45]
Pascual-Gomez Lobo Cremades	10.42	5.23	33	8.38	5.03	130	1.9%	2.04 [0.06, 4.02]
Qi Liu FallowField	4.6	2.151	5	4.28	1.553	16	1.8%	0.32 [-1.71, 2.35]
Ruan Yang Wang	10.62	4.76	68	6.76	3.49	82	2.4%	3.86 [2.50, 5.22]
Shahriarirad Khodamoradi Erfani	6.83	2.94	9	6	2.47	104	1.9%	0.83 [-1.15, 2.81]
Shang Du Lu	5.5	4.22	51	4.54	1.57	365	2.6%	0.96 [-0.21, 2.13]
Sun Wang Liu	13.9	5.925	57	10.7	4.35	12	1.2%	3.20 [0.30, 6.10]
Tu Cao Yu	6.88	6.41	25	4.22	2.03	149	1.5%	2.66 [0.13, 5.19]
Wang Li Li	9.4	3.19	15	7.1	2.15	101	2.1%	2.30 [0.63, 3.97]
Wang Lu Li	9.1	5.33	133	5.3	2.15	211	2.8%	3.80 [2.85, 4.75]
Wang Sheng Tu	8.14	4.77	21	5.07	1.99	113	1.8%	3.07 [1.00, 5.14]
Wang VanOekelen Mouhieddine	4.3	8.4	7	2.9	2.4	16	0.4%	1.40 [-4.93, 7.73]
Wang Zuo Liu	7.8	4.74	22	4.7	2.3	283	1.9%	3.10 [1.10, 5.10]
Wu Chen Cai	8.61	4.14	44	6.62	4.82	40	1.9%	1.99 [0.06, 3.92]
Xu Fan Wang	6.97	3.96	28	5.39	4.98	159	2.2%	1.58 [-0.08, 3.24]
Xu Yang Yang	8.2	4.37	146	7.2	3.85	92	2.7%	1.00 [-0.06, 2.06]
Yan Yang Wang	9.09	5.29	39	4.93	3.14	9	1.4%	4.16 [1.52, 6.80]
Yang Sheng Huang	7.4	6.6	40	5	2.22	165	1.8%	2.40 [0.33, 4.47]
Yin Zhou Zhang	7.92	4.2	52	8.03	5.61	60	2.0%	-0.11 [-1.93, 1.71]
Zhang Ding Cao	10.5	5.37	18	6.61	2.37	117	1.5%	3.89 [1.37, 6.41]
Zhang Guo Duan (cohort 1)	9.43	4.26	30	5.49	2.052	156	2.3%	3.94 [2.38, 5.50]
Zhang Guo Duan (training cohort)	8.13	3.56	96	5.32	2.25	420	3.0%	2.81 [2.07, 3.55]
Zhang Li Zhang	9.3	4.81	24	5.4	1.7	142	1.9%	3.90 [1.96, 5.84]
Zhang Sun Chen	6.7	5.08	46	4.7	1.78	273	2.3%	2.00 [0.52, 3.48]
Zhang Yang Li	5.4	3.18	17	5.74	2.44	31	2.1%	-0.34 [-2.08, 1.40]
Zhang Zhao Wu	8.6	4.74	86	5.4	3.41	176	2.7%	3.20 [2.08, 4.32]
Zhou Yu Du	9.8	5.185	54	5.2	2.52	137	2.4%	4.60 [3.15, 6.05]
Zhu Zhao Lai	6.4	2.8	17	4.6	2	308	2.5%	1.80 [0.45, 3.15]
<b>Total (95% CI)</b>			<b>2366</b>			<b>8403</b>	<b>100.0%</b>	<b>2.38 [1.97, 2.79]</b>

Heterogeneity: Tau<sup>2</sup> = 1.30; Chi<sup>2</sup> = 169.70, df = 47 (P < 0.00001); I<sup>2</sup> = 72%  
 Test for overall effect: Z = 11.41 (P < 0.00001)

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Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



1.2 Absolute Neutrophil Count and Mortality Means [10<sup>9</sup>/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [10 <sup>9</sup> /L]	SD [10 <sup>9</sup> /L]	Total	Mean [10 <sup>9</sup> /L]	SD [10 <sup>9</sup> /L]	Total		
Aries Davies Auer	5	9.6	12	2.1	7.6	17	0.6%	2.90 [-3.62, 9.42]
Brill Jarvis Ozcan	6.6	4.127	173	5.32	3.215	237	3.6%	1.28 [0.54, 2.02]
Chen Sun Sun	4.7	4.15	82	3.3	1.7	578	3.4%	1.40 [0.49, 2.31]
Chen Wu Chen	9	5.41	113	3.2	1.56	161	3.4%	5.80 [4.77, 6.83]
Ciceri Castagna Rovere-Querini	6.3	4	93	4.74	2.63	311	3.5%	1.56 [0.70, 2.42]
Du Liang Yang	7.7	6.41	21	3.9	2.59	158	2.0%	3.80 [1.03, 6.57]
Giacomelli Ridolfo Milazzo	5.7	3.361	48	3.9	1.852	185	3.4%	1.80 [0.81, 2.79]
He Chen Chen	0.7	3.38	10	3.4	1.36	21	2.4%	-2.70 [-4.87, -0.53]
Hu Gan Li	8.6	3.96	39	4.6	1.56	56	3.1%	4.00 [2.69, 5.31]
Li Chen Chen	8	5.39	15	4.1	2.52	87	2.0%	3.90 [1.12, 6.68]
Li Li Zheng	6.18	5.79	17	3.37	4.54	42	1.8%	2.81 [-0.27, 5.89]
Li Long Luo	8.12	3.36	65	3.04	2.25	96	3.4%	5.08 [4.15, 6.01]
Liu Song Zheng	9.39	8.14	34	3.48	1.5	302	2.0%	5.91 [3.17, 8.65]
Lu Chen Fan	8.1	5.9	31	5.1	8.4	92	2.0%	3.00 [0.31, 5.69]
Lu Lv Wu	4.9	3.2	26	4.2	3.3	95	3.1%	0.70 [-0.70, 2.10]
Luo Xia Yang	7.09	5.19	100	3.1	1.51	303	3.4%	3.99 [2.96, 5.02]
Pascual-Gomez Lobo Cremades	8.71	5.01	33	6.51	4.69	130	2.7%	2.20 [0.31, 4.09]
Qi Liu FallowField	4.01	4.69	5	2.48	1.955	16	1.2%	1.53 [-2.69, 5.75]
Shahriarirad Khodamoradi Erfani	6.49	3.47	9	4.26	1.83	104	2.3%	2.23 [-0.06, 4.52]
Shang Du Lu	4.6	4.3	51	2.85	1.41	365	3.2%	1.75 [0.56, 2.94]
Sun Wang Liu	12	2.03	57	10.86	0.196	12	3.7%	1.14 [0.60, 1.68]
Wang Li Li	8.2	2.88	15	5.2	2.15	101	3.0%	3.00 [1.48, 4.52]
Wang Lu Li	8	4.96	133	3.7	2.07	211	3.5%	4.30 [3.41, 5.19]
Wang Sheng Tu	6.19	4.37	21	3.44	1.78	113	2.7%	2.75 [0.85, 4.65]
Wang Zuo Liu	6.6	4.52	22	3	1.78	283	2.7%	3.60 [1.70, 5.50]
Wu Chen Cai	7.43	4.07	44	5.91	4.72	40	2.7%	1.52 [-0.37, 3.41]
Xu Fan Wang	6.14	3.76	28	3.95	4.63	159	2.9%	2.19 [0.62, 3.76]
Xu Yang Yang	7.2	4.22	146	6.5	3.96	92	3.3%	0.70 [-0.36, 1.76]
Yan Yang Wang	8.04	5.28	39	3.23	2.4	9	2.3%	4.81 [2.53, 7.09]
Yang Sheng Huang	6	6.67	40	3.2	1.63	165	2.5%	2.80 [0.72, 4.88]
Yin Zhou Zhang	7.24	5.41	52	6.79	4.2	60	2.7%	0.45 [-1.36, 2.26]
Zhang Guo Duan (cohort 1)	8.15	4.16	30	3.82	2.08	156	3.0%	4.33 [2.81, 5.85]
Zhang Guo Duan (training cohort)	7.2	3.41	96	3.77	2.32	420	3.6%	3.43 [2.71, 4.15]
Zhang Li Zhang	7.8	5.49	24	3.8	1.7	142	2.4%	4.00 [1.79, 6.21]
Zhang Sun Chen	5.3	4.71	46	3.1	1.7	273	3.1%	2.20 [0.82, 3.58]
Zhu Zhao Lai	4.1	1.66	17	2.9	1.56	308	3.5%	1.20 [0.39, 2.01]

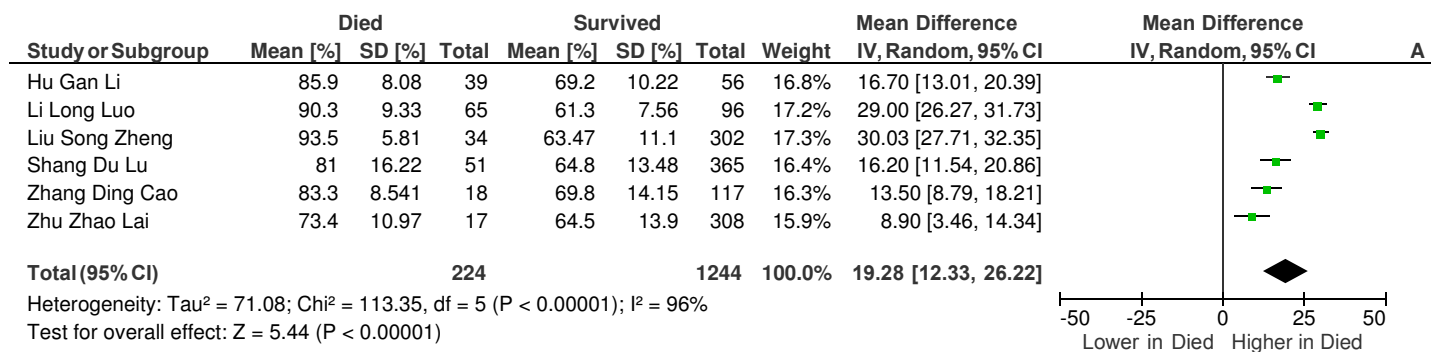
**Total (95% CI)****1787****5900 100.0%****2.61 [2.04, 3.18]**Heterogeneity: Tau<sup>2</sup> = 2.21; Chi<sup>2</sup> = 229.33, df = 35 (P < 0.00001); I<sup>2</sup> = 85%

Test for overall effect: Z = 9.03 (P &lt; 0.00001)

Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.3 Percent Neutrophils and Mortality Means [%]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.4 Absolute Lymphocyte Count and Mortality Means [10<sup>9</sup>/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [10 <sup>9</sup> /L]	SD [10 <sup>9</sup> /L]	Total	Mean [10 <sup>9</sup> /L]	SD [10 <sup>9</sup> /L]	Total		
Aries Davies Auer	1.2	233.2	12	0.5	1.06	17	0.0%	0.70 [-131.24, 132.64] ←
Bolondi Russo Gamberini	0.52	0.74	6	0.565	0.42	10	0.6%	-0.04 [-0.69, 0.60]
Brill Jarvis Ozcan	0.78	0.448	173	0.91	0.452	237	2.3%	-0.13 [-0.22, -0.04]
Cao Tu Cheng	0.8	0.38	17	0.9	0.3	85	1.9%	-0.10 [-0.29, 0.09]
Caraballo McCullough Fuery	0.6	0.37	34	0.9	0.52	172	2.1%	-0.30 [-0.45, -0.15]
Chen Sun Sun	0.6	0.37	82	1	0.52	578	2.2%	-0.40 [-0.49, -0.31]
Chen Wu Chen	0.6	0.22	113	1	0.52	161	2.2%	-0.40 [-0.49, -0.31]
Ciceri Castagna Rovere-Querini	0.7	0.22	93	0.985	0.37	311	2.3%	-0.29 [-0.35, -0.22]
De Smet Mellaerts Vandewinkele	0.55	0.49	19	0.9	0.41	62	1.7%	-0.35 [-0.59, -0.11]
Deng Liu Liu	0.63	0.29	109	1	0.41	116	2.2%	-0.37 [-0.46, -0.28]
Du Liang Yang	0.7	0.23	21	0.8	0.37	158	2.2%	-0.10 [-0.21, 0.01]
Fan Wang Ye	0.5	0.75	3	1	0.53	17	0.4%	-0.50 [-1.39, 0.39]
Foy Carlson Reinertsen	0.91	0.7	155	1.25	1.33	1043	2.1%	-0.34 [-0.48, -0.20]
Giacomelli Ridolfo Milazzo	0.9	0.373	48	1	0.44	185	2.1%	-0.10 [-0.22, 0.02]
Goicoechea Camara Macias	0.67	0.62	11	0.83	0.41	25	1.1%	-0.16 [-0.56, 0.24]
Gozalbo-Rivera Jimenez Latorre	0.7133	0.6341	3	1.0633	0.7593	13	0.4%	-0.35 [-1.18, 0.48]
Gribaldi Fiksler Muschelli	0.79	0.452	113	1.01	0.548	729	2.2%	-0.22 [-0.31, -0.13]
Grifoni Valoriani Cei	0.94	0.2	6	0.96	0.42	71	1.9%	-0.02 [-0.21, 0.17]
He Chen Chen	0.5	0.38	10	1.5	0.75	21	1.1%	-1.00 [-1.40, -0.60]
Hu Gan Li	0.7	0.3	39	1.2	0.67	56	1.8%	-0.50 [-0.70, -0.30]
Hu Liu Jiang	0.56	0.244	68	1.13	0.504	115	2.2%	-0.57 [-0.68, -0.46]
Li Chen Chen	0.5	0.3	15	0.9	0.37	87	2.0%	-0.40 [-0.57, -0.23]
Li Li Zheng	0.68	0.44	17	0.95	0.45	42	1.6%	-0.27 [-0.52, -0.02]
Liu Fang Tokuno	0.425	0.254	30	1.16	0.74	310	2.1%	-0.73 [-0.86, -0.61]
Liu Song Zheng	0.42	0.26	34	1.36	0.526	302	2.2%	-0.94 [-1.05, -0.83]
Lu Chen Fan	0.7	0.36	31	0.91	0.41	92	2.0%	-0.21 [-0.36, -0.06]
Lu Lv Wu	0.7	0.3	26	0.9	0.4	339	2.1%	-0.20 [-0.32, -0.08]
Luo Xia Yang	0.73	0.341	100	1.18	0.53	303	2.2%	-0.45 [-0.54, -0.36]
Mitra Fergusson Lloyd-Smith	0.75	0.45	18	0.8	0.37	99	1.8%	-0.05 [-0.27, 0.17]
Pascual-Gomez Lobo Cremades	1	0.56	33	1.2	0.66	130	1.8%	-0.20 [-0.42, 0.02]
Qi Liu FallowField	0.36	0.714	5	0.86	0.447	16	0.6%	-0.50 [-1.16, 0.16]
Ruan Yang Wang	0.6	0.32	68	1.42	2.14	82	0.9%	-0.82 [-1.29, -0.35]
Shahriarirad Khodamoradi Erfani	1.09	0.64	9	1.16	0.66	104	1.0%	-0.07 [-0.51, 0.37]
Shang Du Lu	0.7	0.37	51	1.06	0.49	365	2.2%	-0.36 [-0.47, -0.25]
Sun Wang Liu	0.48	0.3	57	0.63	0.56	12	1.3%	-0.15 [-0.48, 0.18]
Tomlins Hamilton Gunning	0.73	0.54	20	0.81	0.52	72	1.6%	-0.08 [-0.35, 0.19]
Tu Cao Yu	0.53	0.37	25	0.92	0.42	149	2.0%	-0.39 [-0.55, -0.23]
Wang Li Li	0.7	0.3	15	1.2	0.67	101	1.8%	-0.50 [-0.70, -0.30]
Wang Lu Li	0.4	0.22	133	1	0.44	211	2.3%	-0.60 [-0.67, -0.53]
Wang Sheng Tu	0.69	0.52	21	1.16	0.53	113	1.7%	-0.47 [-0.71, -0.23]
Wang VanOekelen Mouhieddine	0.2	0.2	7	0.4	0.5	16	1.5%	-0.20 [-0.49, 0.09]
Wang Zuo Liu	0.7	0.38	22	1	0.52	283	2.0%	-0.30 [-0.47, -0.13]
Wu Chen Cai	0.59	0.19	44	0.8	0.46	40	2.0%	-0.21 [-0.36, -0.06]
Xu Fan Wang	0.56	0.46	28	0.91	0.87	139	1.7%	-0.35 [-0.57, -0.13]
Xu Yang Yang	0.6	0.3	146	0.7	0.3	92	2.3%	-0.10 [-0.18, -0.02]
Yan Yang Wang	0.5	0.31	39	0.94	1	9	0.6%	-0.44 [-1.10, 0.22]
Yang Sheng Huang	0.58	0.4	40	1.03	0.62	165	2.0%	-0.45 [-0.61, -0.29]
Yang Yu Xu	0.62	0.37	32	0.74	0.4	20	1.8%	-0.12 [-0.34, 0.10]
Yin Zhou Zhang	0.54	0.33	52	0.55	0.34	60	2.1%	-0.01 [-0.13, 0.11]
Zhang Guo Duan (cohort 1)	0.66	0.255	30	1.1	0.526	156	2.1%	-0.44 [-0.56, -0.32]
Zhang Guo Duan (training cohort)	0.58	0.3	96	0.97	0.48	420	2.3%	-0.39 [-0.47, -0.31]
Zhang Li Zhang	0.6	0.45	24	1.1	0.67	142	1.8%	-0.50 [-0.71, -0.29]
Zhang Sun Chen	0.5	0.37	46	1.1	0.44	273	2.2%	-0.60 [-0.72, -0.48]
Zhang Yang Li	0.92	0.59	17	1.08	0.5	31	1.3%	-0.16 [-0.49, 0.17]
Zhang Zhao Wu	0.6	0.22	86	1	0.52	176	2.2%	-0.40 [-0.49, -0.31]
Zhou Yu Du	0.6	0.22	54	1.1	0.52	137	2.2%	-0.50 [-0.61, -0.39]
Zhu Zhao Lai	0.89	0.58	17	1.14	0.55	308	1.5%	-0.25 [-0.53, 0.03]
<b>Total (95% CI)</b>			<b>2623</b>			<b>9578</b>	<b>100.0%</b>	<b>-0.34 [-0.40, -0.28]</b>

Heterogeneity: Tau<sup>2</sup> = 0.04; Chi<sup>2</sup> = 476.63, df = 56 (P < 0.00001); I<sup>2</sup> = 88%

Test for overall effect: Z = 11.61 (P &lt; 0.00001)

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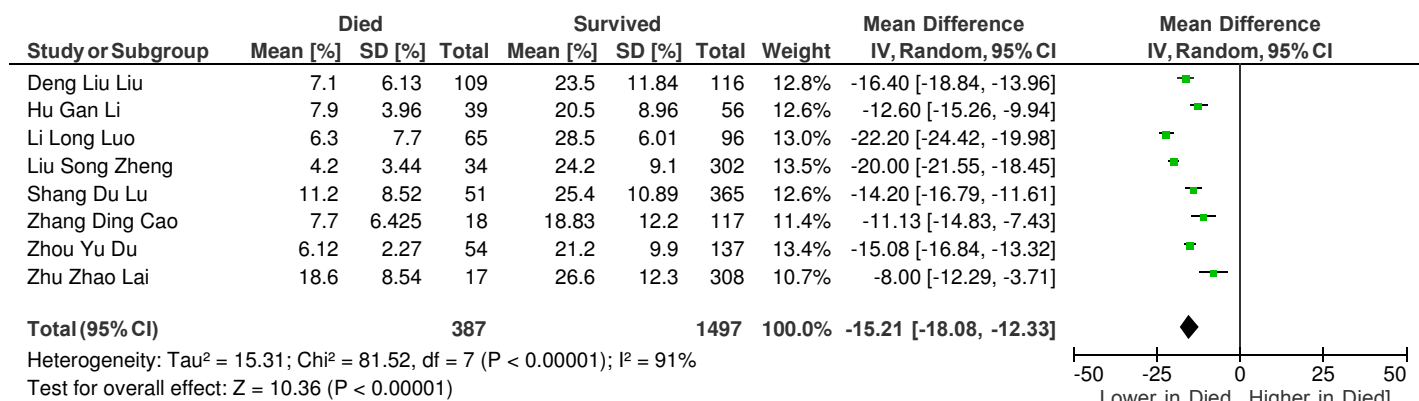
Test for overall effect:  $Z = 11.01$  ( $P < 0.00001$ )

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Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.5 Percent Lymphocyte and Mortality Means [%]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.6 Absolute Basophil Count and Mortality Means [10<sup>9</sup>/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI	Mean Diff IV, Random
	Mean [10 <sup>9</sup> /L]	SD [10 <sup>9</sup> /L]	Total	Mean [10 <sup>9</sup> /L]	SD [10 <sup>9</sup> /L]	Total			
Chen Sun Sun	0.01	0.0074	82	0.01	0.0074	578	56.3%	0.00 [-0.00, 0.00]	
Hu Gan Li	0	0.007	56	0	0.007	39	20.1%	0.00 [-0.00, 0.00]	
Wang Li Li	0	0.007	15	0	0.007	101	11.4%	0.00 [-0.00, 0.00]	
Zhu Zhao Lai	0.01	0.00756	17	0.01	0.0074	308	12.1%	0.00 [-0.00, 0.00]	
<b>Total (95% CI)</b>			<b>170</b>			<b>1026</b>	<b>100.0%</b>	<b>0.00 [-0.00, 0.00]</b>	

Heterogeneity: Tau<sup>2</sup> = 0.00; Chi<sup>2</sup> = 0.00, df = 3 (P = 1.00); I<sup>2</sup> = 0%  
 Test for overall effect: Z = 0.00 (P = 1.00)

Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.7 Absolute Eosinophil count and Mortality Means [10<sup>9</sup>/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI	Mean D IV, Rand
	Mean [10 <sup>9</sup> /L]	SD [10 <sup>9</sup> /L]	Total	Mean [10 <sup>9</sup> /L]	SD [10 <sup>9</sup> /L]	Total			
Chen Sun Sun	0	0.015	82	0.01	0.03	578	21.5%	-0.01 [-0.01, -0.01]	
Hu Gan Li	0	0.04	39	0.1	0.074	56	19.0%	-0.10 [-0.12, -0.08]	
Wang Li Li	0	0.04	15	0.1	0.074	101	18.7%	-0.10 [-0.12, -0.08]	
Zhang Li Zhang	0	0.0075	24	0.03	0.06	142	21.0%	-0.03 [-0.04, -0.02]	
Zhu Zhao Lai	0	0.04	17	0.01	0.015	308	19.8%	-0.01 [-0.03, 0.01]	
<b>Total (95% CI)</b>			<b>177</b>			<b>1185</b>	<b>100.0%</b>	<b>-0.05 [-0.08, -0.02]</b>	

Heterogeneity: Tau<sup>2</sup> = 0.00; Chi<sup>2</sup> = 110.41, df = 4 (P < 0.00001); I<sup>2</sup> = 96%  
 Test for overall effect: Z = 3.22 (P = 0.001)

Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



1.8 Absolute Monocyte Count and Mortality Means [10<sup>9</sup>/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [10 <sup>9</sup> /L]	SD [10 <sup>9</sup> /L]	Total	Mean [10 <sup>9</sup> /L]	SD [10 <sup>9</sup> /L]	Total		
Chen Wu Chen	0.4	0.3	113	0.4	0.15	161	26.6%	0.00 [-0.06, 0.06]
Fan Wang Ye	0.3	0.5	3	0.5	0.15	17	0.3%	-0.20 [-0.77, 0.37]
Hu Gan Li	0.5	0.3	39	0.5	0.15	56	9.2%	0.00 [-0.10, 0.10]
Hu Liu Jiang	0.35	0.259	68	0.42	0.178	115	19.8%	-0.07 [-0.14, -0.00]
Shahriarirad Khodamoradi Erfani	0.46	0.28	9	0.5	0.38	104	2.5%	-0.04 [-0.24, 0.16]
Wang Li Li	0.5	0.3	15	0.5	0.148	101	4.0%	0.00 [-0.15, 0.15]
Wu Chen Cai	0.25	0.19	44	0.35	0.18	40	15.3%	-0.10 [-0.18, -0.02]
Xu Fan Wang	0.32	0.17	28	0.38	0.33	159	14.5%	-0.06 [-0.14, 0.02]
Zhu Zhao Lai	0.3	0.23	17	0.3	0.15	308	7.8%	0.00 [-0.11, 0.11]
<b>Total (95% CI)</b>			<b>336</b>			<b>1061</b>	<b>100.0%</b>	<b>-0.04 [-0.07, -0.01]</b>

Heterogeneity: Tau<sup>2</sup> = 0.00; Chi<sup>2</sup> = 6.51, df = 8 (P = 0.59); I<sup>2</sup> = 0%

Test for overall effect: Z = 2.50 (P = 0.01)

-100  
Low

## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.9 Hemoglobin and Mortality Means [g/dL]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI	Mean IV, Ran
	Mean [g/dL]	SD [g/dL]	Total	Mean [g/dL]	SD [g/dL]	Total			
Aries Davies Auer	10.8	5.34	12	10.3	5.14	17	0.3%	0.50 [-3.39, 4.39]	
Chen Sun Sun	12.2	2.33	82	12.8	1.48	578	4.0%	-0.60 [-1.12, -0.08]	
Chen Wu Chen	12.8	2.3	113	12.8	1.48	161	4.1%	0.00 [-0.48, 0.48]	
Ciceri Castagna Rovere-Querini	12.6	2.37	93	13.91	1.6	311	4.0%	-1.31 [-1.82, -0.80]	
Covino DeMatteis Santoro	13.2	2.26	23	13.2	1.78	46	2.3%	0.00 [-1.06, 1.06]	
Foy Carlson Reinertsen	11.4	2.5	155	12.4	2.2	1043	4.3%	-1.00 [-1.42, -0.58]	
Giacomelli Ridolfo Milazzo	13.2	1.942	48	13.9	1.33	185	3.8%	-0.70 [-1.28, -0.12]	
Goicoechea Camara Macias	10.6	1.1	11	10.6	1.5	25	2.8%	0.00 [-0.88, 0.88]	
Gribaldi Fiksel Muschelli	12.8	2.67	113	12.87	2	729	4.0%	-0.07 [-0.58, 0.44]	
He Chen Chen	7.5	2.2	10	12.4	3.3	21	1.0%	-4.90 [-6.86, -2.94]	
Hu Gan Li	13.2	2.4	39	12.2	1	56	3.0%	1.00 [0.20, 1.80]	
Li Chen Chen	12	1.9	15	12.8	1.78	87	2.3%	-0.80 [-1.83, 0.23]	
Li Long Luo	12.8	2.28	96	13.5	1.22	65	3.9%	-0.70 [-1.24, -0.16]	
Lu Chen Fan	12.5	1.99	31	12.6	1.33	92	3.2%	-0.10 [-0.85, 0.65]	
Luo Xia Yang	12.5	1.96	100	12.8	1.71	303	4.3%	-0.30 [-0.73, 0.13]	
Pascual-Gomez Lobo Cremades	13.56	2.03	33	13.84	1.645	130	3.2%	-0.28 [-1.03, 0.47]	
Ruan Yang Wang	12.7	1.67	68	12.76	1.63	82	3.9%	-0.06 [-0.59, 0.47]	
Shahriarad Khodamoradi Erfani	13.02	2.26	9	13.58	2.41	104	1.4%	-0.56 [-2.11, 0.99]	
Sun Wang Liu	12.5	2.07	57	11.6	2.12	12	1.8%	0.90 [-0.41, 2.21]	
Wang Li Li	13.3	2.66	15	12.5	1.59	101	1.6%	0.80 [-0.58, 2.18]	
Wang Sheng Tu	12.6	1.8	113	12.9	2.3	21	2.3%	-0.30 [-1.34, 0.74]	
Wang Zuo Liu	12.1	2.07	22	12.9	1.8	283	2.7%	-0.80 [-1.69, 0.09]	
Xu Yang Yang	12.5	1.73	146	12.5	1.9	92	4.1%	0.00 [-0.48, 0.48]	
Yan Yang Wang	13.1	1.85	39	12.5	2.27	9	1.3%	0.60 [-0.99, 2.19]	
Yang Sheng Huang	11.5	2.52	40	11.8	1.78	165	2.9%	-0.30 [-1.13, 0.53]	
Yang Yu Xu	12.9	1.4	32	12.7	2	20	2.4%	0.20 [-0.80, 1.20]	
Zhang Guo Duan (cohort 1)	12.85	2.76	30	12.6	1.65	156	2.4%	0.25 [-0.77, 1.27]	
Zhang Guo Duan (training cohort)	13.1	1.85	96	12.7	1.48	420	4.4%	0.40 [0.00, 0.80]	
Zhang Li Zhang	13.1	3.36	24	12.46	1.53	142	1.7%	0.64 [-0.73, 2.01]	
Zhang Sun Chen	12.7	1.79	46	13.2	1.48	273	3.9%	-0.50 [-1.05, 0.05]	
Zhang Yang Li	11.1	2.4	17	12.9	1.6	31	1.8%	-1.80 [-3.07, -0.53]	
Zhang Zhao Wu	12.6	1.556	86	12.8	1.407	176	4.4%	-0.20 [-0.59, 0.19]	
Zhou Yu Du	12.6	1.7	54	12.8	1.48	137	4.0%	-0.20 [-0.72, 0.32]	
Zhu Zhao Lai	13	2.04	17	13.1	1.63	308	2.5%	-0.10 [-1.09, 0.89]	
<b>Total (95% CI)</b>			<b>1885</b>			<b>6381</b>	<b>100.0%</b>	<b>-0.28 [-0.49, -0.07]</b>	

Heterogeneity: Tau<sup>2</sup> = 0.23; Chi<sup>2</sup> = 99.35, df = 33 (P < 0.00001); I<sup>2</sup> = 67%

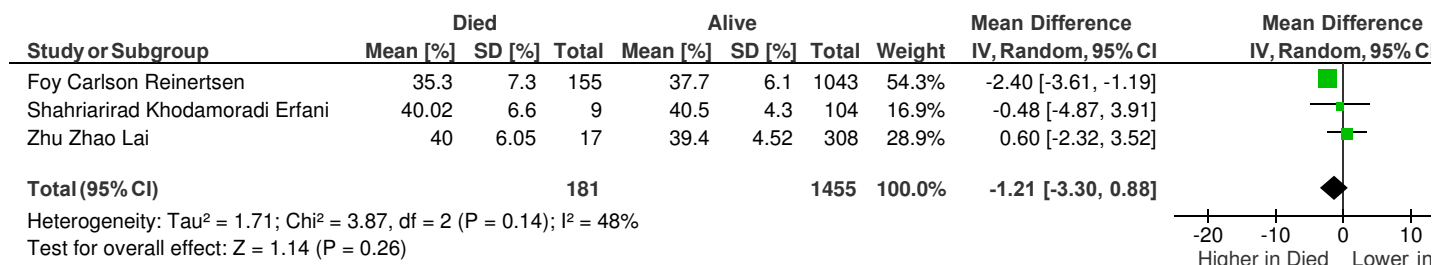
Test for overall effect: Z = 2.56 (P = 0.01)

-10 -5  
Lower in Die

## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

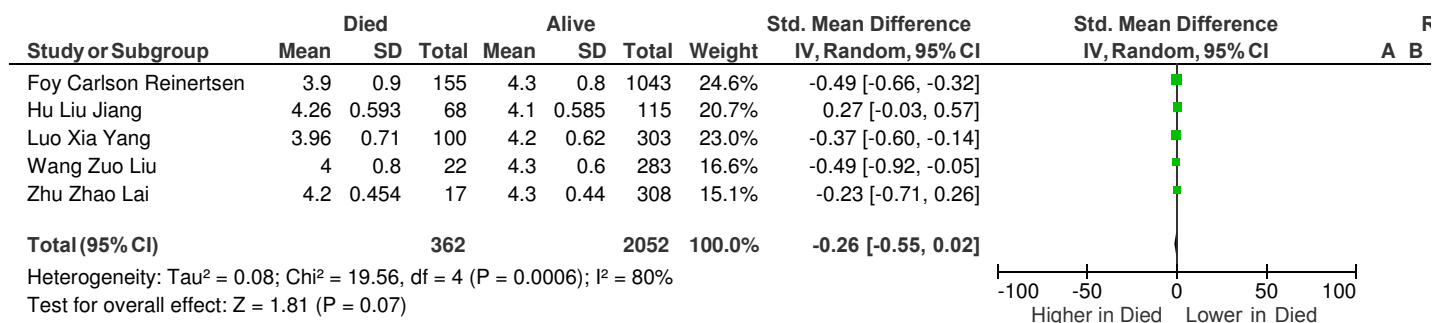
1.10 Hematocrit and Mortality Means [%]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

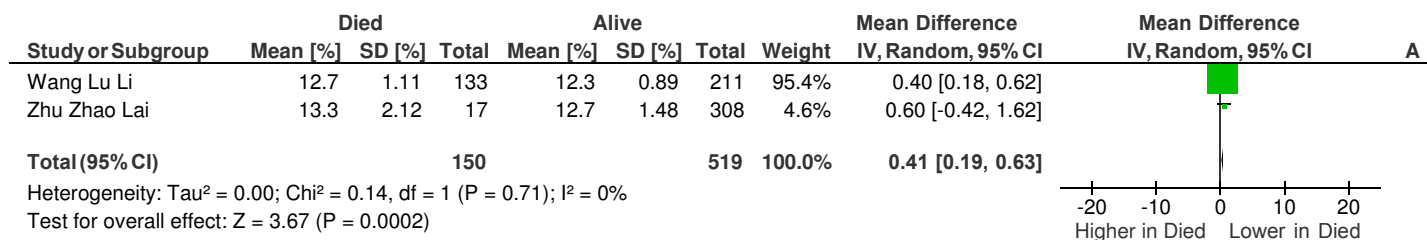
1.11 Red Blood Cell Count and Mortality Means



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.12 Red Cell Distribution Width and Mortality Means [%]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.13 Platelets and Mortality Means [10<sup>9</sup>/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [10 <sup>9</sup> /L]	SD [10 <sup>9</sup> /L]	Total	Mean [10 <sup>9</sup> /L]	SD [10 <sup>9</sup> /L]	Total		
Aries Davies Auer	130	170.1	12	144	184.6	17	0.7%	-14.00 [-144.24, 116.24]
Bolondi Russo Gamberini	223	10.12	7	251.5	81.7	12	2.1%	-28.50 [-75.33, 18.33]
Chen Sun Sun	130	57	82	182	65.78	578	2.9%	-52.00 [-65.45, -38.55]
Chen Wu Chen	156	79.63	113	198	71.11	161	2.8%	-42.00 [-60.34, -23.66]
Ciceri Castagna Rovere-Querini	182	100	93	194	82.2	311	2.7%	-12.00 [-34.28, 10.28]
Foy Carlson Reinertsen	193.2	108	155	236	108	1043	2.8%	-42.80 [-61.02, -24.58]
Giacomelli Ridolfo Milazzo	181	63.48	48	174	62.2	185	2.7%	7.00 [-13.07, 27.07]
Goicoechea Camara Macias	137	83	11	174	58	25	1.9%	-37.00 [-91.06, 17.06]
Gribaldi Fiksel Muschelli	188	77.8	113	203.78	77.04	729	2.8%	-15.78 [-31.18, -0.38]
He Chen Chen	62.4	53.6	10	213	94.2	21	1.9%	-150.60 [-202.82, -98.38]
Hu Gan Li	200.4	100.2	39	232.1	98.3	56	2.2%	-31.70 [-72.34, 8.94]
Hu Liu Jiang	165.5	76.67	68	206	79.26	115	2.7%	-40.50 [-63.78, -17.22]
Li Chen Chen	113	51.6	15	206.5	77.6	87	2.5%	-93.50 [-124.29, -62.71]
Li Li Zheng	134	61.3	17	182	111.4	42	2.1%	-48.00 [-92.54, -3.46]
Lu Chen Fan	135	42.4	31	198.6	73.8	92	2.7%	-63.60 [-84.82, -42.38]
Lu Lv Wu	172.3	66.8	26	181.5	90.5	95	2.5%	-9.20 [-40.67, 22.27]
Luo Xia Yang	169	72.6	100	205	82.2	303	2.8%	-36.00 [-52.97, -19.03]
Mitra Fergusson Lloyd-Smith	223	93.7	18	214	82.2	99	2.1%	9.00 [-37.22, 55.22]
Qi Liu FallowField	77	38.9	5	126	89.4	16	1.8%	-49.00 [-104.51, 6.51]
Ruan Yang Wang	173.6	67.7	68	222.1	78	82	2.7%	-48.50 [-71.82, -25.18]
Shahriarirad Khodamoradi Erfani	199.55	104.24	9	222.85	106.09	104	1.5%	-23.30 [-94.39, 47.79]
Sun Wang Liu	142	88.15	57	191	147.4	12	1.2%	-49.00 [-135.48, 37.48]
Tang Bai Chen	178	92	21	231	99	162	2.2%	-53.00 [-95.20, -10.80]
Wang Li Li	212.9	138.1	15	233.6	101.1	101	1.4%	-20.70 [-93.32, 51.92]
Wang Lu Li	159	78.5	133	211	95.5	211	2.8%	-52.00 [-70.55, -33.45]
Wang Sheng Tu	169	103	21	212	96	113	2.0%	-43.00 [-90.48, 4.48]
Wang Zuo Liu	174.8	72.4	22	187.8	72.4	283	2.5%	-13.00 [-44.41, 18.41]
Wu Chen Cai	162	90.1	44	204	93.87	40	2.3%	-42.00 [-81.43, -2.57]
Xu Yang Yang	160	71.1	146	186	62.22	92	2.8%	-26.00 [-43.17, -8.83]
Yan Yang Wang	160	85.2	39	161	97.8	9	1.5%	-1.00 [-70.26, 68.26]
Yang Sheng Huang	160	79.26	40	194	84.4	165	2.6%	-34.00 [-61.73, -6.27]
Yang Yang Wang	79	63.7	238	203	75.6	1238	2.9%	-124.00 [-133.12, -114.88]
Yang Yu Xu	191	63	32	164	74	20	2.3%	27.00 [-12.09, 66.09]
Yin Zhou Zhang	127	73.3	52	182	72.6	60	2.6%	-55.00 [-82.10, -27.90]
Zhang Ding Cao	187	90.174	18	202.87	74.07	117	2.1%	-15.87 [-59.64, 27.90]
Zhang Guo Duan (cohort 1)	178.67	86.76	30	247.81	100.7	156	2.4%	-69.14 [-103.98, -34.30]
Zhang Guo Duan (training cohort)	169.77	85.48	96	222.5	88.27	420	2.8%	-52.73 [-71.80, -33.66]
Zhang Li Zhang	218.5	106.5	24	235.1	89.6	142	2.1%	-16.60 [-61.68, 28.48]
Zhang Sun Chen	132	50	46	176	50.4	273	2.8%	-44.00 [-59.64, -28.36]
Zhang Yang Li	119	93.8	17	181	57.1	31	2.0%	-62.00 [-110.91, -13.09]
Zhang Zhao Wu	162	84.44	86	183	86.67	176	2.7%	-21.00 [-42.96, 0.96]
Zhou Yu Du	165.5	90.4	54	220	76.3	137	2.6%	-54.50 [-81.79, -27.21]
Zhu Zhao Lai	143	27.2	17	173	50.7	308	2.8%	-30.00 [-44.12, -15.88]
<b>Total (95% CI)</b>			<b>2288</b>			<b>8439</b>	<b>100.0%</b>	<b>-39.85 [-52.06, -27.65]</b>

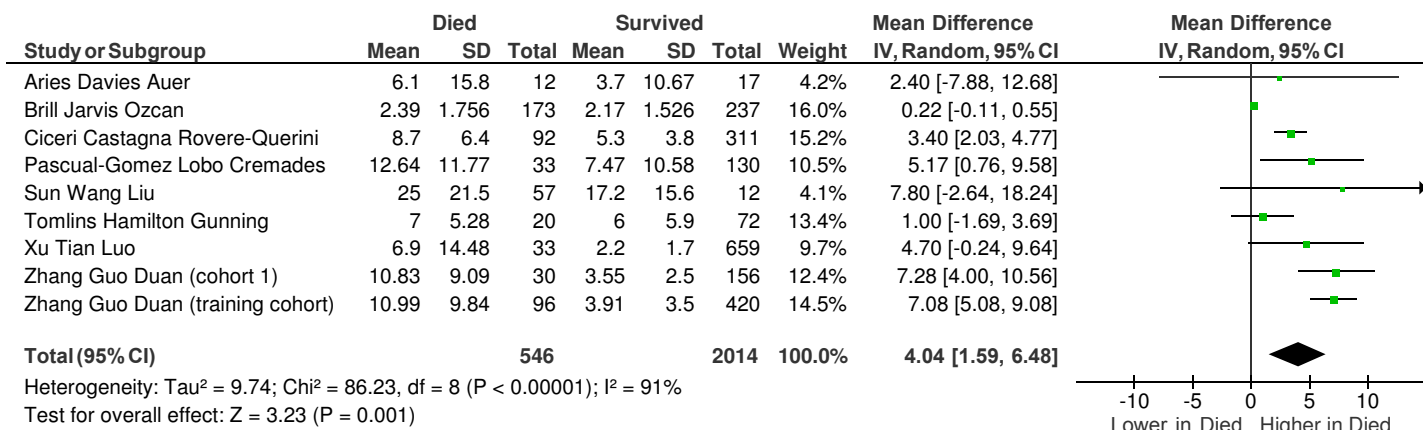
Heterogeneity: Tau<sup>2</sup> = 1312.25; Chi<sup>2</sup> = 410.33, df = 42 (P < 0.00001); I<sup>2</sup> = 90%

Test for overall effect: Z = 6.40 (P &lt; 0.00001)

## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

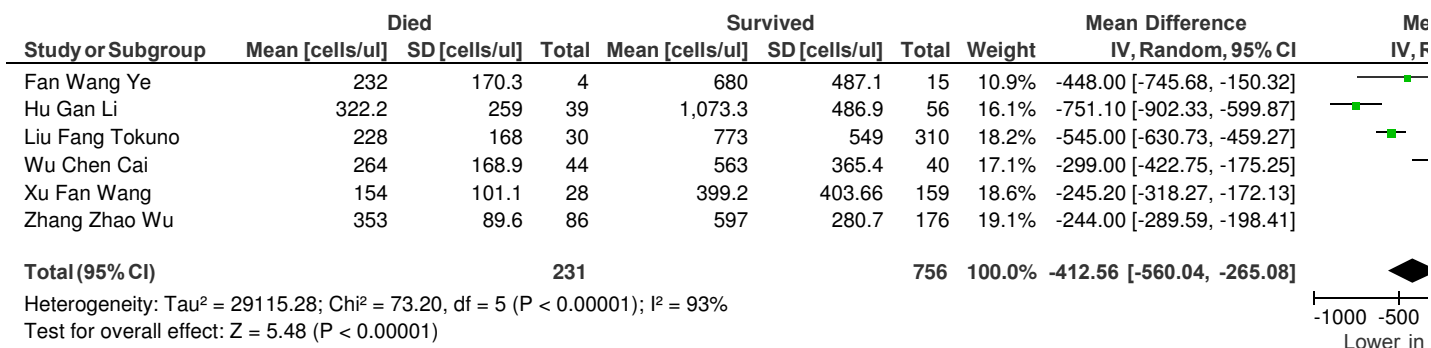
1.14 Neutrophil to Lymphocyte Ratio and Mortality Means



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.15 CD3+ Total T Cell Count and Mortality Means [cells/ul]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.16 CD4+ T Helper Cells (Absolute) and Mortality Means [cells/uL]

Study or Subgroup	Died			Survived			Weight	Mean Difference		I <sup>2</sup>
	Mean [cells/uL]	SD [cells/uL]	Total	Mean [cells/uL]	SD [cells/uL]	Total		IV, Random, 95% CI		
Du Liang Yang	68	70.6	21	128.3	94.96	158	15.7%	-60.30 [-93.93, -26.67]		-
Fan Wang Ye	168	114.61	4	416	292.12	15	10.2%	-248.00 [-433.66, -62.34]		-
Hu Gan Li	216.4	115.2	39	707.5	310.74	56	14.1%	-491.10 [-580.16, -402.04]		-
Liu Fang Tokuno	139	98	30	457	342	310	15.3%	-318.00 [-369.76, -266.24]		-
Wu Chen Cai	166	137.5	44	286	237.47	40	14.3%	-120.00 [-204.06, -35.94]		-
Xu Fan Wang	84.5	65.4	28	234.6	213.5	42	14.8%	-150.10 [-219.06, -81.14]		-
Zhang Zhao Wu	181	53.3	86	337	225.9	176	15.6%	-156.00 [-191.22, -120.78]		-
<b>Total (95% CI)</b>	<b>252</b>			<b>797</b>			<b>100.0%</b>	<b>-216.47 [-315.47, -117.47]</b>		

Heterogeneity: Tau<sup>2</sup> = 16001.18; Chi<sup>2</sup> = 124.49, df = 6 (P < 0.00001); I<sup>2</sup> = 95%  
 Test for overall effect: Z = 4.29 (P < 0.0001)

Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.17 Percent CD4+ Cells (%) and Mortality Means

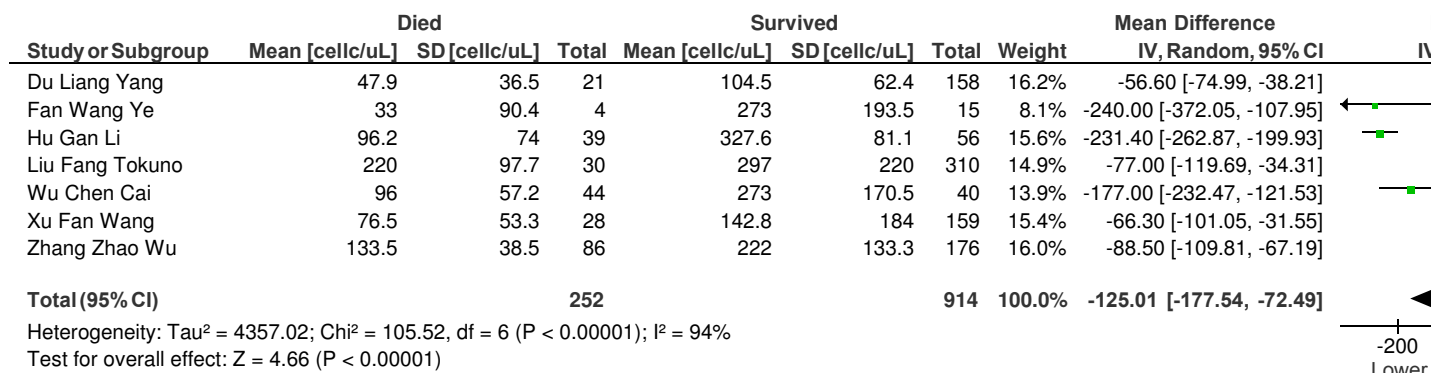
Study or Subgroup	Died			Alive			Weight	Mean Difference		Risk
	Mean	SD	Total	Mean	SD	Total		IV, Random, 95% CI		
Chen Sun Sun	20	7.41	82	50	29.63	578	33.8%	-30.00 [-32.90, -27.10]		A B C
Hu Gan Li	42	20.269	39	49.4	11.56	56	32.6%	-7.40 [-14.45, -0.35]		A B C
Liu Fang Tokuno	33.8	11.8	30	37.2	10.6	310	33.5%	-3.40 [-7.78, 0.98]		A B C
<b>Total (95% CI)</b>	<b>151</b>			<b>944</b>			<b>100.0%</b>	<b>-13.71 [-33.08, 5.67]</b>		

Heterogeneity: Tau<sup>2</sup> = 286.51; Chi<sup>2</sup> = 112.95, df = 2 (P < 0.00001); I<sup>2</sup> = 98%  
 Test for overall effect: Z = 1.39 (P = 0.17)

Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

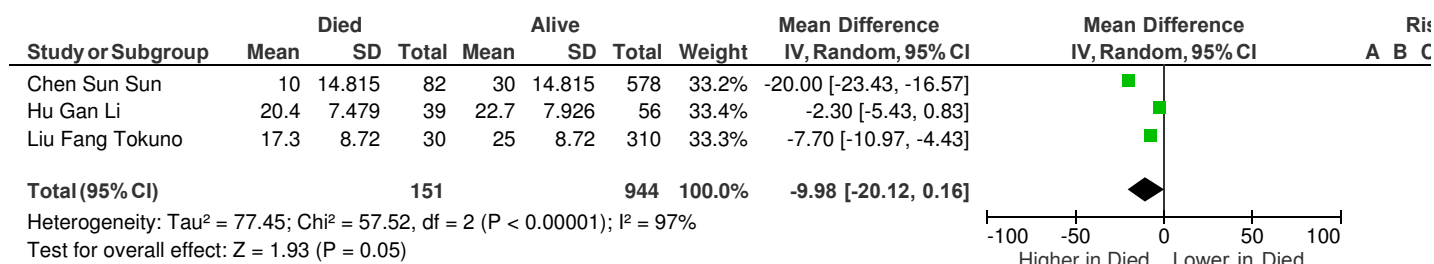
1.18 CD8+ Suppressor/Cytotoxic T Cells (absolute) and Mortality Means [cell/uL]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.19 Percent CD8+ Cells (%) and Mortality Means

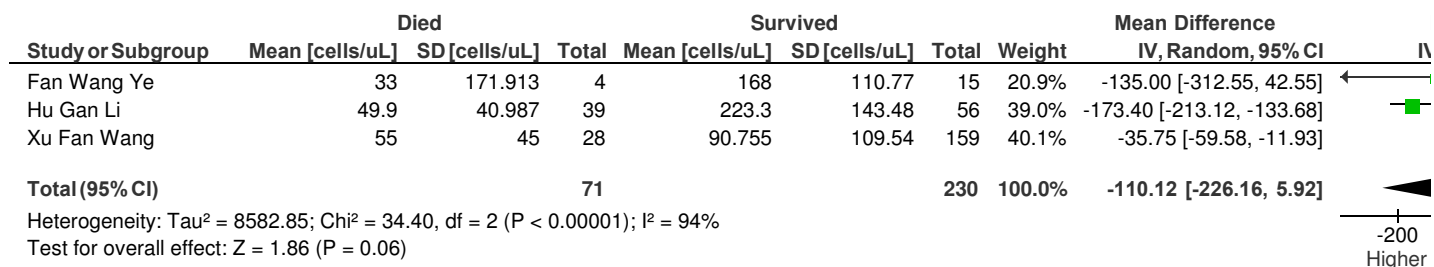


Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



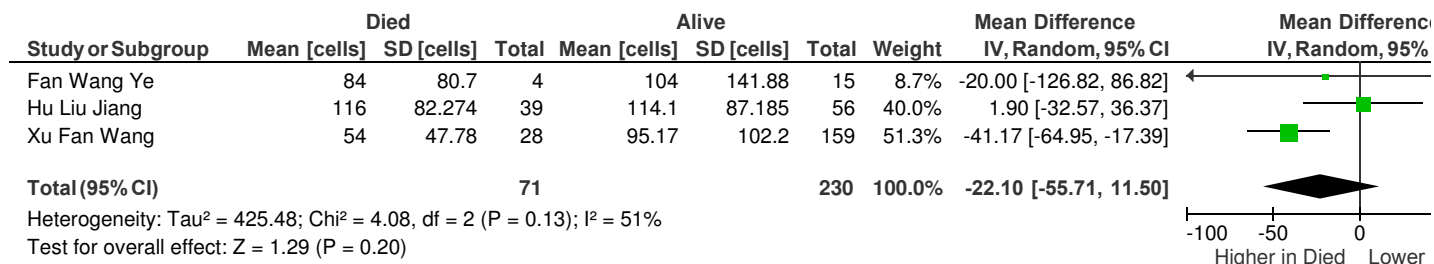
1.20 Natural Killer (NK) Cell (absolute) and Mortality Means [cells/uL]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

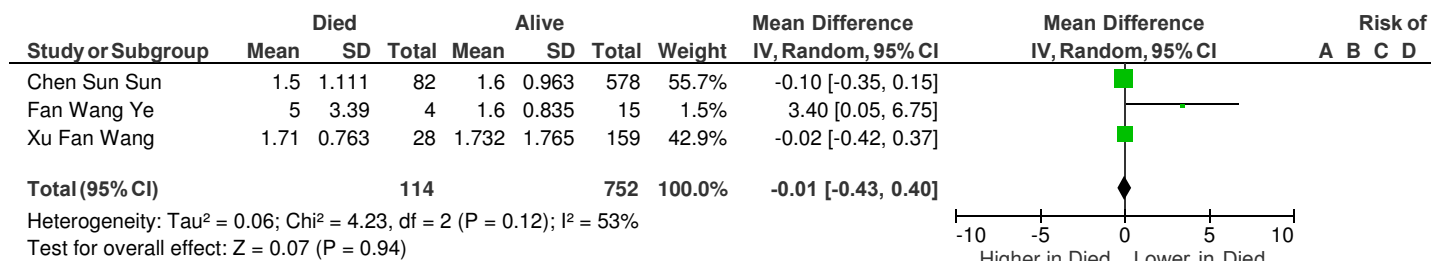
1.21 B Cells/CD19+ Cells and Mortality Mean [cells]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.22 CD4+/CD8+ ratio



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.23 Sodium and Mortality Means [mmol/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [mmol/L]	SD [mmol/L]	Total	Mean [mmol/L]	SD [mmol/L]	Total		
Caraballo McCullough Fuery	139	5.24	34	139	3.7	172	8.3%	0.00 [-1.85, 1.85]
Chen Wu Chen	138.4	6	113	139.1	3.7	161	11.2%	-0.70 [-1.95, 0.55]
Ciceri Castagna Rovere-Querini	136	4.44	94	136.9	3.76	311	12.6%	-0.90 [-1.89, 0.09]
Hu Liu Jiang	138.55	4.74	68	140.3	3.44	115	11.0%	-1.75 [-3.04, -0.46]
Li Chen Chen	138.6	6.6	15	137.6	3.78	87	3.9%	1.00 [-2.43, 4.43]
Li Li Zheng	139.9	5.07	17	137.5	6.69	42	4.4%	2.40 [-0.75, 5.55]
Liu Song Zheng	140.5	4.85	34	141	2.44	302	9.2%	-0.50 [-2.15, 1.15]
Lu Chen Fan	140	7.1	31	138	14.8	92	3.1%	2.00 [-1.92, 5.92]
Luo Xia Yang	141.1	5.63	100	143.2	3.48	303	11.6%	-2.10 [-3.27, -0.93]
Shahriarirad Khodamoradi Erfani	138.91	5.74	9	137.56	5.09	104	3.2%	1.35 [-2.53, 5.23]
Webb Moon Barnes	138	2.31	9	138	2.96	30	8.4%	0.00 [-1.84, 1.84]
Zhang Zhao Wu	140	3.7	86	139	2.96	176	13.0%	1.00 [0.10, 1.90]
<b>Total (95% CI)</b>			<b>610</b>			<b>1895</b>	<b>100.0%</b>	<b>-0.29 [-1.07, 0.48]</b>

Heterogeneity: Tau<sup>2</sup> = 1.00; Chi<sup>2</sup> = 29.15, df = 11 (P = 0.002); I<sup>2</sup> = 62%

Test for overall effect: Z = 0.74 (P = 0.46)

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## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.24 Potassium and Mortality Means [mmol/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [mmol/L]	SD [mmol/L]	Total	Mean [mmol/L]	SD [mmol/L]	Total		
Chen Wu Chen	4.3	0.74	113	4.1	0.44	161	19.1%	0.20 [0.05, 0.35]
Hu Liu Jiang	4.42	0.785	68	4.17	0.474	115	16.3%	0.25 [0.04, 0.46]
Li Chen Chen	4.4	1.14	15	4.1	0.52	87	4.9%	0.30 [-0.29, 0.89]
Liu Song Zheng	4	1.04	34	4.3	0.385	302	10.0%	-0.30 [-0.65, 0.05]
Lu Chen Fan	3.8	0.8	31	3.7	0.5	92	11.9%	0.10 [-0.20, 0.40]
Shahriarirad Khodamoradi Erfani	4.34	0.68	9	4.04	0.56	104	7.1%	0.30 [-0.16, 0.76]
Xu Fan Wang	3.68	0.607	28	3.67	1.53	159	10.9%	0.01 [-0.32, 0.34]
Zhang Zhao Wu	4.2	0.52	86	4.3	0.59	176	19.8%	-0.10 [-0.24, 0.04]
<b>Total (95% CI)</b>			<b>384</b>			<b>1196</b>	<b>100.0%</b>	<b>0.08 [-0.07, 0.22]</b>

Heterogeneity: Tau<sup>2</sup> = 0.02; Chi<sup>2</sup> = 17.34, df = 7 (P = 0.02); I<sup>2</sup> = 60%

Test for overall effect: Z = 1.06 (P = 0.29)

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## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.25 Chloride and Mortality Means [mEq/L]

Study or Subgroup	Died			Alive			Weight	Mean Difference IV, Random, 95% CI	Me. IV, R
	Mean [mEq/L]	SD [mEq/L]	Total	Mean [mEq/L]	SD [mEq/L]	Total			
Caraballo McCullough Fuery	102	7.49	34	102	5.185	172	14.4%	0.00 [-2.63, 2.63]	
Hu Liu Jiang	100.05	3.852	68	101.8	3.26	115	32.8%	-1.75 [-2.84, -0.66]	
Liu Song Zheng	101	7.95	34	103	2.96	302	13.9%	-2.00 [-4.69, 0.69]	
Zhang Zhao Wu	106	2.22	176	106	2.96	86	38.9%	0.00 [-0.71, 0.71]	
<b>Total (95% CI)</b>			<b>312</b>			<b>675</b>	<b>100.0%</b>	<b>-0.85 [-2.06, 0.36]</b>	

Heterogeneity: Tau<sup>2</sup> = 0.85; Chi<sup>2</sup> = 8.25, df = 3 (P = 0.04); I<sup>2</sup> = 64%

Test for overall effect: Z = 1.38 (P = 0.17)

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## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.26 Calcium and Mortality Means [mmol/L]

Study or Subgroup	Died		Total	Survived		Total	Weight	Mean Difference IV, Random, 95% CI	Mean I IV, Rand
	Mean [mmol/L]	SD [mmol/L]		Mean [mmol/L]	SD [mmol/L]				
Hu Liu Jiang	2.39	0.089	68	2.37	0.104	115	26.2%	0.02 [-0.01, 0.05]	
Li Chen Chen	2	0.23	15	2.1	0.15	87	22.3%	-0.10 [-0.22, 0.02]	
Liu Song Zheng	2.1	0.097	34	2.33	0.11	302	26.1%	-0.23 [-0.26, -0.20]	■
Yang Sheng Huang	2	0.148	40	2.1	0.22	165	25.4%	-0.10 [-0.16, -0.04]	
<b>Total (95% CI)</b>			<b>157</b>			<b>669</b>	<b>100.0%</b>	<b>-0.10 [-0.25, 0.04]</b>	◀

Heterogeneity: Tau<sup>2</sup> = 0.02; Chi<sup>2</sup> = 119.02, df = 3 (P < 0.00001); I<sup>2</sup> = 97%  
 Test for overall effect: Z = 1.40 (P = 0.16)

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## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.27 Glucose and Mortality Means [mmol/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [mmol/L]	SD [mmol/L]	Total	Mean [mmol/L]	SD [mmol/L]	Total		
Brill Jarvis Ozcan	6.9	2.02	173	6.5	1.8	237	10.9%	0.40 [0.02, 0.78]
Chen Sun Sun	7.1	2.44	82	5.6	1.56	578	10.1%	1.50 [0.96, 2.04]
Ciceri Castagna Rovere-Querini	7.104	1.81	89	5.83	1.05	304	10.8%	1.27 [0.88, 1.67]
Hu Liu Jiang	7.44	2.126	68	5.73	1.356	115	10.0%	1.71 [1.15, 2.27]
Li Li Zheng	7.85	5.14	17	7.05	3.7	42	2.4%	0.80 [-1.89, 3.49]
Li Long Luo	8	2.78	65	5.3	1.68	96	8.9%	2.70 [1.95, 3.45]
Lu Lv Wu	7.5	2.6	26	7.4	4	95	6.1%	0.10 [-1.18, 1.38]
Pascual-Gomez Lobo Cremades	8.19	2.75	33	7	2.81	130	7.3%	1.19 [0.13, 2.25]
Qi Liu FallowField	7.9	6.75	5	6.06	2	16	0.6%	1.84 [-4.16, 7.84]
Wang Lu Li	8.2	3.56	133	6.1	1.93	211	9.4%	2.10 [1.44, 2.76]
Wang Sheng Tu	7.4	4.5	21	6.4	2.1	113	3.8%	1.00 [-0.96, 2.96]
Wang Zuo Liu	7.2	2.79	22	6	1.63	283	6.6%	1.20 [0.02, 2.38]
Wu Chen Cai	7.1	2.99	44	7.8	3.74	40	5.4%	-0.70 [-2.16, 0.76]
Yan Yang Wang	12.38	6.64	39	9.02	5.65	9	1.1%	3.36 [-0.88, 7.60]
Zhang Li Zhang	8.1	4.81	24	6	1.63	142	3.8%	2.10 [0.16, 4.04]
Zhu Zhao Lai	9.1	4.8	17	6.2	2.3	308	3.0%	2.90 [0.60, 5.20]
<b>Total (95% CI)</b>			<b>858</b>			<b>2719</b>	<b>100.0%</b>	<b>1.35 [0.88, 1.81]</b>

Heterogeneity:  $\tau^2 = 0.47$ ;  $\chi^2 = 57.22$ ,  $df = 15$  ( $P < 0.00001$ );  $I^2 = 74\%$

Test for overall effect:  $Z = 5.72$  ( $P < 0.00001$ )

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## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.28 Blood Urea Nitrogen (BUN) and Mortality Means [mmol/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [mmol/L]	SD [mmol/L]	Total	Mean [mmol/L]	SD [mmol/L]	Total		
Cao Tu Cheng	6.68	3.46	17	3.86	1.49	85	3.0%	2.82 [1.15, 4.49]
Caraballo McCullough Fuery	13.21	6.15	34	9.82	7.14	172	2.4%	3.39 [1.06, 5.72]
Chen Sun Sun	6.5	3.78	82	4	1.48	578	4.0%	2.50 [1.67, 3.33]
Chen Wu Chen	8.4	5.1	113	4	1.56	161	3.8%	4.40 [3.43, 5.37]
Covino DeMatteis Santoro	13.9	10.21	23	7.14	3.967	46	1.1%	6.76 [2.43, 11.09]
Fu Fei Xiang	7.4	3.9	34	4.1	1.85	166	3.4%	3.30 [1.96, 4.64]
He Chen Chen	6	4.9	10	3.9	1.28	21	1.7%	2.10 [-0.99, 5.19]
Hu Gan Li	9.9	3.44	39	5.9	2	56	3.6%	4.00 [2.80, 5.20]
Hu Liu Jiang	7.95	3.15	68	4.3	1.56	115	4.0%	3.65 [2.85, 4.45]
Li Chen Chen	9.2	6.3	15	4.3	1.7	87	1.7%	4.90 [1.69, 8.11]
Li Li Zheng	6.55	4.17	17	3.91	2.99	42	2.5%	2.64 [0.46, 4.82]
Li Long Luo	6.8	8.6	65	3.8	1	96	2.6%	3.00 [0.90, 5.10]
Liu Song Zheng	9.79	4.66	34	3.5	0.94	302	3.2%	6.29 [4.72, 7.86]
Lu Lv Wu	4.9	2.1	26	4.4	1.41	95	3.9%	0.50 [-0.36, 1.36]
Pascual-Gomez Lobo Cremades	7.35	2.98	33	4.73	2.39	130	3.7%	2.62 [1.52, 3.72]
Qi Liu FallowField	5.5	5.1	5	5.3	2.46	16	1.0%	0.20 [-4.43, 4.83]
Ruan Yang Wang	8.65	4.5	68	5.11	2.1	82	3.6%	3.54 [2.38, 4.70]
Shahriarad Khodamoradi Erfani	6.31	5.97	9	5.97	20.3	104	0.8%	0.34 [-5.18, 5.86]
Shang Du Lu	5.5	3.63	51	3.94	1.5	365	3.8%	1.56 [0.55, 2.57]
Wang Li Li	10.9	3.34	15	5.7	1.9	101	3.0%	5.20 [3.47, 6.93]
Wang Lu Li	8.3	4.6	133	4.3	1.93	211	4.0%	4.00 [3.18, 4.82]
Wang Sheng Tu	5	3.84	21	4.7	1.56	113	3.0%	0.30 [-1.37, 1.97]
Wang Zuo Liu	5.4	2.94	22	3.9	1.4	283	3.5%	1.50 [0.26, 2.74]
Wen Yali Zirui	18.2	9.4	34	6.8	3.4	27	1.5%	11.40 [7.99, 14.81]
Wu Chen Cai	7.4	2.73	44	4.94	2.17	40	3.7%	2.46 [1.41, 3.51]
Xu Fan Wang	6.76	3.57	28	4.94	3.84	159	3.3%	1.82 [0.37, 3.27]
Yan Yang Wang	9.5	4.8	39	2.9	1.46	9	2.9%	6.60 [4.82, 8.38]
Yin Zhou Zhang	8.5	7.96	52	5.8	2.24	60	2.4%	2.70 [0.46, 4.94]
Zhang Ding Cao	5.6	4	18	4.726	1.333	117	2.8%	0.87 [-0.99, 2.74]
Zhang Guo Duan (cohort 1)	7.69	9.09	30	4.61	1.71	156	1.6%	3.08 [-0.18, 6.34]
Zhang Guo Duan (training cohort)	6.47	3.33	96	4.3	1.99	420	4.1%	2.17 [1.48, 2.86]
Zhang Sun Chen	7.1	4.41	46	3.9	1.26	273	3.5%	3.20 [1.92, 4.48]
Zhang Zhao Wu	6.9	2.37	86	4.6	1.63	176	4.2%	2.30 [1.74, 2.86]
Zhu Zhao Lai	6.4	4.4	17	4	1.3	308	2.6%	2.40 [0.30, 4.50]
<b>Total (95% CI)</b>			<b>1424</b>			<b>5172</b>	<b>100.0%</b>	<b>3.07 [2.55, 3.60]</b>
Heterogeneity: Tau <sup>2</sup> = 1.63; Chi <sup>2</sup> = 164.57, df = 33 (P < 0.00001); I <sup>2</sup> = 80%								
Test for overall effect: Z = 11.46 (P < 0.00001)								

## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.29 Creatinine and Mortality Means [umol/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [umol/L]	SD [umol/L]	Total	Mean [umol/L]	SD [umol/L]	Total		
Caraballo McCullough Fuery	150.3	105.97	34	106.1	58.95	172	0.9%	44.20 [7.51, 80.89]
Chen Sun Sun	78.3	41.78	82	63.3	19.185	578	2.9%	15.00 [5.82, 24.18]
Chen Wu Chen	88	35.56	113	66	22.2	161	3.1%	22.00 [14.60, 29.40]
Ciceri Castagna Rovere-Querini	105.22	55.67	94	85.69	24.6	314	2.6%	19.53 [7.95, 31.11]
Covino DeMatteis Santoro	128.21	77.8	23	91.07	28.8	46	1.0%	37.14 [4.27, 70.01]
Deng Liu Liu	89	45.56	109	65	17.9	116	2.9%	24.00 [14.85, 33.15]
Du Liang Yang	95	36.9	21	65	18.52	158	2.2%	30.00 [13.96, 46.04]
Fu Fei Xiang	90.5	38.95	34	65	21.85	166	2.4%	25.50 [11.99, 39.01]
Giacomelli Ridolfo Milazzo	97.26	47.54	48	82.23	22.27	185	2.4%	15.03 [1.20, 28.86]
Gribaldi Fiksel Muschelli	141.47	72.046	113	88.91	45.85	729	2.4%	52.56 [38.87, 66.25]
He Chen Chen	64.9	20.1	10	51.2	18.8	21	2.3%	13.70 [-1.13, 28.53]
Hu Gan Li	124.7	41.1	39	115.7	27.26	56	2.3%	9.00 [-5.74, 23.74]
Hu Liu Jiang	85.5	22.963	68	67	19.26	115	3.1%	18.50 [12.01, 24.99]
Li Chen Chen	94	76.6	15	67	19.26	87	0.8%	27.00 [-11.97, 65.97]
Li Long Luo	74.9	244.3	65	64.9	12.5	96	0.4%	10.00 [-49.44, 69.44]
Liu Song Zheng	65	29.33	34	67	18.37	302	2.8%	-2.00 [-12.07, 8.07]
Lu Chen Fan	150	305	31	67.8	45.4	92	0.1%	82.20 [-25.57, 189.97]
Lu Lv Wu	76.5	31.93	26	71	20.963	95	2.5%	5.50 [-7.48, 18.48]
Luo Xia Yang	82	31.1	100	68	16.8	303	3.2%	14.00 [7.62, 20.38]
Mitra Fergusson Lloyd-Smith	111	55.18	18	84	27.41	99	1.4%	27.00 [0.94, 53.06]
Pascual-Gomez Lobo Cremades	106.9	42.12	33	82.7	31.71	130	2.3%	24.20 [8.83, 39.57]
Qi Liu FallowField	66.2	27.94	5	60.1	30.8	16	1.2%	6.10 [-22.67, 34.87]
Ruan Yang Wang	91.2	56.2	68	72.1	22.2	82	2.4%	19.10 [4.90, 33.30]
Shahriarirad Khodamoradi Erfani	90.19	25.64	9	100.799	31.8	104	2.0%	-10.61 [-28.44, 7.22]
Shang Du Lu	85.5	25.19	51	65.9	19.3	365	3.1%	19.60 [12.41, 26.79]
Sun Wang Liu	85	32.96	57	58	21.9	12	2.3%	27.00 [11.94, 42.06]
Tomlins Hamilton Gunning	102	36.95	20	87	40	75	1.9%	15.00 [-3.55, 33.55]
Wang Li Li	159.9	31.87	15	88.2	17.8	101	2.1%	71.70 [55.20, 88.20]
Wang Lu Li	86	32.6	133	66	22	211	3.2%	20.00 [13.71, 26.29]
Wang Sheng Tu	81.1	24.9	21	62.6	18.15	113	2.7%	18.50 [7.34, 29.66]
Wang VanOekelen Mouhieddine	238.7	176.8	7	97.26	123.79	16	0.1%	141.44 [-2.90, 285.78]
Wang Zuo Liu	66.3	36.4	22	62.3	17.4	283	2.3%	4.00 [-11.34, 19.34]
Webb Moon Barnes	141	57.78	9	109	39.26	30	0.7%	32.00 [-8.28, 72.28]
Wen Yali Zirui	222.5	203.3	34	72.6	36.2	27	0.3%	149.90 [80.21, 219.59]
Wu Chen Cai	73	21.9	44	78.65	25.1	40	2.8%	-5.65 [-15.77, 4.47]
Xu Fan Wang	93.7	23.56	28	70.13	43.65	159	2.7%	23.57 [12.52, 34.62]
Xu Yang Yang	73.2	24.29	146	70.2	20.52	92	3.2%	3.00 [-2.75, 8.75]
Yan Yang Wang	88	30.4	39	65	20	9	2.2%	23.00 [6.82, 39.18]
Yang Yu Xu	80.7	32.3	32	76.3	27.4	20	2.2%	4.40 [-12.01, 20.81]
Yin Zhou Zhang	88.1	47.96	52	69	20.59	60	2.4%	19.10 [5.06, 33.14]
Zhang Ding Cao	71.5	30.16	18	64.17	20.67	117	2.4%	7.33 [-7.10, 21.76]
Zhang Guo Duan (cohort 1)	80.9	84.13	30	69.2	17.56	156	1.1%	11.70 [-18.53, 41.93]
Zhang Guo Duan (training cohort)	75.1	23.1	96	66.15	17	420	3.3%	8.95 [4.05, 13.85]
Zhang Li Zhang	91.5	28.2	24	69.5	43.7	142	2.5%	22.00 [8.62, 35.38]
Zhang Sun Chen	82	38.1	46	63	18.5	273	2.7%	19.00 [7.77, 30.23]
Zhang Yang Li	96	81.7	17	79	19.5	31	0.8%	17.00 [-22.44, 56.44]
Zhang Zhao Wu	73.4	21.63	86	70.7	18.37	176	3.2%	2.70 [-2.62, 8.02]
Zhu Zhao Lai	83.7	135.63	17	63.9	17.1	308	0.3%	19.80 [-44.70, 84.30]
<b>Total (95% CI)</b>			<b>2236</b>			<b>7459</b>	<b>100.0%</b>	<b>17.83 [13.89, 21.77]</b>

Heterogeneity: Tau<sup>2</sup> = 117.37; Chi<sup>2</sup> = 212.84, df = 47 (P < 0.00001); I<sup>2</sup> = 78%  
 Test for overall effect: Z = 8.88 (P < 0.00001)

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-20

## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



(G) Other bias

1.30 Estimated Glomerular filtration rate (eGFR) and Mortality Means [ml/min/1.7]

Study or Subgroup	Died			Alive			Weight	Mean Difference IV, Random, 95% CI
	Mean [ml/min/1.7]	SD [ml/min/1.7]	Total	Mean [ml/min/1.7]	SD [ml/min/1.7]	Total		
Gribaldi Fiksel Muschelli	38	31.1	113	76.14	39.26	729	22.0%	-38.14 [-44.54, -31.74]
Hu Liu Jiang	77.85	23.07	68	93.35	16.67	115	22.1%	-15.50 [-21.77, -9.23]
Wang Lu Li	74	26.67	133	93	21.48	211	22.7%	-19.00 [-24.38, -13.62]
Wang Zuo Liu	77.9	34.5	22	103.6	23.1	283	15.3%	-25.70 [-40.37, -11.03]
Zhang Li Zhang	59	27.1	24	82.7	22.4	142	17.9%	-23.70 [-35.15, -12.25]
<b>Total (95% CI)</b>			<b>360</b>			<b>1480</b>	<b>100.0%</b>	<b>-24.30 [-33.64, -14.97]</b>

Heterogeneity: Tau<sup>2</sup> = 92.54; Chi<sup>2</sup> = 29.10, df = 4 (P < 0.00001); I<sup>2</sup> = 86%  
 Test for overall effect: Z = 5.10 (P < 0.00001)

Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.31 Cystatin C and Mortality Means [mg/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI	Mean Difference IV, Random, 95% CI
	Mean [mg/L]	SD [mg/L]	Total	Mean [mg/L]	SD [mg/L]	Total			
Cao Tu Cheng	1.39	0.99	17	0.91	0.23	85	14.6%	0.48 [0.01, 0.95]	
Wu Chen Cai	1.08	0.433	44	0.94	0.26	40	38.5%	0.14 [-0.01, 0.29]	
Zhang Zhao Wu	1.92	0.12	86	1.98	0.096	176	46.9%	-0.06 [-0.09, -0.03]	
<b>Total (95% CI)</b>			<b>147</b>			<b>301</b>	<b>100.0%</b>	<b>0.10 [-0.12, 0.31]</b>	

Heterogeneity: Tau<sup>2</sup> = 0.03; Chi<sup>2</sup> = 11.34, df = 2 (P = 0.003); I<sup>2</sup> = 82%  
 Test for overall effect: Z = 0.86 (P = 0.39)

Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.32 Aspartate Aminotransferase (AST) and Mortality Means [U/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI	Mean I IV, Ranc
	Mean [U/L]	SD [U/L]	Total	Mean [U/L]	SD [U/L]	Total			
Caraballo McCullough Fuery	43	42.697	34	34	20.74	172	2.3%	9.00 [-5.68, 23.68]	
Chen Wu Chen	45	26.7	113	25	9.85	161	3.6%	20.00 [14.85, 25.15]	
Ciceri Castagna Rovere-Querini	50	35.56	90	44.35	23.7	302	3.3%	5.65 [-2.17, 13.47]	
Deng Liu Liu	34	14.8	109	22	10.4	116	3.8%	12.00 [8.64, 15.36]	
Du Liang Yang	40	26	21	27.5	17	158	2.7%	12.50 [1.07, 23.93]	
Fu Fei Xiang	61.5	43.6	34	32	17.4	166	2.3%	29.50 [14.61, 44.39]	
Gribaldi Fiksel Muschelli	42	31.11	113	37.64	22.96	729	3.5%	4.36 [-1.61, 10.33]	
He Chen Chen	22.5	12.9	10	24.3	6.78	21	3.2%	-1.80 [-10.30, 6.70]	
Hu Gan Li	54.9	23.9	39	33.8	16.3	56	3.2%	21.10 [12.47, 29.73]	
Li Chen Chen	34	22.8	15	25	14	87	2.7%	9.00 [-2.91, 20.91]	
Li Long Luo	45.25	43.6	65	22.9	16.6	96	2.8%	22.35 [11.24, 33.46]	
Liu Song Zheng	54	19.59	34	30	11.11	302	3.4%	24.00 [17.30, 30.70]	
Lu Chen Fan	50.2	26.6	31	33.6	19.2	92	2.9%	16.60 [6.45, 26.75]	
Lu Lv Wu	40.5	20.135	26	29	11.11	95	3.2%	11.50 [3.44, 19.56]	
Mitra Fergusson Lloyd-Smith	55	33.26	18	68	46.67	99	1.9%	-13.00 [-30.91, 4.91]	
Pascual-Gomez Lobo Cremades	158.9	670.22	33	35.77	31.77	130	0.0%	123.13 [-105.60, 351.86]	
Qi Liu FallowField	42	57.94	5	31	18.94	16	0.4%	11.00 [-40.63, 62.63]	
Ruan Yang Wang	288.9	1,875.5	68	40.7	57.8	82	0.0%	248.20 [-197.75, 694.15]	
Shahriarirad Khodamoradi Erfani	47	111	9	47	33.3	104	0.2%	0.00 [-72.80, 72.80]	
Shang Du Lu	33	17	51	23.76	10.46	365	3.7%	9.24 [4.45, 14.03]	
Wang Li Li	35.3	18.2	15	31.4	13.3	101	3.0%	3.90 [-5.67, 13.47]	
Wang Lu Li	43	28.15	133	27	12.6	211	3.6%	16.00 [10.92, 21.08]	
Wang Sheng Tu	50.6	29.4	21	39	13.3	113	2.6%	11.60 [-1.21, 24.41]	
Wang VanOekelen Mouhieddine	101	51.5	7	49.5	54.3	16	0.5%	51.50 [4.99, 98.01]	
Wu Chen Cai	37	16.4	44	38.5	18.7	40	3.3%	-1.50 [-9.05, 6.05]	
Xu Fan Wang	38.5	23.3	28	25.3	23.4	159	3.0%	13.20 [3.83, 22.57]	
Xu Yang Yang	45	21.48	146	38	22.22	92	3.5%	7.00 [1.28, 12.72]	
Yan Yang Wang	41	28.89	39	26	13.48	9	2.6%	15.00 [2.36, 27.64]	
Yin Zhou Zhang	42	21.5	60	54	42.2	52	2.6%	-12.00 [-24.69, 0.69]	
Zhang Ding Cao	37	25.93	18	36.47	14	117	2.6%	0.53 [-11.71, 12.77]	
Zhang Guo Duan (cohort 1)	40.5	21	30	28	17	156	3.2%	12.50 [4.53, 20.47]	
Zhang Guo Duan (training cohort)	32	17.8	96	47	22.2	420	3.7%	-15.00 [-19.15, -10.85]	
Zhang Li Zhang	40.5	13.5	24	24	12.74	142	3.5%	16.50 [10.71, 22.29]	
Zhang Sun Chen	32	11.2	46	21	11.1	273	3.8%	11.00 [7.51, 14.49]	
Zhang Yang Li	33	36.3	17	32	20.24	31	1.8%	1.00 [-17.67, 19.67]	
Zhang Zhao Wu	40	18.9	86	34	12.3	176	3.7%	6.00 [1.61, 10.39]	
Zhu Zhao Lai	31.2	8.32	17	21.7	11.5	308	3.7%	9.50 [5.34, 13.66]	

Total (95% CI)

1745

5765 100.0%

9.44 [5.98, 12.91]

Heterogeneity:  $\tau^2 = 79.48$ ;  $\text{Chi}^2 = 253.57$ ,  $\text{df} = 36$  ( $P < 0.00001$ );  $I^2 = 86\%$ Test for overall effect:  $Z = 5.35$  ( $P < 0.00001$ )

-200 -100  
Lower in Die

## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.33 Alanine Aminotransferase (ALT) and Mortality Means [U/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI	Mean I IV, Ranc
	Mean [U/L]	SD [U/L]	Total	Mean [U/L]	SD [U/L]	Total			
Cao Tu Cheng	40	26.5	17	19.6	17.8	85	1.3%	20.40 [7.25, 33.55]	
Chen Sun Sun	21	12.52	82	19.7	14.67	578	4.1%	1.30 [-1.66, 4.26]	
Chen Wu Chen	28	21.5	113	20	12.74	161	3.6%	8.00 [3.57, 12.43]	
Ciceri Castagna Rovere-Querini	32	25.2	93	37.77	23.76	313	3.1%	-5.77 [-11.53, -0.01]	
Covino DeMatteis Santoro	21	28.6	23	18	10.37	46	1.4%	3.00 [-9.07, 15.07]	
Deng Liu Liu	22	14.1	109	18.7	12.9	116	3.9%	3.30 [-0.24, 6.84]	
Du Liang Yang	27	12.8	21	22	19.6	158	2.9%	5.00 [-1.27, 11.27]	
Fan Wang Ye	25	29.86	4	22	14.4	16	0.3%	3.00 [-27.10, 33.10]	-
Fu Fei Xiang	34.5	28.46	34	22	18.5	166	1.8%	12.50 [2.53, 22.47]	
Giacomelli Ridolfo Milazzo	40	22.963	48	30	21.48	185	2.6%	10.00 [-5.27, 17.20]	
Goicoechea Camara Macias	19.2	12.6	11	29.5	54.2	25	0.5%	-10.30 [-32.81, 12.21]	-
Gribaldi Fiksel Muschelli	30	17.78	113	29.45	21.48	729	3.8%	0.55 [-3.08, 4.18]	
He Chen Chen	16.5	10.6	10	19.4	9.9	21	2.4%	-2.90 [-10.72, 4.92]	
Hu Gan Li	48.2	20.9	39	32.4	21.7	56	2.2%	15.80 [7.12, 24.48]	
Hu Liu Jiang	30	15.93	68	23	21.48	115	3.2%	7.00 [1.55, 12.45]	
Li Chen Chen	17	12.14	15	23	15.6	87	2.7%	-6.00 [-12.96, 0.96]	
Li Li Zheng	33.4	14.8	17	29.6	26.2	42	1.7%	3.80 [-6.80, 14.40]	
Li Long Luo	29	67.85	65	19.9	19.8	96	0.9%	9.10 [-7.86, 26.06]	
Liu Song Zheng	37	28.36	34	38	23.52	302	1.9%	-1.00 [-10.89, 8.89]	
Lu Chen Fan	29.9	15.3	31	25.9	15.4	92	2.9%	4.00 [-2.24, 10.24]	
Lu Lv Wu	28.5	10.293	26	23	19.26	95	3.1%	5.50 [-0.04, 11.04]	
Mitra Fergusson Lloyd-Smith	28	18.14	18	49	43.7	99	1.4%	-21.00 [-33.01, -8.99]	-
Pascual-Gomez Lobo Cremades	54.58	154.49	33	30.51	31.48	130	0.1%	24.07 [-28.92, 77.06]	-
Qi Liu FallowField	30	23.81	5	28	15.91	16	0.5%	2.00 [-20.28, 24.28]	
Ruan Yang Wang	170.8	991.6	68	48.68	83.1	82	0.0%	122.12 [-114.25, 358.49]	
Shahriarirad Khodamoradi Erfani	32	51.2	9	36.42	39.36	104	0.2%	-4.42 [-38.71, 29.87]	-
Shang Du Lu	22	11.3	51	20	12.36	365	3.9%	2.00 [-1.35, 5.35]	
Sun Wang Liu	29	19.6	57	25	28.38	12	0.9%	4.00 [-12.84, 20.84]	
Tomlins Hamilton Gunning	28	15.1	20	26	14	58	2.5%	2.00 [-5.53, 9.53]	
Wang Li Li	30.5	15.9	15	29.6	15.56	101	2.2%	0.90 [-7.70, 9.50]	
Wang Lu Li	29	17	133	21	16.3	211	3.8%	8.00 [4.37, 11.63]	
Wang Sheng Tu	43	39.2	21	24	20.74	113	0.8%	19.00 [1.80, 36.20]	
Wang VanOekelen Mouhieddine	79	32	7	43.5	52.8	16	0.2%	35.50 [0.41, 70.59]	
Wu Chen Cai	39	23.9	44	35	23.9	40	1.8%	4.00 [-6.23, 14.23]	
Xu Fan Wang	25.5	25.2	28	20.5	31.1	159	1.7%	5.00 [-5.51, 15.51]	
Xu Yang Yang	35	24.4	146	39	24.4	92	2.9%	-4.00 [-10.37, 2.37]	
Yan Yang Wang	23	17	39	20	13.87	9	1.7%	3.00 [-7.52, 13.52]	
Yin Zhou Zhang	38	21.85	52	27	27	60	2.1%	11.00 [1.95, 20.05]	
Zhang Ding Cao	28	31.37	18	25.38	13.33	117	1.1%	2.62 [-12.07, 17.31]	
Zhang Guo Duan (cohort 1)	34.5	26.26	30	32	23.7	156	1.8%	2.50 [-7.61, 12.61]	
Zhang Guo Duan (training cohort)	40	23.7	96	33	25.2	420	3.2%	7.00 [1.68, 12.32]	
Zhang Li Zhang	25.5	20.83	24	21.5	18.52	142	2.1%	4.00 [-4.87, 12.87]	
Zhang Sun Chen	24	11.2	46	19	14.8	273	3.8%	5.00 [1.32, 8.68]	
Zhang Yang Li	19	15.1	17	23	18	31	1.9%	-4.00 [-13.57, 5.57]	
Zhang Zhao Wu	39	24.8	86	27	19.78	176	3.0%	12.00 [6.00, 18.00]	
Zhou Yu Du	40	20	54	27	18.5	137	2.9%	13.00 [6.83, 19.17]	
Zhu Zhao Lai	19.9	10.74	17	18.9	15.2	308	3.2%	1.00 [-4.38, 6.38]	

Total (95% CI)

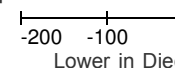
2107

6911 100.0%

3.99 [2.25, 5.74]

Heterogeneity: Tau<sup>2</sup> = 17.13; Chi<sup>2</sup> = 114.92, df = 46 (P < 0.00001); I<sup>2</sup> = 60%

Test for overall effect: Z = 4.49 (P &lt; 0.00001)



## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.34 Alkaline Phosphatase and Mortality Means [U/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI	Mean Difference IV, Random, 95%
	Mean [U/L]	SD[U/L]	Total	Mean [U/L]	SD[U/L]	Total			
Chen Wu Chen	76	42.96	113	64	19.26	161	25.9%	12.00 [3.54, 20.46]	
Fan Wang Ye	86	29	3	80	20.45	16	1.6%	6.00 [-28.31, 40.31]	
Goicoechea Camara Macias	167	158	11	121	117	25	0.2%	46.00 [-58.03, 150.03]	
Hu Liu Jiang	81.5	37	68	66	22.96	115	19.5%	15.50 [5.76, 25.24]	
Shang Du Lu	62	20.74	51	56.24	15.78	365	52.9%	5.76 [-0.16, 11.68]	
<b>Total (95% CI)</b>	<b>246</b>			<b>682</b>			<b>100.0%</b>	<b>9.35 [5.04, 13.65]</b>	

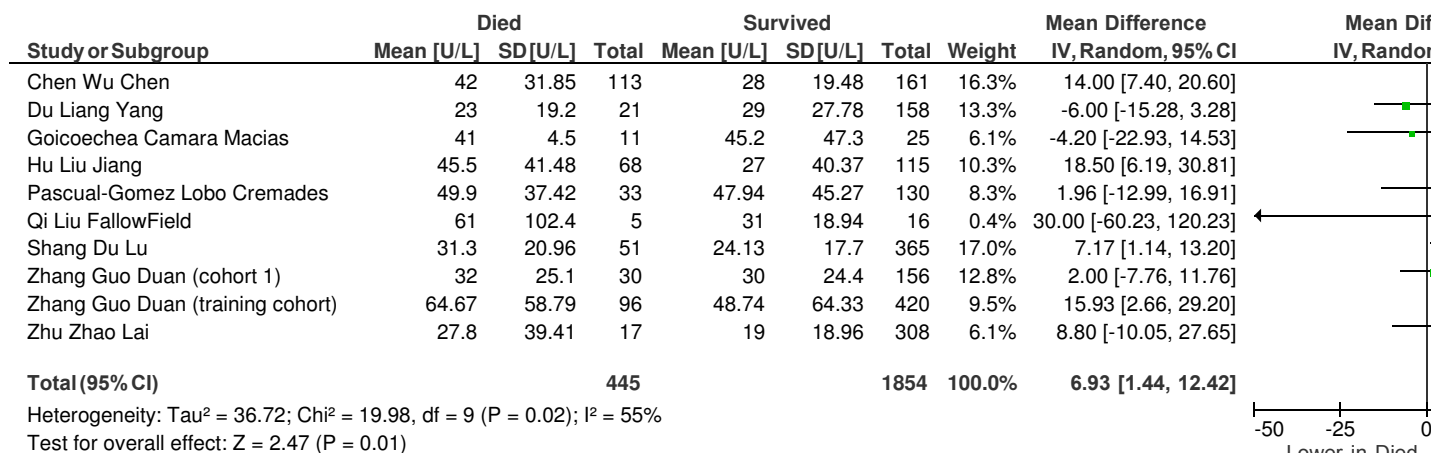
Heterogeneity: Tau<sup>2</sup> = 0.00; Chi<sup>2</sup> = 3.83, df = 4 (P = 0.43); I<sup>2</sup> = 0%  
 Test for overall effect: Z = 4.26 (P < 0.0001)

-100   -50   0  
Lower in Died   High

## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

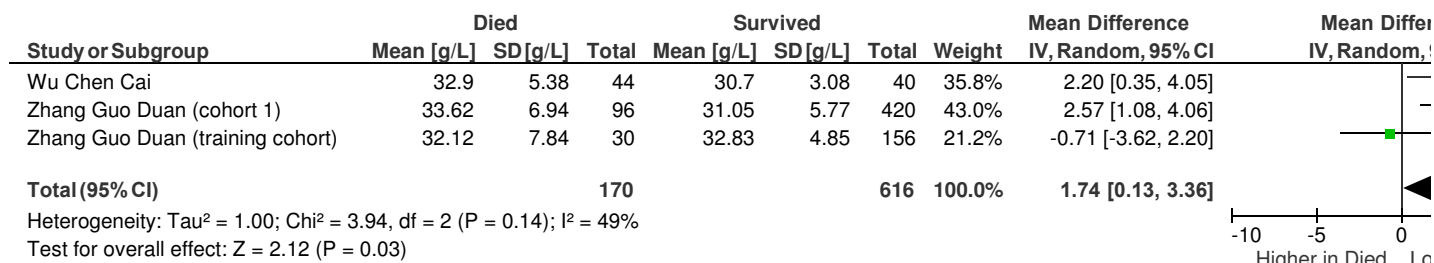
1.35 Gamma Glutamyl Transpeptidase (GGT) and Mortality Means [U/L]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

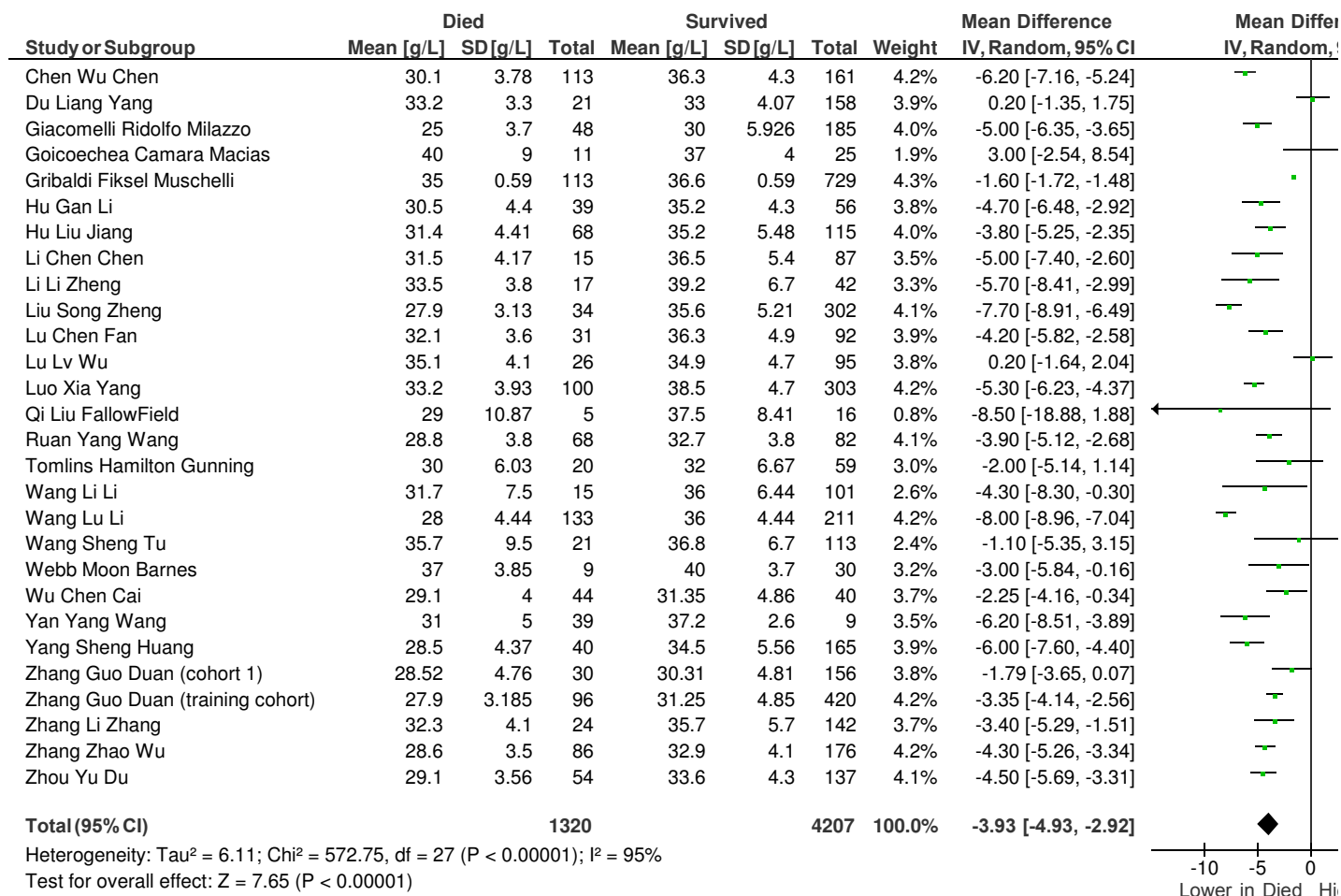
1.36 Globulin and Mortality Means [g/L]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.37 Albumin and Mortality Means [g/L]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.38 Total Bilirubin and Mortality Means [umol/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [umol/L]	SD [umol/L]	Total	Mean [umol/L]	SD [umol/L]	Total		
Chen Sun Sun	8.4	6.3	82	8.8	3.78	578	3.8%	-0.40 [-1.80, 1.00]
Chen Wu Chen	12.6	5.4	113	8.4	4	161	3.9%	4.20 [3.03, 5.37]
Ciceri Castagna Rovere-Querini	9.58	14.5	82	9.06	4.73	263	2.9%	0.52 [-2.67, 3.71]
Du Liang Yang	9.6	6	21	8.7	4.3	158	3.2%	0.90 [-1.75, 3.55]
Fu Fei Xiang	14.8	5	34	10.9	4.7	166	3.6%	3.90 [2.07, 5.73]
Giacomelli Ridolfo Milazzo	18.81	2.53	48	20.52	0.074	185	4.1%	-1.71 [-2.43, -0.99]
Goicoechea Camara Macias	11.97	9.06	11	9.06	15.9	25	1.1%	2.91 [-5.31, 11.13]
Gribaldi Fiksel Muschelli	8.55	5.067	113	7.185	3.8	729	4.0%	1.37 [0.39, 2.34]
He Chen Chen	11.7	7.98	10	9.6	1.95	21	2.0%	2.10 [-2.92, 7.12]
Hu Gan Li	13.3	5.8	39	10	5.3	56	3.4%	3.30 [1.01, 5.59]
Hu Liu Jiang	13.05	6.89	68	9.3	3.815	115	3.7%	3.75 [1.97, 5.53]
Li Chen Chen	8.4	6.6	15	8.5	3.56	87	2.8%	-0.10 [-3.52, 3.32]
Li Long Luo	12.12	13	65	9.05	9.08	96	2.7%	3.07 [-0.58, 6.72]
Lu Lv Wu	10.6	6.1	26	10.3	7.3	95	3.1%	0.30 [-2.47, 3.07]
Luo Xia Yang	17.4	8.9	100	11.9	4.4	303	3.6%	5.50 [3.69, 7.31]
Mitra Fergusson Lloyd-Smith	8	4.535	18	9	5.185	99	3.4%	-1.00 [-3.33, 1.33]
Qi Liu FallowField	22.2	14.3	5	12.6	8.41	16	0.5%	9.60 [-3.59, 22.79]
Ruan Yang Wang	18.1	10.7	68	12.8	6.8	82	3.0%	5.30 [2.36, 8.24]
Shahriarirad Khodamoradi Erfani	6.5	3.6	9	12.5	4.96	104	3.3%	-6.00 [-8.54, -3.46]
Shang Du Lu	9.6	5.9	51	8.7	3.4	365	3.7%	0.90 [-0.76, 2.56]
Wang Li Li	13.3	3.57	15	10.7	5.85	101	3.5%	2.60 [0.46, 4.74]
Wang Lu Li	12.9	6.96	133	8.5	3.7	211	3.9%	4.40 [3.12, 5.68]
Wang Sheng Tu	15	8.3	21	11.8	5.6	113	2.6%	3.20 [-0.50, 6.90]
Webb Moon Barnes	10	5.39	9	10	4.44	30	2.6%	0.00 [-3.86, 3.86]
Wu Chen Cai	14.5	7.1	44	11.65	4.35	40	3.3%	2.85 [0.36, 5.34]
Xu Yang Yang	13	5.85	146	11.7	4.67	92	3.8%	1.30 [-0.05, 2.65]
Yan Yang Wang	13.4	9.56	39	7.5	3.54	9	2.6%	5.90 [2.11, 9.69]
Yang Yu Xu	19.5	11.6	32	13.1	4.3	20	2.3%	6.40 [1.96, 10.84]
Yin Zhou Zhang	13	6.1	52	12.8	5.7	60	3.4%	0.20 [-2.00, 2.40]
Zhang Guo Duan (cohort 1)	10.7	8.44	30	10.3	4.67	156	3.0%	0.40 [-2.71, 3.51]
Zhang Guo Duan (training cohort)	15.05	8.2	96	10.45	4.5	420	3.7%	4.60 [2.90, 6.30]
Zhang Sun Chen	12	7.47	46	8	3.7	273	3.4%	4.00 [1.80, 6.20]
<b>Total (95% CI)</b>			<b>1641</b>			<b>5229</b>	<b>100.0%</b>	<b>2.06 [1.06, 3.06]</b>

Heterogeneity: Tau<sup>2</sup> = 6.30; Chi<sup>2</sup> = 240.68, df = 31 (P < 0.00001); I<sup>2</sup> = 87%

Test for overall effect: Z = 4.04 (P &lt; 0.0001)

Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.39 Direct Bilirubin and Mortality Means [umol/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [umol/L]	SD [umol/L]	Total	Mean [umol/L]	SD [umol/L]	Total		
Du Liang Yang	3.1	2.86	21	2.4	1.5	158	13.0%	0.70 [-0.55, 1.95]
Fu Fei Xiang	5.05	2	34	3.1	1.58	166	14.5%	1.95 [1.24, 2.66]
Mitra Fergusson Lloyd-Smith	1	3.78	18	4	2.96	99	11.0%	-3.00 [-4.84, -1.16]
Qi Liu FallowField	12	4.13	5	3.9	3.54	16	5.3%	8.10 [4.09, 12.11]
Shahriarirad Khodamoradi Erfani	3.93	1.71	9	5.98	2.74	104	13.0%	-2.05 [-3.29, -0.81]
Shang Du Lu	4.9	2	51	3.5	1.87	365	14.8%	1.40 [0.82, 1.98]
Zhang Guo Duan (cohort 1)	3.5	2.74	30	3.3	1.7	156	13.7%	0.20 [-0.82, 1.22]
Zhang Guo Duan (training cohort)	5.3	3.4	96	3.35	1.5	420	14.6%	1.95 [1.25, 2.65]
<b>Total (95% CI)</b>			<b>264</b>			<b>1484</b>	<b>100.0%</b>	<b>0.72 [-0.41, 1.86]</b>

Heterogeneity: Tau<sup>2</sup> = 2.18; Chi<sup>2</sup> = 71.30, df = 7 (P < 0.00001); I<sup>2</sup> = 90%

Test for overall effect: Z = 1.25 (P = 0.21)

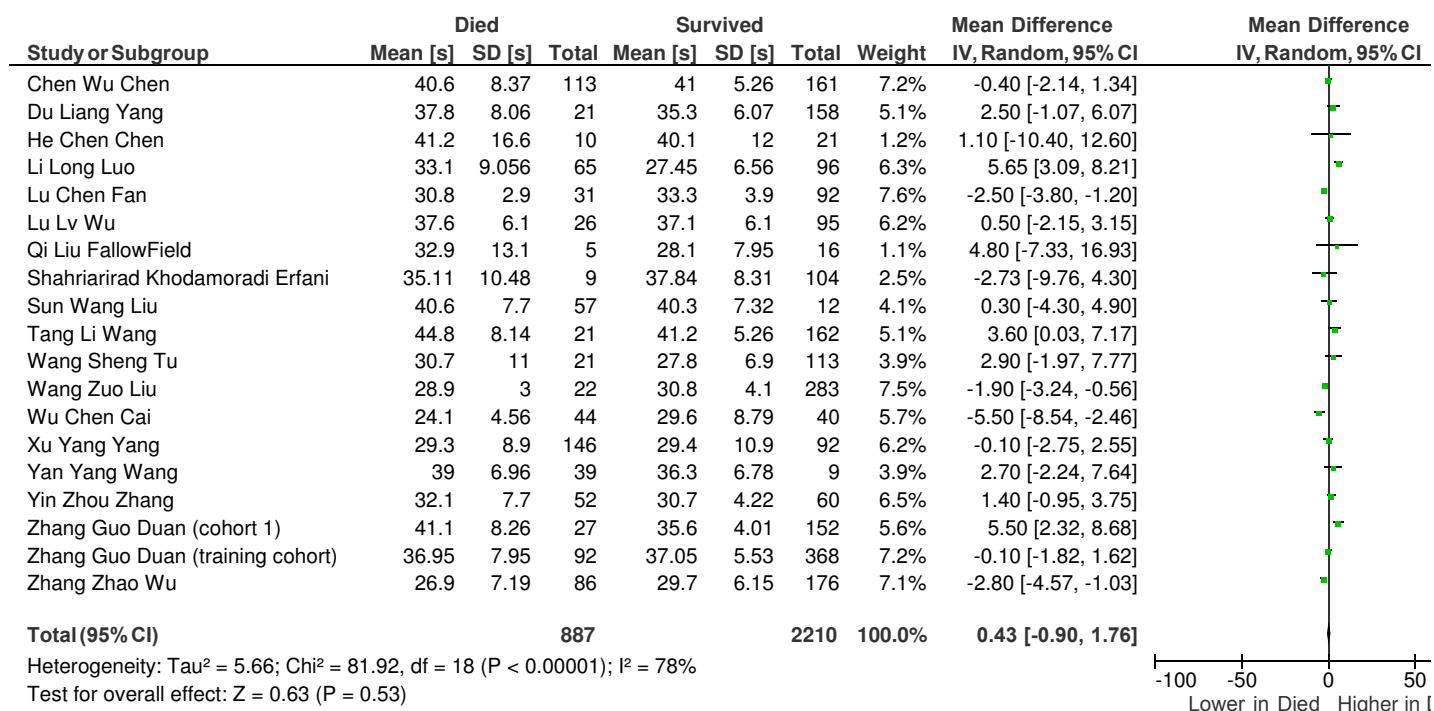
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## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



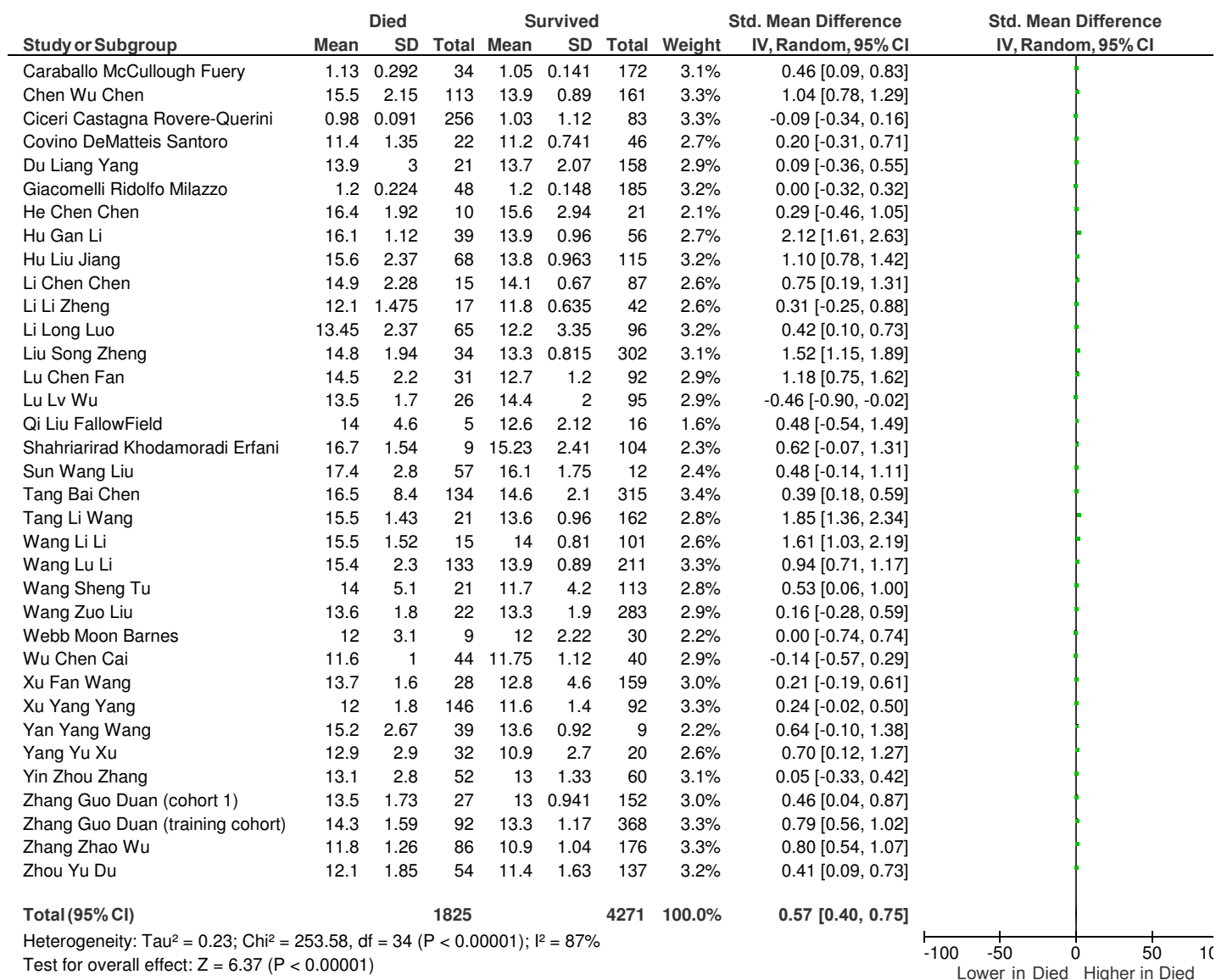
## 1.40 Acitvated Partial Thromboplastin Time (aPTT) and Mortality Means [s]



## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.41 Prothrombin Time/International Normalized Ratio (PT/INR) and Mortality Means



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.42 D-Dimer and Mortality Means [mcg/mL]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [mcg/mL]	SD [mcg/mL]	Total	Mean [mcg/mL]	SD [mcg/mL]	Total		
Bolondi Russo Gamberini	1.651	4.43	4	1.319	0.896	7	0.5%	0.33 [-4.06, 4.72]
Brill Jarvis Ozcan	1.577	1.284	173	1.186	1.337	237	5.1%	0.39 [0.13, 0.65]
Cao Tu Cheng	2.76	2.04	17	1.79	2.21	85	3.4%	0.97 [-0.11, 2.05]
Caraballo McCullough Fuery	1.19	1.91	34	1.25	1.267	172	4.4%	-0.06 [-0.73, 0.61]
Chen Sun Sun	1.4	3.33	82	0.5	0.59	578	4.3%	0.90 [0.18, 1.62]
Chen Wu Chen	4.6	14.6	113	0.6	0.74	161	1.2%	4.00 [1.31, 6.69]
Ciceri Castagna Rovere-Querini	3.15	12.56	46	1.29	2	143	0.7%	1.86 [-1.78, 5.50]
Covino DeMatteis Santoro	1.875	3.202	23	1.374	2.8726	46	2.5%	0.50 [-1.05, 2.05]
Du Liang Yang	1.1	7.6	21	0.5	0.67	158	0.9%	0.60 [-2.65, 3.85]
Foy Carlson Reinertsen	1.499	1.105	155	0.866	0.8363	1043	5.2%	0.63 [0.45, 0.81]
Giacomelli Ridolfo Milazzo	1.74	2.919	48	0.808	0.73037	185	4.0%	0.93 [0.10, 1.76]
Goicoechea Camara Macias	0.794	0.372	11	0.381	0.161	25	5.2%	0.41 [0.18, 0.64]
Gozalbo-Rivera Jiminez Latorre	1.628	0.651	3	1.089	1.3735	13	3.5%	0.54 [-0.51, 1.59]
Gribaldi Fiksel Muschelli	2.06	2.12	113	0.834	0.97	729	4.9%	1.23 [0.83, 1.62]
Grifoni Valoriani Cei	2.089	1.479	6	2.679	9.381	71	1.4%	-0.59 [-3.07, 1.89]
He Chen Chen	1.3	1.07	10	0.6	0.23	21	4.4%	0.70 [0.03, 1.37]
Hu Gan Li	5.8	4.11	39	2.8	1.19	56	2.9%	3.00 [1.67, 4.33]
Hu Liu Jiang	2.7	14.66	68	0.94	0.77	115	0.8%	1.76 [-1.73, 5.25]
Li Chen Chen	2.1	2.43	15	0.7	0.8	87	3.1%	1.40 [0.16, 2.64]
Li Li Zheng	1.67	4.5	17	0.49	0.56	42	1.7%	1.18 [-0.97, 3.33]
Li Long Luo	3.28	31.45	65	0.35	5.96	96	0.2%	2.93 [-4.81, 10.67]
Liu Song Zheng	4.02	5.6	34	0.35	0.326	302	2.0%	3.67 [1.79, 5.55]
Lu Chen Fan	16.6	14.5	31	1.2	3	92	0.4%	15.40 [10.26, 20.54]
Luo Xia Yang	5.38	12.27	100	0.5	0.59	303	1.4%	4.88 [2.47, 7.29]
Pascual-Gomez Lobo Cremades	2.62	2.7	33	0.66	0.78	130	3.8%	1.96 [1.03, 2.89]
Tang Bai Chen	4.7	14.5	134	1.47	3.38	315	1.4%	3.23 [0.75, 5.71]
Tang Li Wang	2.12	3.39	21	0.61	0.696	162	2.7%	1.51 [0.06, 2.96]
Tu Cao Yu	3.3	4.3	25	0.66	0.555	149	2.3%	2.64 [0.95, 4.33]
Wang Li Li	5.9	4.55	15	2.3	1.2	101	1.5%	3.60 [1.29, 5.91]
Wang Lu Li	5.1	22.07	133	0.7	0.81	211	0.7%	4.40 [0.65, 8.15]
Wang Sheng Tu	1.6	6.18	21	0.5	0.59	113	1.3%	1.10 [-1.55, 3.75]
Wang VanOekelen Mouhieddine	20	7.6	7	2	2.6	16	0.3%	18.00 [12.23, 23.77]
Wang Zuo Liu	0.7	1.43	22	0.2	0.22	283	4.5%	0.50 [-0.10, 1.10]
Wu Chen Cai	3.95	7.33	44	0.49	0.65	40	1.7%	3.46 [1.28, 5.64]
Xu Fan Wang	1.22	13.7	28	0.7	2.03	159	0.4%	0.52 [-4.56, 5.60]
Yan Yang Wang	4.95	14.22	39	0.41	0.485	9	0.5%	4.54 [0.07, 9.01]
Zhang Guo Duan (cohort 1)	5.93	5.64	24	0.64	1.222	127	1.6%	5.29 [3.02, 7.56]
Zhang Guo Duan (training cohort)	3.59	5.38	82	0.51	0.88	344	3.2%	3.08 [1.91, 4.25]
Zhang Li Zhang	2.6	7.14	24	1	1.11	142	1.1%	1.60 [-1.26, 4.46]
Zhang Sun Chen	1.09	3.7	46	0.35	0.385	273	3.5%	0.74 [-0.33, 1.81]
Zhang Yang Li	2.295	12.55	17	0.565	0.472	31	0.3%	1.73 [-4.24, 7.70]
Zhang Zhao Wu	2.2	7.41	86	0.6	0.6	176	2.5%	1.60 [0.03, 3.17]
Zhou Yu Du	5.2	14.52	54	0.6	0.52	137	0.7%	4.60 [0.73, 8.47]
Zhu Zhao Lai	1.1	4.3	17	0.4	0.44	308	1.8%	0.70 [-1.34, 2.74]
<b>Total (95% CI)</b>			<b>2100</b>			<b>7993</b>	<b>100.0%</b>	<b>1.54 [1.20, 1.88]</b>

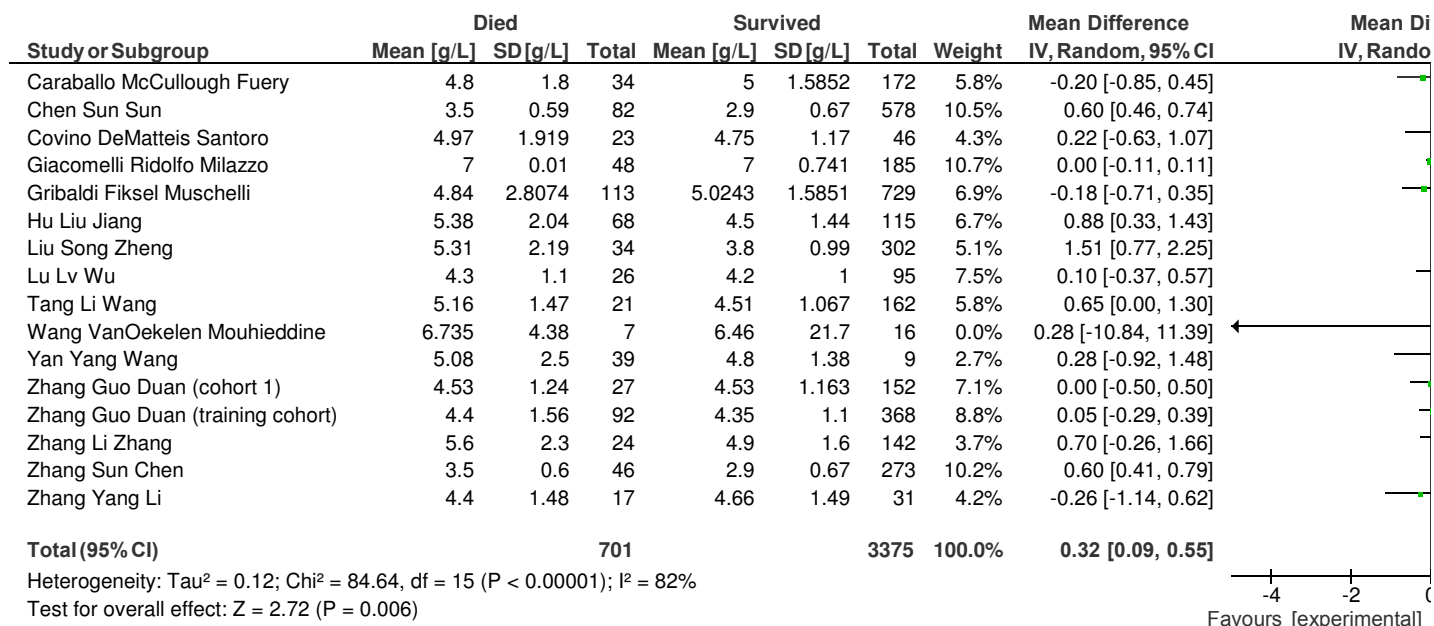
Heterogeneity: Tau<sup>2</sup> = 0.57; Chi<sup>2</sup> = 206.46, df = 43 (P < 0.00001); I<sup>2</sup> = 79%

Test for overall effect: Z = 8.90 (P &lt; 0.00001)

## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.43 Fibrinogen and Mortality Means [g/L]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.44 C Reactive Protein (CRP) and Mortality Means [mcg/mL]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [mcg/mL]	SD [mcg/mL]	Total	Mean [mcg/mL]	SD [mcg/mL]	Total		
Aries Davies Auer	279	212.5	13	102	300.3	17	0.1%	177.00 [-6.63, 360.63]
Benelli Buscarini Canetta	13.2	8.4	72	6.3	7.1	339	4.1%	6.90 [4.82, 8.98]
Bolondi Russo Gamberini	110	40.87	5	119.5	21.87	8	1.1%	-9.50 [-48.40, 29.40]
Brill Jarvis Ozcan	131	92.59	173	68	80.74	237	2.7%	63.00 [45.79, 80.21]
Cao Tu Cheng	118.8	90.85	17	6	36.3	85	0.9%	112.80 [68.93, 156.67]
Caraballo McCullough Fuery	85	141.57	34	50	78.52	172	0.8%	35.00 [-14.01, 84.01]
Chen Sun Sun	5.4	4.44	82	1.5	2.74	578	4.2%	3.90 [2.91, 4.89]
Chen Wu Chen	113	73.56	113	26.2	34.89	161	3.0%	86.80 [72.21, 101.39]
Ciceri Castagna Rovere-Querini	126	118.52	95	82.8	68.79	314	1.9%	43.20 [18.18, 68.22]
Covino DeMatteis Santoro	145.7	99.77	23	62.4	55.2	46	0.9%	83.30 [39.52, 127.08]
De Smet Mellaerts Vandewinkele	75	68.7	19	56	41.48	62	1.4%	19.00 [-13.57, 51.57]
Deng Liu Liu	109.25	100.21	109	3.22	15.378	116	2.5%	106.03 [87.01, 125.05]
Du Liang Yang	86.4	20.94	21	36	53.11	158	3.3%	50.40 [38.20, 62.60]
Fan Wang Ye	78	85.55	4	15	21.9	17	0.3%	63.00 [-21.48, 147.48]
Giacomelli Ridolfo Milazzo	130	122.11	48	40.9	62.296	185	1.3%	89.10 [53.41, 124.79]
Goicoechea Camara Macias	7.4	4.3	11	10.3	8.3	25	4.0%	-2.90 [-7.03, 1.23]
Gozalbo-Rivera Jimenez Latorre	127.17	62.4	3	172	175.27	12	0.1%	-44.83 [-166.57, 76.91]
Gribaldi Fiksel Muschelli	13	8.89	113	7.26	8.15	729	4.1%	5.74 [4.00, 7.48]
He Chen Chen	68.4	50.04	10	3.6	4.07	21	1.5%	64.80 [33.74, 95.86]
Hu Liu Jiang	87.3	69.33	68	14.1	42	115	2.6%	73.20 [55.02, 91.38]
Li Chen Chen	78.7	87.25	15	25.4	57.33	87	0.9%	53.30 [7.53, 99.07]
Li Li Zheng	6.11	6.35	17	2.21	3.93	42	4.1%	3.90 [0.66, 7.14]
Li Long Luo	81.2	51.1	65	8.485	38.257	96	3.0%	72.72 [58.12, 87.31]
Liu Song Zheng	126.52	90.1	34	4.13	13.4	302	1.6%	122.39 [92.07, 152.71]
Lu Chen Fan	143.1	89.6	31	41.5	38.4	92	1.4%	101.60 [69.10, 134.10]
Lu Lv Wu	28.8	12.8	26	27.5	10.9	95	4.0%	1.30 [-4.09, 6.69]
Luo Xia Yang	95	88.7	100	23.8	33.26	303	2.6%	71.20 [53.42, 88.98]
Qi Liu FallowField	50	81.34	5	7.2	41.39	16	0.4%	42.80 [-31.32, 116.92]
Ruan Yang Wang	126.6	106.3	68	34.1	54.5	82	1.7%	92.50 [64.62, 120.38]
Shahriarirad Khodamoradi Erfani	35	25.27	9	34.28	20.23	104	2.7%	0.72 [-16.24, 17.68]
Shang Du Lu	41.8	69.56	51	20.36	24.33	365	2.5%	21.44 [2.19, 40.69]
Sun Wang Liu	102.4	65.85	57	61.3	76.8	12	0.8%	41.10 [-5.59, 87.79]
Tomlins Hamilton Gunning	77	53.54	20	36	39.26	75	1.9%	41.00 [15.91, 66.09]
Tu Cao Yu	118	121.8	25	22	29.3	149	0.8%	96.00 [48.02, 143.98]
Wang Lu Li	101	68.15	133	28	45.185	211	3.2%	73.00 [59.91, 86.09]
Wang Sheng Tu	78	57.65	21	17.9	27.4	113	1.9%	60.10 [34.93, 85.27]
Wang VanOekelen Mouhieddine	294.1	132.9	7	144.9	107.7	16	0.2%	149.20 [37.50, 260.90]
Wang Zuo Liu	52.9	66.87	22	3	11.26	283	1.7%	49.90 [21.93, 77.87]
Wu Chen Cai	90.85	86.3	44	69.2	70.46	40	1.4%	21.65 [-11.92, 55.22]
Xu Fan Wang	91	51.72	28	29	60.967	159	2.3%	62.00 [40.63, 83.37]
Yan Yang Wang	97.2	93.8	39	13	36.21	9	1.2%	84.20 [46.43, 121.97]
Zhang Guo Duan (cohort 1)	80.7	54.3	30	16.15	36.55	156	2.4%	64.55 [44.29, 84.81]
Zhang Guo Duan (training cohort)	79.6	59.89	96	25.92	43.03	420	3.2%	53.68 [41.01, 66.35]
Zhang Li Zhang	76.6	128.9	24	17.7	35.56	142	0.7%	58.90 [7.00, 110.80]
Zhang Sun Chen	5.4	5.154	46	1.1	2.15	273	4.1%	4.30 [2.79, 5.81]
Zhang Yang Li	65.5	60.14	17	23.8	54.2	31	1.3%	41.70 [7.33, 76.07]
Zhang Zhao Wu	117	69.2	86	29.5	52.4	176	2.8%	87.50 [70.95, 104.05]
Zhu Zhao Lai	5.9	3.7	17	1.3	2	308	4.1%	4.60 [2.83, 6.37]
<b>Total (95% CI)</b>			<b>2166</b>			<b>7554</b>	<b>100.0%</b>	<b>43.21 [38.42, 48.00]</b>

Heterogeneity: Tau<sup>2</sup> = 143.27; Chi<sup>2</sup> = 1159.03, df = 47 (P < 0.00001); I<sup>2</sup> = 96%  
 Test for overall effect: Z = 17.68 (P < 0.00001)

## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

(G) Other bias

## 1.45 Erythrocyte Sedimentation Rate (ESR) and Mortality Means [mm/hr]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [mm/hr]	SD [mm/hr]	Total	Mean [mm/hr]	SD [mm/hr]	Total		
Chen Wu Chen	38.5	31.33	113	28	21.63	161	15.0%	10.50 [3.83, 17.17]
Hu Liu Jiang	47	30.37	68	28	30.37	115	10.8%	19.00 [9.89, 28.11]
Li Long Luo	45	15	65	37	9.26	96	20.9%	8.00 [3.91, 12.09]
Liu Song Zheng	31	50	34	40	35.56	302	4.2%	-9.00 [-26.28, 8.28]
Shahriarirad Khodamoradi Erfani	41.5	24.89	9	46	21.93	104	4.4%	-4.50 [-21.30, 12.30]
Wu Chen Cai	59.5	24.66	44	51.6	22.44	40	9.5%	7.90 [-2.17, 17.97]
Yan Yang Wang	38.5	45.7	39	32	35.6	9	1.8%	6.50 [-20.83, 33.83]
Zhang Guo Duan (cohort 1)	73	22.39	3	52	27.41	77	2.0%	21.00 [-5.07, 47.07]
Zhang Guo Duan (training cohort)	53	38.52	96	47	37.78	420	11.7%	6.00 [-2.51, 14.51]
Zhang Li Zhang	52	44.36	24	31	27.4	142	3.8%	21.00 [2.69, 39.31]
Zhang Zhao Wu	56.1	26	86	52	20.3	176	15.9%	4.10 [-2.16, 10.36]
<b>Total (95% CI)</b>			<b>581</b>			<b>1642</b>	<b>100.0%</b>	<b>8.17 [4.33, 12.00]</b>
Heterogeneity: Tau <sup>2</sup> = 13.97; Chi <sup>2</sup> = 16.59, df = 10 (P = 0.08); I <sup>2</sup> = 40%								
Test for overall effect: Z = 4.17 (P < 0.0001)								

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Low

## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.46 Interleukin 1 Beta and Mortality Means [pg/mL]

Study or Subgroup	Died			Survived			Weight	Mean Difference		I <sup>2</sup>
	Mean [pg/mL]	SD [pg/mL]	Total	Mean [pg/mL]	SD [pg/mL]	Total		IV, Random, 95% CI		
Li Chen Chen	4.5	0.68	15	4.9	0.67	87	75.1%	-0.40 [-0.77, -0.03]		
Wang VanOekelen Mouhieddine	0.5	0.9	7	0.5	0.8	16	17.3%	0.00 [-0.77, 0.77]		
Xu Fan Wang	4.9	3.67	28	4.9	1.89	159	5.4%	0.00 [-1.39, 1.39]		
Zhang Li Zhang	5	5	24	5	5	142	2.2%	0.00 [-2.16, 2.16]		←
<b>Total (95% CI)</b>			<b>74</b>			<b>404</b>	<b>100.0%</b>	<b>-0.30 [-0.62, 0.02]</b>		

Heterogeneity: Tau<sup>2</sup> = 0.00; Chi<sup>2</sup> = 1.11, df = 3 (P = 0.78); I<sup>2</sup> = 0%  
 Test for overall effect: Z = 1.83 (P = 0.07)

Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.47 Interleukin 2 Receptor and Mortality Means [U/mL]

Study or Subgroup	Died			Survived			Weight	Mean Difference		Mean Difference
	Mean [U/mL]	SD [U/mL]	Total	Mean [U/mL]	SD [U/mL]	Total		IV, Random, 95% CI	IV, Random, 95% CI	
Chen Wu Chen	1,183	651.85	113	566.5	303.9	161	23.6%	616.50 [487.47, 745.53]		
Hu Gan Li	1,188.9	494.3	39	851.5	620	56	14.6%	337.40 [112.82, 561.98]		
Hu Liu Jiang	1,137.5	698.52	68	574.5	406.3	115	18.2%	563.00 [381.13, 744.87]		
Li Chen Chen	1,166.5	675	15	571.5	347.3	87	8.1%	595.00 [245.70, 944.30]		
Wang Lu Li	1,098	585.9	133	716	367.4	211	25.6%	382.00 [270.77, 493.23]		
Yan Yang Wang	1,180	535.56	39	541	389.8	9	9.9%	639.00 [333.87, 944.13]		
<b>Total (95% CI)</b>			<b>407</b>			<b>639</b>	<b>100.0%</b>	<b>506.43 [392.25, 620.61]</b>		

Heterogeneity: Tau<sup>2</sup> = 10051.66; Chi<sup>2</sup> = 10.96, df = 5 (P = 0.05); I<sup>2</sup> = 54%  
 Test for overall effect: Z = 8.69 (P < 0.00001)

Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.48 Interleukin-6 and Mortality Means [pg/mL]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [pg/mL]	SD [pg/mL]	Total	Mean [pg/mL]	SD [pg/mL]	Total		
Bolondi Russo Gamberini	31.75	13.9	4	69.3	30.3	5	2.1%	-37.55 [-67.40, -7.70]
Chen Sun Sun	43.8	31.48	87	3.9	5.48	578	7.8%	39.90 [33.27, 46.53]
Chen Wu Chen	72	82.4	113	13	16.4	161	4.8%	59.00 [43.60, 74.40]
Ciceri Castagna Rovere-Querini	86.6	110.8	34	49.22	87.29	132	1.3%	37.38 [-2.73, 77.49]
Fan Wang Ye	195	123.5	4	12	10.6	15	0.2%	183.00 [61.85, 304.15]
Gozalbo-Rivera Jiminez Latorre	99.24	99	1	478.45	536.206	4	0.0%	-379.21 [-939.36, 180.94]
Gribaldi Fiksel Muschelli	154	50.37	113	44.816	76.296	729	6.3%	109.18 [98.37, 120.00]
Grifoni Valoriani Cei	323.75	254.69	6	202.275	815.75	71	0.0%	121.47 [-156.98, 399.93]
Hu Gan Li	139.1	93.9	39	31.9	29.6	56	2.0%	107.20 [76.73, 137.67]
Hu Liu Jiang	68	87.92	68	7.49	18.84	115	3.4%	60.51 [39.33, 81.69]
Li Chen Chen	48.4	107.4	15	4.2	10.74	87	0.8%	44.20 [-10.20, 98.60]
Ruan Yang Wang	11.4	8.5	68	6.8	3.61	82	8.9%	4.60 [2.43, 6.77]
Sun Wang Liu	91.4	111.9	57	29.3	36.4	12	1.6%	62.10 [26.49, 97.71]
Tu Cao Yu	108.8	100.6	25	16.8	54.5	149	1.3%	92.00 [51.61, 132.39]
Wang Lu Li	61.1	75.8	133	10.8	25.7	211	5.5%	50.30 [36.96, 63.64]
Wang VanOekelen Mouhieddine	296.8	821.2	7	119.3	102.4	16	0.0%	177.50 [-432.91, 787.91]
Wu Chen Cai	10.01	5.56	44	6.05	1.4	40	9.0%	3.96 [2.26, 5.66]
Xu Fan Wang	29.8	36.5	28	13.7	24.57	159	5.2%	16.10 [2.05, 30.15]
Xu Yang Yang	9.1	4.3	146	9.1	4.07	92	9.0%	0.00 [-1.09, 1.09]
Yan Yang Wang	55.77	82.16	39	22.2	28.63	9	1.9%	33.57 [1.71, 65.43]
Yang Sheng Huang	12.8	3.48	40	8.8	6.37	165	9.0%	4.00 [2.55, 5.45]
Zhang Li Zhang	57.5	80.45	24	11.8	23.26	142	1.9%	45.70 [13.29, 78.11]
Zhang Zhao Wu	9.9	4.67	86	6.3	2	176	9.0%	3.60 [2.57, 4.63]
Zhou Yu Du	11	5.1	54	6.3	2.15	137	9.0%	4.70 [3.29, 6.11]
<b>Total (95% CI)</b>			<b>1235</b>			<b>3343</b>	<b>100.0%</b>	<b>26.60 [21.65, 31.56]</b>

Heterogeneity: Tau<sup>2</sup> = 70.63; Chi<sup>2</sup> = 760.68, df = 23 (P < 0.00001); I<sup>2</sup> = 97%

Test for overall effect: Z = 10.52 (P &lt; 0.00001)

## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



## 1.49 Interleukin 8 and Mortality Means [pg/mL]

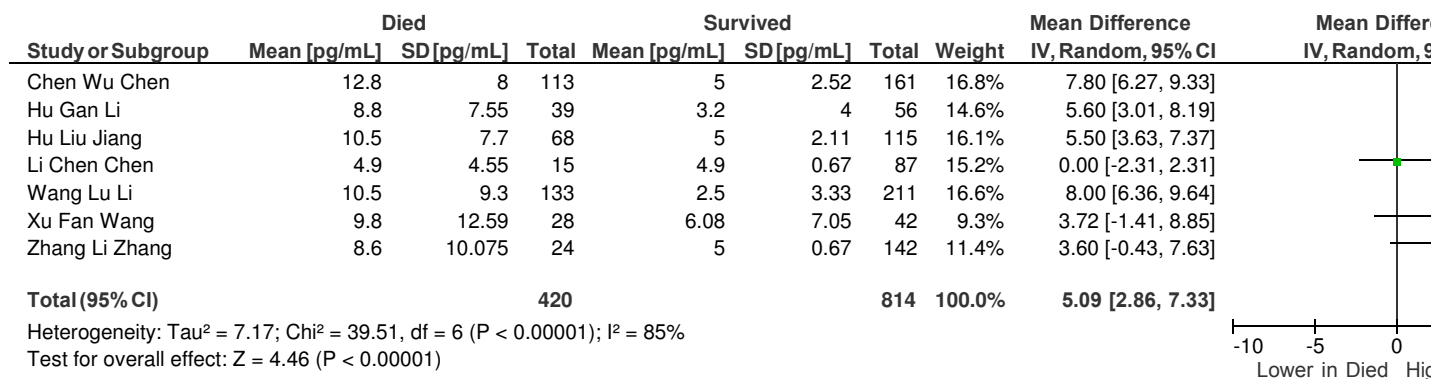
Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [pg/mL]	SD [pg/mL]	Total	Mean [pg/mL]	SD [pg/mL]	Total		
Chen Wu Chen	28.3	39.56	113	11.4	9.19	161	18.1%	16.90 [9.47, 24.33]
Hu Gan Li	41.7	24.2	39	18.5	11.56	56	15.5%	23.20 [15.02, 31.38]
Hu Liu Jiang	26.6	40.52	68	11.5	12.3	115	11.3%	15.10 [5.21, 24.99]
Li Chen Chen	22	10.92	15	9.3	9.04	87	25.7%	12.70 [6.86, 18.54]
Wang Lu Li	28.3	32.9	113	12.5	10.3	211	23.6%	15.80 [9.58, 22.02]
Wang VanOekelen Mouhieddine	137	89.6	7	46.6	67.6	16	0.2%	90.40 [16.22, 164.58]
Yan Yang Wang	27.2	27.5	39	21.9	138.4	9	0.2%	5.30 [-85.53, 96.13]
Zhang Li Zhang	28.4	36.77	24	10	10.6	142	5.4%	18.40 [3.59, 33.21]
<b>Total (95% CI)</b>			<b>418</b>			<b>797</b>	<b>100.0%</b>	<b>16.57 [12.99, 20.14]</b>
Heterogeneity: Tau <sup>2</sup> = 4.02; Chi <sup>2</sup> = 8.27, df = 7 (P = 0.31); I <sup>2</sup> = 15%								
Test for overall effect: Z = 9.09 (P < 0.00001)								

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## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.50 Interleukin 10 and Mortality Means [pg/mL]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.51 Tumor Necrosis Factor Alpha and Mortality Means [pg/mL]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [pg/mL]	SD [pg/mL]	Total	Mean [pg/mL]	SD [pg/mL]	Total		
Chen Wu Chen	11.8	6.67	113	7.9	2.15	161	13.3%	3.90 [2.63, 5.17]
Hu Gan Li	13.1	5.46	39	9.3	4.81	56	12.6%	3.80 [1.67, 5.93]
Hu Liu Jiang	8.7	3.41	115	11.1	5.852	68	13.1%	-2.40 [-3.92, -0.88]
Li Chen Chen	13	11.38	15	7.3	2.81	87	8.3%	5.70 [-0.09, 11.49]
Wang Lu Li	10.7	6.22	133	8.2	3.04	211	13.4%	2.50 [1.37, 3.63]
Wang VanOekelen Mouhieddine	21.3	15.2	7	29.4	8.4	16	3.6%	-8.10 [-20.09, 3.89]
Xu Fan Wang	21.3	3.34	28	10.86	9.54	159	12.8%	10.44 [8.51, 12.37]
Yan Yang Wang	12.8	8.6	39	7.3	4.55	9	10.5%	5.50 [1.48, 9.52]
Zhang Li Zhang	13.3	5.41	24	8.2	4.44	142	12.4%	5.10 [2.82, 7.38]
<b>Total (95% CI)</b>			<b>513</b>			<b>909</b>	<b>100.0%</b>	<b>3.74 [1.07, 6.41]</b>

Heterogeneity:  $\tau^2 = 13.54$ ;  $\chi^2 = 116.82$ ,  $df = 8$  ( $P < 0.00001$ );  $I^2 = 93\%$

Test for overall effect:  $Z = 2.75$  ( $P = 0.006$ )

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## Risk of bias legend

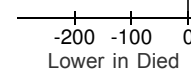
- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.52 Myoglobin and Mortality Means [ng/mL]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI	Mean Dif IV, Rando
	Mean [ng/mL]	SD [ng/mL]	Total	Mean [ng/mL]	SD [ng/mL]	Total			
Du Liang Yang	162	221.8	21	32.3	33.2	158	9.2%	129.70 [34.70, 224.70]	
Li Li Zheng	78.75	253.9	17	0	20.6	42	7.4%	78.75 [-42.10, 199.60]	
Ruan Yang Wang	258.9	307.6	68	77.7	136.1	82	10.5%	181.20 [102.38, 260.02]	
Shang Du Lu	112.5	74.52	51	19.46	18.65	365	14.6%	93.04 [72.50, 113.58]	
Wang Lu Li	179	195.56	133	31	25.9	211	13.9%	148.00 [114.58, 181.42]	
Xu Yang Yang	100	71.1	146	110.5	78.89	92	14.6%	-10.50 [-30.32, 9.32]	
Zhang Ding Cao	143.2	287.23	18	27.83	19.85	117	6.7%	115.37 [-17.37, 248.11]	
Zhang Li Zhang	166.3	255.7	24	48.4	142	419	8.6%	117.90 [14.70, 221.10]	
Zhang Zhao Wu	85.5	98.32	86	39.7	32.52	176	14.5%	45.80 [24.47, 67.13]	
<b>Total (95% CI)</b>			<b>564</b>			<b>1662</b>	<b>100.0%</b>	<b>93.88 [47.52, 140.25]</b>	

Heterogeneity:  $\tau^2 = 3732.51$ ;  $\text{Chi}^2 = 99.87$ ,  $\text{df} = 8$  ( $P < 0.00001$ );  $I^2 = 92\%$

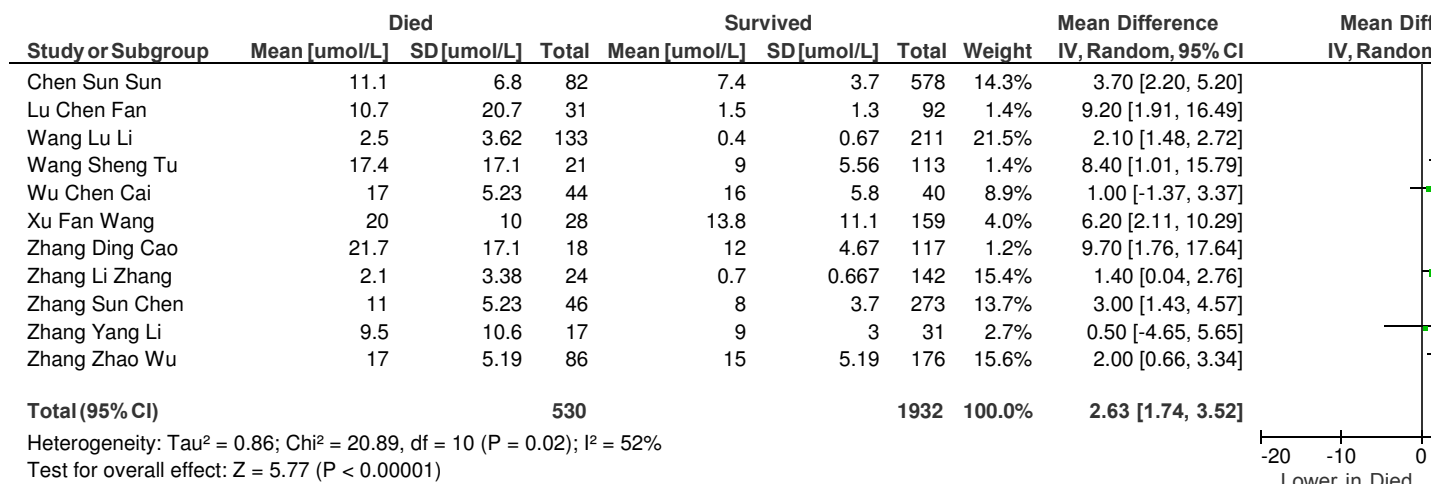
Test for overall effect:  $Z = 3.97$  ( $P < 0.0001$ )



## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

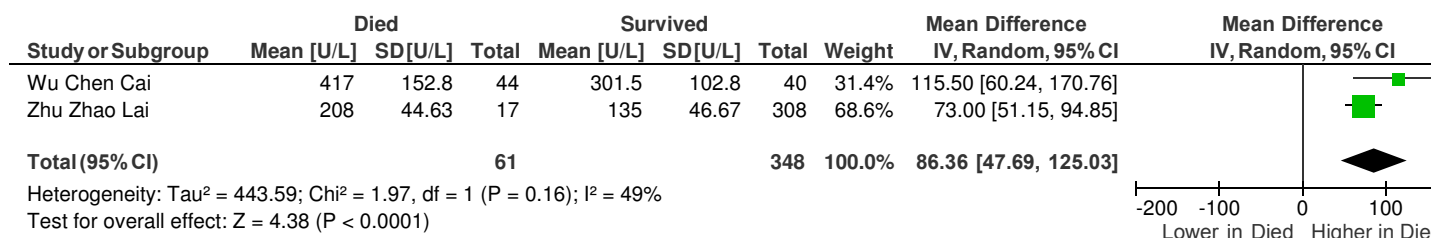
1.53 Creatine Kinase Isoenzymes/Myocardial Band (CKMB) and Mortality Means [umol/L]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

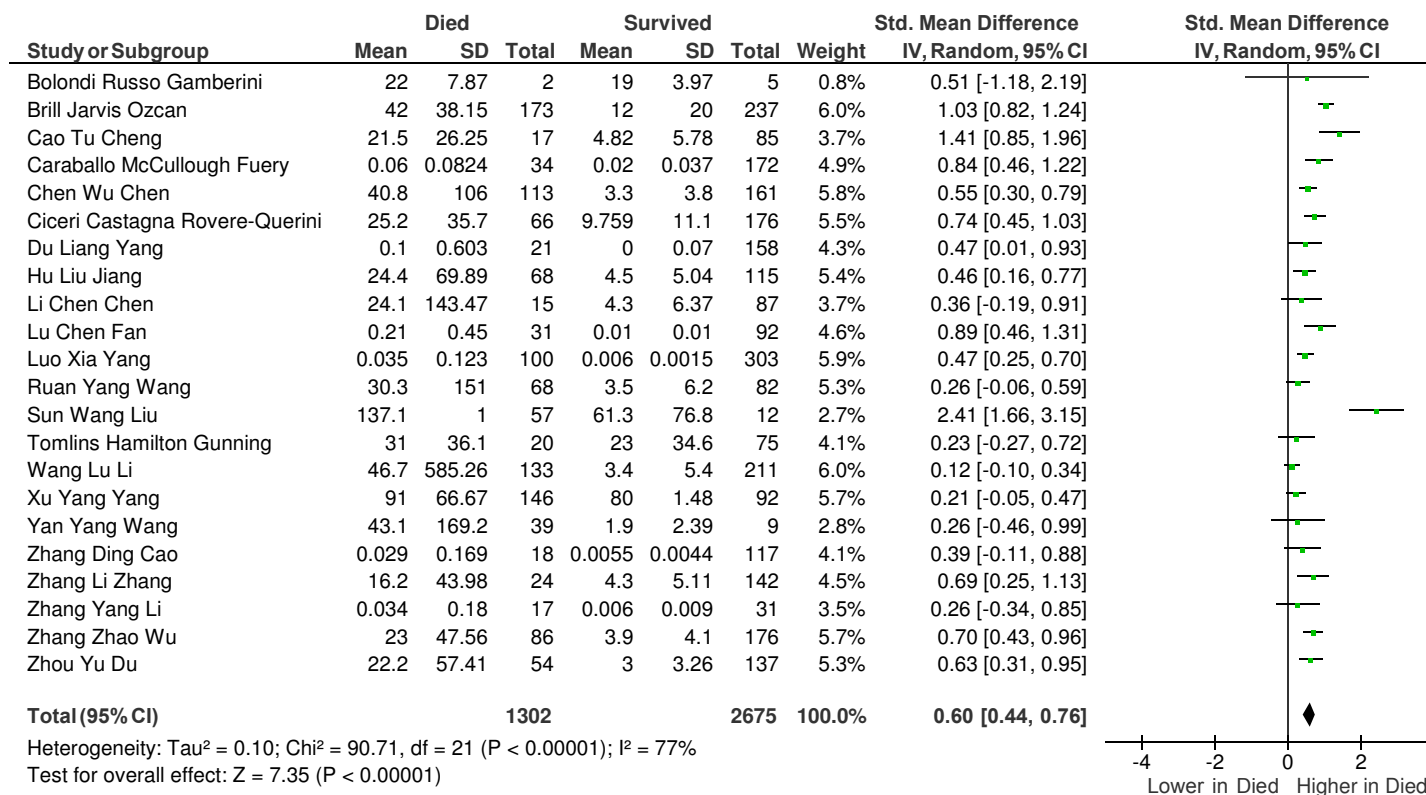
1.54 Alpha Hydroxybutyrate Dehydrogenase and Mortality Means [U/L]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.55 Troponin and Mortality Means



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.56 Brain Natriuretic Peptide and Mortality Means

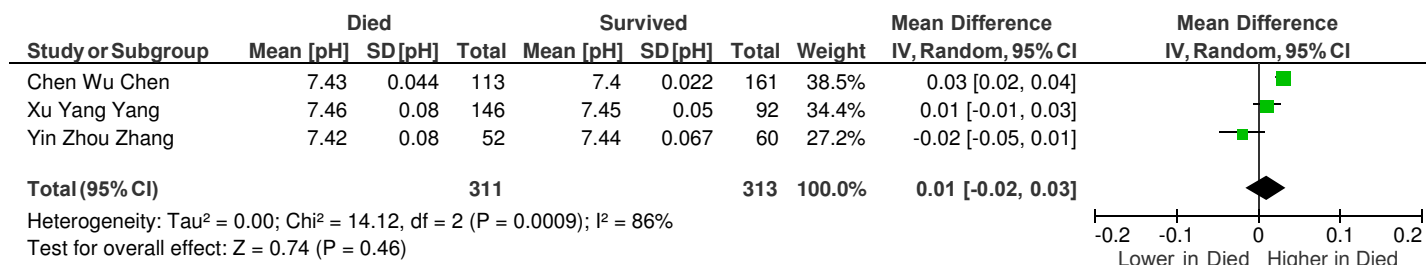
Study or Subgroup	Died			Survived			Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
	Mean	SD	Total	Mean	SD	Total			
Cao Tu Cheng	46.1	156.35	17	5.42	46.74	85	6.0%	0.53 [0.01, 1.06]	
Caraballo McCullough Fuery	4,275	4,689.88	34	1,289	2,652.593	172	6.5%	0.97 [0.59, 1.35]	
Chen Wu Chen	800	1,057.6	113	72	122.2	161	6.8%	1.06 [0.80, 1.32]	
Ciceri Castagna Rovere-Querini	1,150	2,175.556	58	153.54	285.2	145	6.7%	0.84 [0.52, 1.15]	
Du Liang Yang	970	2,193.3	21	390	785.56	158	6.3%	0.55 [0.09, 1.01]	
Gribaldi Fiksel Muschelli	1,014	2,917.037	113	184.8	667.41	729	6.9%	0.67 [0.47, 0.87]	
Hu Gan Li	1,848	791.7	39	232.1	98.3	56	5.8%	3.13 [2.52, 3.74]	
Hu Liu Jiang	798	70,000	68	98	1,386.67	115	6.7%	0.02 [-0.28, 0.32]	
Li Chen Chen	817.5	2,035.28	15	92.5	166.07	87	5.9%	0.93 [0.36, 1.49]	
Lu Chen Fan	4,868	8,839	31	283.4	229.1	92	6.4%	1.03 [0.61, 1.46]	
Sun Wang Liu	1,128	2,549.4	57	811	2,044.24	12	5.7%	0.13 [-0.50, 0.75]	
Wen Yali Zirui	305.6	663.87	34	87.1	12.9	27	6.1%	0.43 [-0.08, 0.95]	
Yan Yang Wang	970	1,638.5	39	46	181.8	9	5.3%	0.61 [-0.13, 1.35]	
Zhang Li Zhang	746	849.6	24	149	193.9	142	6.2%	1.63 [1.16, 2.09]	
Zhang Zhao Wu	72.2	81.78	86	31.4	23.78	176	6.8%	0.80 [0.54, 1.07]	
Zhu Zhao Lai	295.8	173.3	17	31.6	71.1	308	6.0%	3.32 [2.77, 3.87]	
<b>Total (95% CI)</b>			<b>766</b>			<b>2474</b>	<b>100.0%</b>	<b>1.03 [0.68, 1.37]</b>	

Heterogeneity: Tau<sup>2</sup> = 0.43; Chi<sup>2</sup> = 188.79, df = 15 (P < 0.00001); I<sup>2</sup> = 92%  
 Test for overall effect: Z = 5.90 (P < 0.00001)

Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

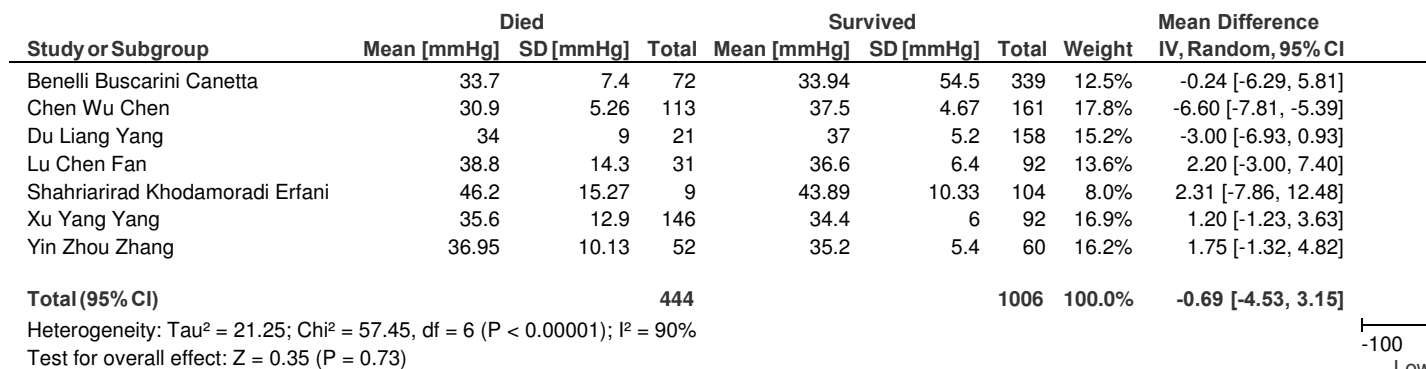
1.57 pH and Mortality Means [pH]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.58 Partial Pressure of Carbon Dioxide (PaCO2) and Mortality Means [mmHg]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



## 1.59 Partial Pressure of Oxygen (PaO2) and Mortality Means [mmHg]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [mmHg]	SD [mmHg]	Total	Mean [mmHg]	SD [mmHg]	Total		
Benelli Buscarini Canetta	64.4	27	72	70.83	21.4	339	14.9%	-6.43 [-13.07, 0.21]
Chen Wu Chen	53.2	24.6	113	121	53.85	161	14.5%	-67.80 [-77.27, -58.33]
Du Liang Yang	56	16.58	21	64.5	24.4	158	14.7%	-8.50 [-16.55, -0.45]
Giacomelli Ridolfo Milazzo	64.5	14.414	48	70.5	13.7	185	15.1%	-6.00 [-10.53, -1.47]
Lu Chen Fan	61.3	40.7	31	91.2	28.5	92	13.3%	-29.90 [-45.37, -14.43]
Shahriarirad Khodamoradi Erfani	47.4	27.23	9	29.73	10.83	104	12.8%	17.67 [-0.24, 35.58]
Yin Zhou Zhang	61.9	20.89	52	66.9	16.8	60	14.8%	-5.00 [-12.09, 2.09]
<b>Total (95% CI)</b>			<b>346</b>			<b>1099</b>	<b>100.0%</b>	<b>-15.39 [-31.20, 0.42]</b>

Heterogeneity:  $\tau^2 = 426.13$ ;  $\chi^2 = 162.85$ ,  $df = 6$  ( $P < 0.00001$ );  $I^2 = 96\%$   
 Test for overall effect:  $Z = 1.91$  ( $P = 0.06$ )

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## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.60 Bicarbonate (HCO3) and Mortality Means [mmol/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [mmol/L]	SD [mmol/L]	Total	Mean [mmol/L]	SD [mmol/L]	Total		
Chen Wu Chen	22.6	3.48	113	23.9	1.93	161	27.6%	-1.30 [-2.01, -0.59]
Hu Liu Jiang	21.5	3.926	68	23.9	2.296	115	22.8%	-2.40 [-3.42, -1.38]
Shahriarirad Khodamoradi Erfani	25.82	4.35	9	25.6	3.53	104	6.7%	0.22 [-2.70, 3.14]
Xu Yang Yang	24.3	4.4	146	24.5	3.3	92	23.4%	-0.20 [-1.18, 0.78]
Yin Zhou Zhang	23.1	4.07	52	23.7	2.33	60	19.5%	-0.60 [-1.85, 0.65]
<b>Total (95% CI)</b>			<b>388</b>			<b>532</b>	<b>100.0%</b>	<b>-1.05 [-1.90, -0.21]</b>

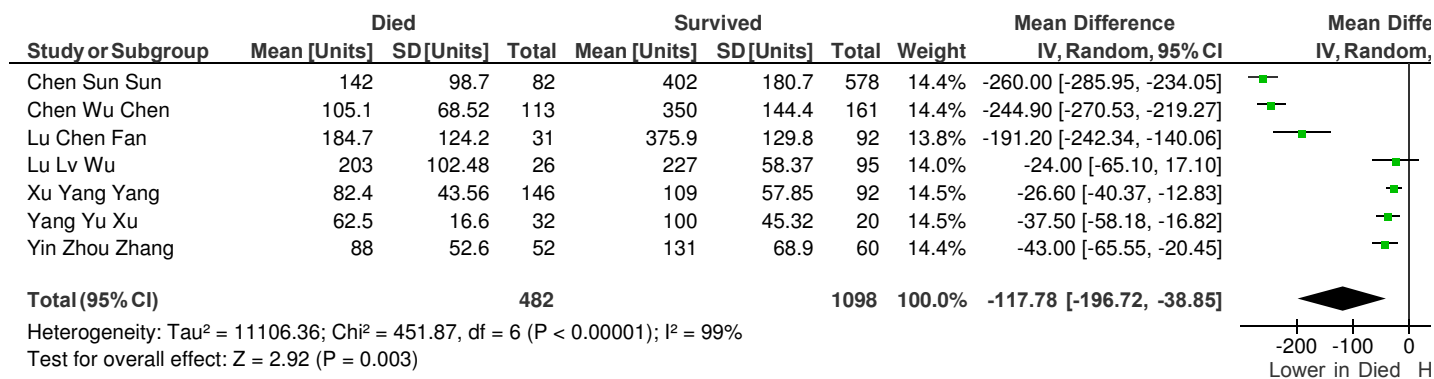
Heterogeneity:  $\tau^2 = 0.54$ ;  $\chi^2 = 11.09$ ,  $df = 4$  ( $P = 0.03$ );  $I^2 = 64\%$   
 Test for overall effect:  $Z = 2.45$  ( $P = 0.01$ )

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## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.61 PaO2:FiO2 Ratio and Mortality Means [Units]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.62 Lactic Acid and Mortality Means [mmol/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [mmol/L]	SD [mmol/L]	Total	Mean [mmol/L]	SD [mmol/L]	Total		
Benelli Buscarini Canetta	1.7	1.1	72	1.1	0.6	339	10.5%	0.60 [0.34, 0.86]
Brill Jarvis Ozcan	1.5	0.852	173	1.2	0.52	237	11.2%	0.30 [0.16, 0.44]
Chen Sun Sun	2.1	1.04	82	1.2	0.741	578	10.7%	0.90 [0.67, 1.13]
Ciceri Castagna Rovere-Querini	1.03	0.11	90	1.23	0.48	289	11.4%	-0.20 [-0.26, -0.14]
Lu Chen Fan	3.1	2.1	31	1.8	0.6	92	6.5%	1.30 [0.55, 2.05]
Mitra Fergusson Lloyd-Smith	1.6	0.53	18	1.5	0.52	99	10.5%	0.10 [-0.17, 0.37]
Pascual-Gomez Lobo Cremades	1.51	0.46	33	1.38	0.69	130	10.9%	0.13 [-0.07, 0.33]
Sun Wang Liu	2.1	1.04	57	1.1	0.46	12	9.6%	1.00 [0.62, 1.38]
Yang Yu Xu	1.9	1.35	32	1.6	0.23	20	8.8%	0.30 [-0.18, 0.78]
Yin Zhou Zhang	1.8	1.04	52	1.65	0.76	60	9.9%	0.15 [-0.19, 0.49]
<b>Total (95% CI)</b>			<b>640</b>			<b>1856</b>	<b>100.0%</b>	<b>0.42 [0.12, 0.71]</b>

Heterogeneity: Tau<sup>2</sup> = 0.19; Chi<sup>2</sup> = 180.57, df = 9 (P < 0.00001); I<sup>2</sup> = 95%

Test for overall effect: Z = 2.79 (P = 0.005)

## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.63 Ferritin and Mortality Means [ng/mL]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [ng/mL]	SD [ng/mL]	Total	Mean [ng/mL]	SD [ng/mL]	Total		
Bolondi Russo Gamberini	1,605.5	849.9	4	1,022.5	1,082.6	6	2.1%	583.00 [-618.70, 1784.70]
Caraballo McCullough Fuery	694	967	34	501	511.11	172	6.3%	193.00 [-140.89, 526.89]
Chen Wu Chen	1,418.3	978.37	113	481.2	449.185	161	7.1%	937.10 [743.83, 1130.37]
Ciceri Castagna Rovere-Querini	1,570	1,858.5	54	1,304.4	988.3	202	5.2%	265.60 [-248.49, 779.69]
Covino DeMatteis Santoro	806	613.2	23	721	658.5	46	6.4%	85.00 [-229.66, 399.66]
Gozalbo-Rivera Jiminez Latorre	582	582	1	531.8	175.27	12	2.3%	50.20 [-1094.80, 1195.20]
Gribaldi Fiksel Muschelli	871	131.852	113	554.85	609.63	729	7.5%	316.15 [265.66, 366.64]
Hu Liu Jiang	1,508.3	577.04	68	578.15	596.67	115	7.1%	930.15 [754.93, 1105.37]
Ruan Yang Wang	1,927.6	1,030.9	68	614	752.2	82	6.5%	1313.60 [1019.42, 1607.78]
Sun Wang Liu	1,804.4	1,078.6	57	920.5	1,214.87	12	3.8%	883.90 [141.69, 1626.11]
Tomlins Hamilton Gunning	816	874.4	6	493	575.7	21	3.9%	323.00 [-418.72, 1064.72]
Wang VanOekelen Mouhieddine	3,409	2,018	7	1,282	2,170.5	16	1.1%	2127.00 [292.36, 3961.64]
Wu Chen Cai	1,096.21	1,076.67	44	853	1,225.3	40	5.3%	243.21 [-252.16, 738.58]
Yan Yang Wang	1,612	1,191.1	39	432.5	433.98	9	5.4%	1179.50 [710.32, 1648.68]
Zhang Guo Duan (cohort 1)	2,000	748.77	9	364.3	268.34	69	5.3%	1635.70 [1142.43, 2128.97]
Zhang Guo Duan (training cohort)	1,169.81	609.51	25	697.07	536.01	132	6.8%	472.74 [216.92, 728.56]
Zhang Li Zhang	1,508	1,612.6	24	564.3	936	142	4.3%	943.70 [280.42, 1606.98]
Zhang Zhao Wu	1,107.1	1,040.67	86	507.1	456.15	176	6.9%	600.00 [369.96, 830.04]
Zhou Yu Du	1,435.3	941.56	54	503.2	487	137	6.7%	932.10 [668.06, 1196.14]
<b>Total (95% CI)</b>			<b>829</b>			<b>2279</b>	<b>100.0%</b>	<b>696.78 [488.42, 905.15]</b>

Heterogeneity: Tau<sup>2</sup> = 150271.80; Chi<sup>2</sup> = 175.18, df = 18 (P < 0.00001); I<sup>2</sup> = 90%

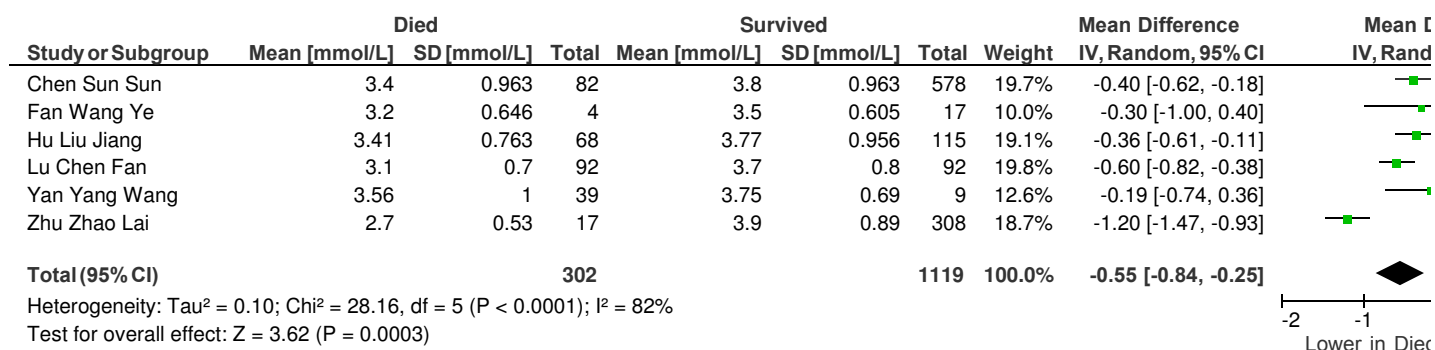
Test for overall effect: Z = 6.55 (P < 0.00001)

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## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

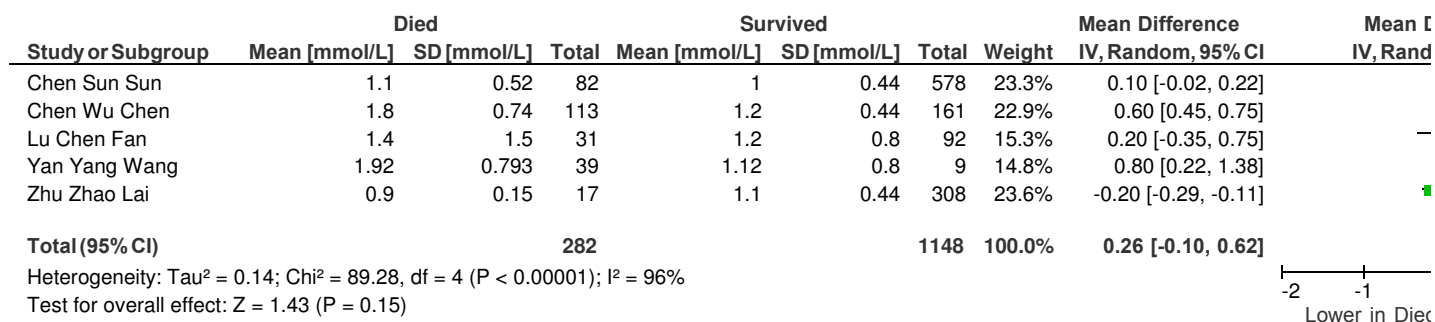
## 1.64 Total Cholesterol and Mortality Means [mmol/L]



## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.65 Triglycerides and Mortality Means [mmol/L]



## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.66 High Density Lipoprotein and Mortality Means [mmol/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI	Mean I IV, Rand
	Mean [mmol/L]	SD [mmol/L]	Total	Mean [mmol/L]	SD [mmol/L]	Total			
Chen Sun Sun	0.9	0.296	82	1	0.296	578	44.5%	-0.10 [-0.17, -0.03]	
Fan Wang Ye	0.9	0.081	4	1.1	0.454	17	3.9%	-0.20 [-0.43, 0.03]	
Lu Chen Fan	1	0.3	31	1.2	0.3	92	14.0%	-0.20 [-0.32, -0.08]	
Zhu Zhao Lai	0.97	0.14	17	1.1	0.3	308	37.6%	-0.13 [-0.20, -0.06]	
<b>Total (95% CI)</b>			<b>134</b>			<b>995</b>	<b>100.0%</b>	<b>-0.13 [-0.17, -0.08]</b>	

Heterogeneity: Tau<sup>2</sup> = 0.00; Chi<sup>2</sup> = 2.35, df = 3 (P = 0.50); I<sup>2</sup> = 0%  
 Test for overall effect: Z = 5.54 (P < 0.00001)

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## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.67 Low Density Lipoprotein (LDL) and Mortality Means [mmol/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI	Mean I IV, Rand
	Mean [mmol/L]	SD [mmol/L]	Total	Mean [mmol/L]	SD [mmol/L]	Total			
Chen Sun Sun	2	0.89	82	2.2	0.74	578	22.8%	-0.20 [-0.40, 0.00]	
Fan Wang Ye	2	0.081	4	2.8	0.605	17	18.6%	-0.80 [-1.10, -0.50]	
Lu Chen Fan	1.7	0.5	31	2.1	0.6	92	22.2%	-0.40 [-0.61, -0.19]	
Wu Chen Cai	1.67	0.84	44	2	0.66	40	17.6%	-0.33 [-0.65, -0.01]	
Zhu Zhao Lai	1.5	0.6	17	2.2	0.7	308	18.7%	-0.70 [-1.00, -0.40]	
<b>Total (95% CI)</b>			<b>178</b>			<b>1035</b>	<b>100.0%</b>	<b>-0.47 [-0.69, -0.25]</b>	

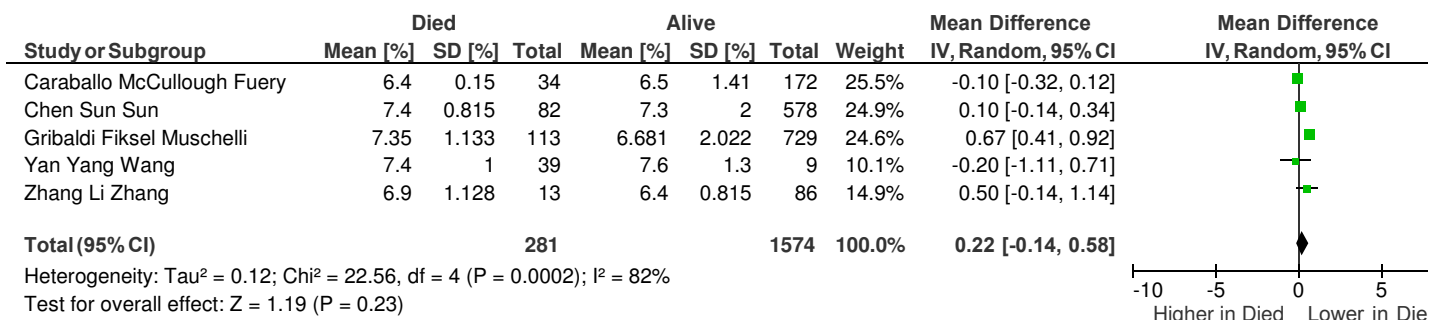
Heterogeneity: Tau<sup>2</sup> = 0.05; Chi<sup>2</sup> = 14.54, df = 4 (P = 0.006); I<sup>2</sup> = 72%  
 Test for overall effect: Z = 4.18 (P < 0.0001)

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## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

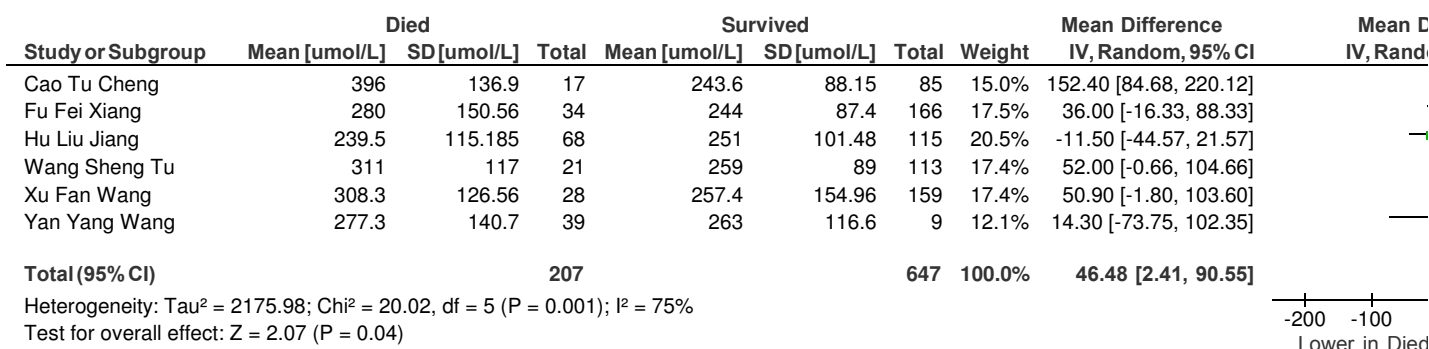
1.68 Hemoglobin A1c and Mortality Means [%]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.69 Uric Acid and Mortality Means [umol/L]



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.70 Creatine Kinase (CK, CPK) and Mortality Means [U/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI	Mean I IV, Rand
	Mean [U/L]	SD[U/L]	Total	Mean [U/L]	SD[U/L]	Total			
Benelli Buscarini Canetta	650	1,660	72	348.72	972.3	339	0.3%	301.28 [-95.88, 698.44]	—
Chen Sun Sun	144.3	141	82	73	56.4	578	6.2%	71.30 [40.44, 102.16]	
Chen Wu Chen	189	207.4	113	84	66.3	161	5.7%	105.00 [65.41, 144.59]	
Ciceri Castagna Rovere-Querini	165	297	69	108.1	127.68	206	3.9%	56.90 [-15.31, 129.11]	
Fu Fei Xiang	180.5	242.47	34	79.5	70	166	3.4%	101.00 [18.81, 183.19]	
Giacomelli Ridolfo Milazzo	251	211.33	48	93	91.26	185	4.4%	158.00 [96.79, 219.21]	
Goicoechea Camara Macias	57	36.8	11	85	69	25	6.0%	-28.00 [-62.71, 6.71]	—
Li Long Luo	116	524.98	65	58.45	123.65	96	1.9%	57.55 [-72.45, 187.55]	—
Qi Liu FallowField	63	293.65	5	91	61.364	16	0.6%	-28.00 [-287.14, 231.14]	—
Ruan Yang Wang	319.4	838.5	68	231.7	862.3	82	0.5%	87.70 [-185.34, 360.74]	—
Wang Lu Li	168	215.56	133	81	74.1	211	5.8%	87.00 [49.03, 124.97]	
Wang Sheng Tu	199	272.27	21	101	100.67	113	2.2%	98.00 [-19.92, 215.92]	
Xu Fan Wang	137	62.22	28	82.21	105.27	159	6.3%	54.79 [26.53, 83.05]	
Yan Yang Wang	207	177	39	76.5	46.8	9	4.3%	130.50 [67.09, 193.91]	
Yin Zhou Zhang	142	179.9	52	103.5	88.5	30	4.6%	38.50 [-19.76, 96.76]	
Zhang Ding Cao	125.5	73.6	18	53	42.96	117	6.0%	72.50 [37.62, 107.38]	
Zhang Guo Duan (cohort 1)	178.5	300.489	28	75	69.6	125	2.3%	103.50 [-8.47, 215.47]	
Zhang Guo Duan (training cohort)	139.5	174.07	74	71	66.85	328	5.6%	68.50 [28.19, 108.81]	
Zhang Li Zhang	208	217.3	24	65	44.07	142	3.2%	143.00 [55.76, 230.24]	
Zhang Sun Chen	106	135.2	46	74	58.52	273	5.7%	32.00 [-7.68, 71.68]	
Zhang Yang Li	104.5	183.8	17	83	73.46	31	3.0%	21.50 [-69.62, 112.62]	—
Zhang Zhao Wu	94	74.074	86	91	88.15	176	6.7%	3.00 [-17.36, 23.36]	
Zhou Yu Du	39	97.41	54	18	29.33	137	6.4%	21.00 [-5.44, 47.44]	
Zhu Zhao Lai	74	107.4	17	77.1	68.9	308	5.0%	-3.10 [-54.73, 48.53]	—
<b>Total (95% CI)</b>			<b>1204</b>			<b>4013</b>	<b>100.0%</b>	<b>60.62 [39.73, 81.50]</b>	

Heterogeneity: Tau<sup>2</sup> = 1586.73; Chi<sup>2</sup> = 91.68, df = 23 (P < 0.00001); I<sup>2</sup> = 75%

Test for overall effect: Z = 5.69 (P &lt; 0.00001)

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## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



## 1.71 Lactate Dehydrogenase (LDH) and Mortality Means [U/L]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI	Mean IV, Rai
	Mean [U/L]	SD [U/L]	Total	Mean [U/L]	SD [U/L]	Total			
Benelli Buscarini Canetta	789	1,710	72	402.25	839.3	339	0.6%	386.75 [-18.21, 791.71]	-
Bolondi Russo Gamberini	425.5	132.97	4	476	159.48	9	1.9%	-50.50 [-217.34, 116.34]	-
Caraballo McCullough Fuery	373	113.12	34	298	122.96	172	3.1%	75.00 [32.77, 117.23]	-
Chen Sun Sun	292	194.8	82	185.5	64.4	578	3.1%	106.50 [64.01, 148.99]	-
Chen Wu Chen	564.5	210.96	113	268	75.7	161	3.1%	296.50 [255.88, 337.12]	-
Ciceri Castagna Rovere-Querini	521	220	65	373.56	115.9	243	3.0%	147.44 [92.01, 202.87]	-
Covino DeMatteis Santoro	511	321.3	23	305	125.9	46	2.2%	206.00 [69.74, 342.26]	-
De Smet Mellaerts Vandewinkele	390	134.4	19	286	102.2	62	2.9%	104.00 [38.43, 169.57]	-
Fu Fei Xiang	495	258.4	34	245	122.96	166	2.7%	250.00 [161.15, 338.85]	-
Giacomelli Ridolfo Milazzo	438	249.63	48	305	117	185	2.9%	133.00 [60.40, 205.60]	-
Goicoechea Camara Macias	274	32	11	225	59	25	3.2%	49.00 [19.13, 78.87]	-
Gozalbo-Rivera Jiminez Latorre	553	28.28	2	699.7	269.76	11	1.9%	-146.70 [-310.86, 17.46]	-
Gribaldi Fiksel Muschelli	469	229.63	113	327.852	173.3	729	3.1%	141.15 [96.98, 185.32]	-
Grifoni Valoriani Cei	783.17	629.43	6	429.45	239.05	71	0.4%	353.72 [-152.98, 860.42]	-
He Chen Chen	175	46	10	261	58.78	21	3.1%	-86.00 [-124.01, -47.99]	-
Hu Gan Li	503	265.52	39	305.4	100.6	56	2.7%	197.60 [110.20, 285.00]	-
Hu Liu Jiang	480.5	134.81	68	264.5	95.56	115	3.1%	216.00 [179.51, 252.49]	-
Li Chen Chen	569	229	15	272	131.85	87	2.4%	297.00 [177.85, 416.15]	-
Li Li Zheng	337.5	223.7	17	258	122.2	42	2.5%	79.50 [-33.08, 192.08]	-
Li Long Luo	471.6	415.91	65	172.3	111.99	96	2.6%	299.30 [195.74, 402.86]	-
Pascual-Gomez Lobo Cremades	279	98.88	33	247.1	99.15	130	3.1%	31.90 [-5.90, 69.70]	-
Qi Liu FallowField	409	313.5	5	289	83.3	16	1.1%	120.00 [-157.80, 397.80]	-
Ruan Yang Wang	905.8	2,619.1	68	297.9	110.4	82	0.3%	607.90 [-15.07, 1230.87]	-
Shahriarirad Khodamoradi Erfani	1,116.5	1,059.95	9	628.86	431.66	104	0.2%	487.64 [-209.80, 1185.08]	-
Shang Du Lu	368	231.11	51	234.02	65.236	365	2.9%	133.98 [70.20, 197.76]	-
Sun Wang Liu	613	262.96	57	373.5	142.49	12	2.5%	239.50 [133.86, 345.14]	-
Wang Li Li	399.9	198.786	15	299.5	100.4	101	2.6%	100.40 [-2.09, 202.89]	-
Wang Lu Li	525	190.37	133	271	105.185	211	3.1%	254.00 [218.67, 289.33]	-
Wang Sheng Tu	337	256.2	21	220	79.26	113	2.5%	117.00 [6.45, 227.55]	-
Wang VanOekelen Mouhieddine	739	32	7	478	329	16	1.9%	261.00 [98.06, 423.94]	-
Wu Chen Cai	484	162.556	44	349.5	91.62	40	3.0%	134.50 [78.70, 190.30]	-
Yan Yang Wang	501	288.15	39	237	85.5	9	2.5%	264.00 [157.70, 370.30]	-
Zhang Ding Cao	603.7	408.54	18	229.7385	54.4	117	1.7%	373.96 [184.97, 562.95]	-
Zhang Guo Duan (cohort 1)	524	183.6	30	242	108.15	156	2.9%	282.00 [214.14, 349.86]	-
Zhang Guo Duan (training cohort)	556	238.15	96	260	96.3	420	3.1%	296.00 [247.48, 344.52]	-
Zhang Li Zhang	458	268	24	270	83.3	142	2.5%	188.00 [79.91, 296.09]	-
Zhang Sun Chen	336	177	46	176	69.63	273	3.0%	160.00 [108.19, 211.81]	-
Zhang Yang Li	302	617.2	17	291	146.9	31	1.0%	11.00 [-286.92, 308.92]	-
Zhang Zhao Wu	484	174.1	86	291	91.1	176	3.1%	193.00 [153.82, 232.18]	-
Zhou Yu Du	521	226.67	54	253.5	73.3	137	3.0%	267.50 [205.81, 329.19]	-
Zhu Zhao Lai	275	69.6	17	173	68.9	308	3.1%	102.00 [68.03, 135.97]	-
<b>Total (95% CI)</b>			<b>1710</b>			<b>6173</b>	<b>100.0%</b>	<b>164.89 [128.87, 200.90]</b>	

Heterogeneity: Tau<sup>2</sup> = 10420.53; Chi<sup>2</sup> = 480.23, df = 40 (P < 0.00001); I<sup>2</sup> = 92%

Test for overall effect: Z = 8.97 (P &lt; 0.00001)

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## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

## 1.72 Procalcitonin and Mortality Means [ng/mL]

Study or Subgroup	Died			Survived			Weight	Mean Difference IV, Random, 95% CI
	Mean [ng/mL]	SD [ng/mL]	Total	Mean [ng/mL]	SD [ng/mL]	Total		
Brill Jarvis Ozcan	0.37	0.874	173	0.2	0.244	237	4.3%	0.17 [0.04, 0.30]
Caraballo McCullough Fuery	0.37	0.7266	34	0.16	0.244	172	3.2%	0.21 [-0.04, 0.46]
Chen Sun Sun	0.2	0.296	82	0.1	0.074	578	4.8%	0.10 [0.04, 0.16]
Chen Wu Chen	0.33	0.378	113	0.05	0.037	161	4.7%	0.28 [0.21, 0.35]
Ciceri Castagna Rovere-Querini	1.18	2.63	56	0.49	0.47	189	1.0%	0.69 [-0.00, 1.38]
Covino DeMatteis Santoro	0.29	0.326	41	0.06	0.133	60	4.5%	0.23 [0.12, 0.34]
Du Liang Yang	0.1	0.3	21	0.1	0.15	158	4.3%	0.00 [-0.13, 0.13]
Goicoechea Camara Macias	0.52	0.575	11	0.4	0.1625	25	2.4%	0.12 [-0.23, 0.47]
Gribaldi Fiksel Muschelli	0.56	1.41	113	0.165	0.333	729	3.1%	0.40 [0.13, 0.66]
He Chen Chen	5.455	4.93	10	0.13	0.17	21	0.1%	5.33 [2.27, 8.38]
Hu Gan Li	1.3	0.37	39	0.2	0.07	56	4.4%	1.10 [0.98, 1.22]
Li Chen Chen	0.19	0.364	15	0.05	0.052	87	3.8%	0.14 [-0.04, 0.32]
Li Li Zheng	0.26	0.356	17	0.17	0.2	42	3.8%	0.09 [-0.09, 0.27]
Lu Chen Fan	0.36	0.3	31	0.09	0.09	92	4.5%	0.27 [0.16, 0.38]
Lu Lv Wu	0.1	0.09	26	0.07	0.089	95	4.9%	0.03 [-0.01, 0.07]
Luo Xia Yang	0.199	0.617	100	0.044	0.0326	303	4.4%	0.16 [0.03, 0.28]
Pascual-Gomez Lobo Cremades	1.01	3.39	33	0.42	1.42	130	0.4%	0.59 [-0.59, 1.77]
Qi Liu FallowField	0.1	0.9	5	0.04	0.068	16	0.8%	0.06 [-0.73, 0.85]
Wang Lu Li	0.21	0.422	133	0.04	0.044	211	4.7%	0.17 [0.10, 0.24]
Wang VanOekelen Mouhieddine	2.7	9.9	7	0.5	0.8	16	0.0%	2.20 [-5.14, 9.54]
Xu Fan Wang	0.17	0.304	28	0.04057	0.069	159	4.4%	0.13 [0.02, 0.24]
Yan Yang Wang	0.38	0.78	39	0.05	0.039	9	3.2%	0.33 [0.08, 0.58]
Yang Sheng Huang	0.22	1.8	40	0.06	0.06	165	1.3%	0.16 [-0.40, 0.72]
Zhang Guo Duan (cohort 1)	0.21	0.234	17	0.06	0.037	128	4.5%	0.15 [0.04, 0.26]
Zhang Guo Duan (training cohort)	0.3	0.267	54	0.09	0.0815	420	4.7%	0.21 [0.14, 0.28]
Zhang Hu Luo	1.89	5.5	9	0.17	0.76	23	0.0%	1.72 [-1.89, 5.33]
Zhang Li Zhang	0.22	0.56	24	0.05	0.052	142	3.4%	0.17 [-0.05, 0.39]
Zhang Sun Chen	0.28	0.448	46	0.05	0.022	273	4.3%	0.23 [0.10, 0.36]
Zhang Zhao Wu	0.12	0.156	86	0.02	0.037	176	4.9%	0.10 [0.07, 0.13]
Zhou Yu Du	0.1	0.296	54	0.1	0.08	137	4.7%	0.00 [-0.08, 0.08]
Zhu Zhao Lai	0.3	2.04	17	0.05	0.037	308	0.5%	0.25 [-0.72, 1.22]
<b>Total (95% CI)</b>			<b>1474</b>			<b>5318</b>	<b>100.0%</b>	<b>0.21 [0.14, 0.29]</b>

Heterogeneity: Tau<sup>2</sup> = 0.03; Chi<sup>2</sup> = 362.08, df = 30 (P < 0.00001); I<sup>2</sup> = 92%

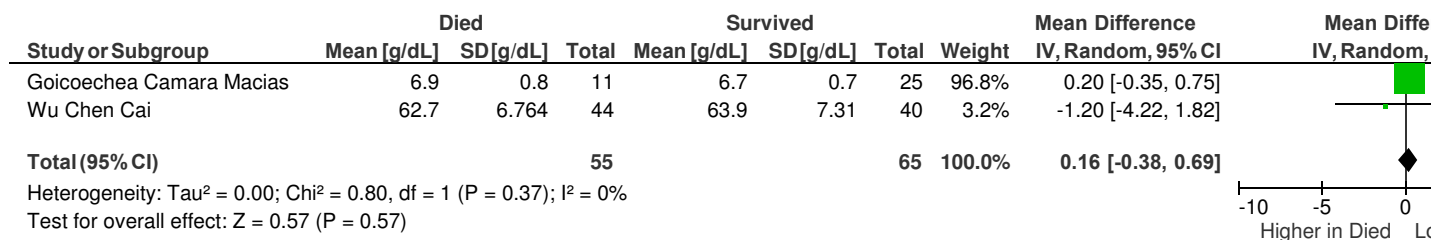
Test for overall effect: Z = 5.56 (P &lt; 0.00001)

Low

## Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

1.73 Total Protein and Mortality Means [g/dL]



Risk of bias legend

- (A) Random sequence generation (selection bias)
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