

Supplemental Table 1 The optimal cut-off values based on in-hospital mortality

Peripheral blood index	Cut-off value	AUC	<i>P</i>
WBC (10 ⁹ /L)	12	0.575	<0.001
Lymphocyte (10 ⁹ /L)	1.17	0.593	<0.001
Neutrophil (10 ⁹ /L)	9.57	0.576	<0.001
Platelet (10 ⁹ /L)	128	0.554	<0.001
NLR	6	0.609	<0.001
PLR	267	0.536	<0.001

WBC, white blood cell; NLR, neutrophil-to-lymphocyte ratio; PLR, platelet-to-lymphocyte ratio.

Supplemental Table 2 Baseline characteristics according to NLR level

	NLR			<i>P</i>
	≤1 (n=580)	(1, 6] (n=10691)	> 6 (n=10,551)	
Age, years	61.76 (48.02, 74.42)	64.99 (51.37, 78.06)	68.75 (54.56, 80.96)	<0.001
Female, n (%)	282 (48.62%)	4807 (44.96%)	5051 (47.87%)	<0.001
Ethnicity, n (%)				<0.001
White	354 (61.03%)	7595 (71.04%)	7929 (75.12%)	
Black	115 (19.83%)	1250 (11.69%)	1846 (17.27)	
Other	111 (19.14%)	1846 (17.27%)	1910 (18.10)	
ICU type				
CCU	74 (12.76%)	1712 (16.01%)	1545 (14.64%)	0.005
CSRU	46 (7.93%)	1812 (16.95%)	585 (5.54%)	<0.001
MICU	350 (60.34%)	4,635 (43.35%)	5,426 (51.43%)	<0.001
SICU	73 (12.59%)	1,767 (16.53 %)	1,935 (18.34%)	<0.001
TSICU	37 (6.38%)	765 (7.16 %)	1,060(10.05%)	<0.001
SAPS II	43 (31, 61)	37 (28, 50)	43 (32, 58.75)	<0.001
Peripheral blood index				
WBC (10 ⁹ /L)	6.4 (3.1, 11.9)	8 (6.1, 10.4)	12.8 (9.6, 17.1)	<0.001
Lymphocyte (10 ⁹ /L)	2.96 (1.31, 4.93)	1.76 (1.31, 2.32)	0.91 (0.61, 1.25)	<0.001
Neutrophil (10 ⁹ /L)	1.99 (0.48, 3.40)	5.44 (3.96, 7.41)	10.99 (8.06, 14.83)	<0.001
Platelet (10 ⁹ /L)	148.5 (67, 219.25)	202 (147, 266)	217 (159, 288)	<0.001

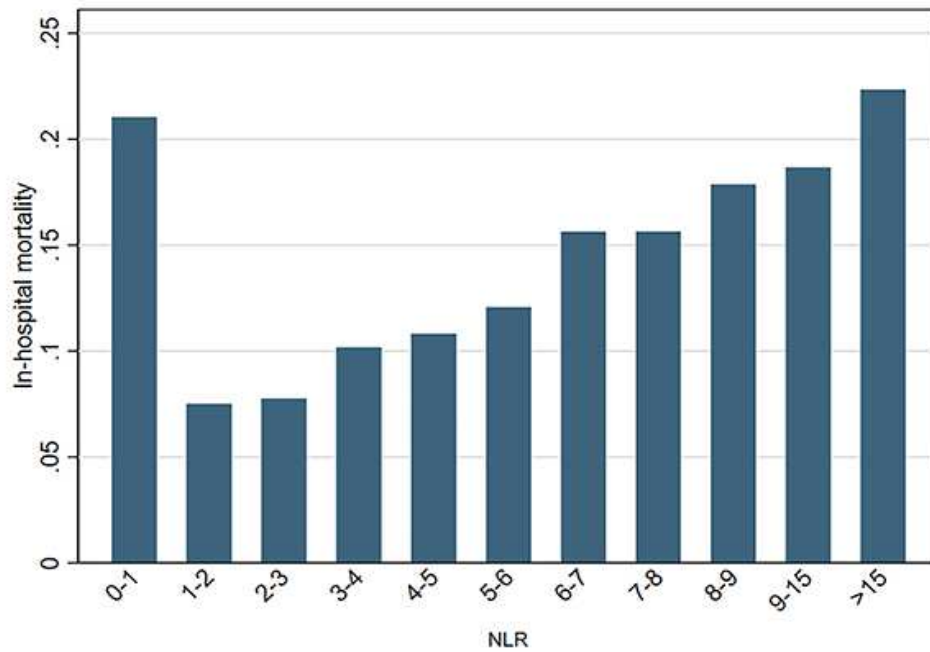
NLR, neutrophil-to-lymphocyte ratio; ICU, intensive care unit; CCU, coronary care unit; CSRU, cardiac surgery recovery units; MICU, medical ICU; SICU, surgical ICU; TSICU trauma surgical ICU; SAPS, Simplified Acute Physiology Score; WBC, white blood cell.

Supplemental Table 3 Subgroup analyses of the association between In-hospital mortality and NLR levels.

Subgroups		NLR		
		≤ 1	(1, 6]	>6
ARDS	n (%)	46 (1.88)	1,812 (74.17)	585 (23.95)
	OR (95%CI)	1.85 (1.24, 2.76)	1	1.27 (1.09, 1.49)
	<i>P</i>	0.003		0.002
CHD	n (%)	37 (1.99)	765 (41.08)	1,060 (56.93)
	OR (95%CI)	2.13 (1.12, 4.02)	1	1.90 (1.54, 2.33)
	<i>P</i>	0.021		<0.001
CKD	n (%)	37 (1.99)	765 (41.08)	1,060 (56.93)
	OR (95%CI)	3.62 (1.67, 7.86)	1	1.78 (1.33, 2.39)
	<i>P</i>	0.001		<0.001
CLD	n (%)	37 (1.99)	765 (41.08)	1,060 (56.93)
	OR (95%CI)	1.75 (0.16, 19.43)	1	2.57 (1.12, 5.89)
	<i>P</i>	0.648		0.025

Confounders adjustment were performed as before (Table 3).

ARDS acute respiratory distress syndrome, CHD coronary heart disease, CKD chronic kidney disease, CLD chronic liver disease.



Supplemental Figure 1: Association of in-hospital mortality rates and different NLR levels.