

Supplementary Material

Supplemental Table 1. Diagnostic criteria for complications.

Complications	Diagnostic criteria
Acute kidney injury	We used the pROCK criterion, which defines acute kidney injury as an increase in creatinine levels of $\geq 20 \mu\text{mol/L}$ and $\geq 30\%$ within 7 days.
Anemia	1-4 months $< 90 \text{ g/L}$; 4-6 months $< 100 \text{ g/L}$; 6-60months $< 110 \text{ g/L}$; 60-144months $< 115 \text{ g/L}$; > 144 months $< 120 \text{ g/L}$.
Hypertension	Systolic pressure $> 120 \text{ mmHg}$; diastolic pressure $> 80 \text{ mmHg}$.
Sepsis	children with suspected or confirmed infections within 48 hours of PICU admission presenting with systemic inflammatory response syndrome.

Supplemental Table 2.1. The multivariate logistic regression model of model 4 associated with hospital mortality using a stepwise backward elimination method.

Variables	Odds ratio (95% CI)	P-value
Age		
<12 months	Ref.	
≥12 months and <60 months	0.72 (0.52-0.99)	0.043
≥60 months and <120 months	0.62 (0.40-0.97)	0.035
≥120 months	0.64 (0.37-1.11)	0.112
Sex (female)	0.71 (0.54-0.94)	0.018
ICU type		
CICU	Ref.	
PICU	4.65 (3.16-6.83)	<0.001
SICU	1.61 (1.01-2.57)	0.044
WBC (<4 or >10, 10⁹/L)	1.30 (0.98-1.74)	0.073
Platelet (<100, 10⁹/L)	1.01 (0.67-1.54)	0.957
ALT (>80, U/L)	2.23 (1.62-3.08)	<0.001
Albumin (<35, g/L)	1.19 (0.88-1.62)	0.268
Creatinine (>88, μmol/L)	1.05 (0.61-1.82)	0.853
Arterial PH (<7.35 or >7.45)	1.08 (0.81-1.45)	0.598
Bicarbonate (<22 or >27, mmol/L)	1.46 (1.06-1.99)	0.019
Lactate (≥2, mmol/L)	2.34 (1.72-3.18)	<0.001
Anion gap (<8 or >16, mmol/L)	1.04 (0.78-1.38)	0.802
APTT (>45, s)	1.84 (1.35-2.51)	<0.001
Anemia	0.76 (0.57-1.01)	0.062
Hypertension	0.76 (0.53-1.10)	0.148
Acute kidney injury	1.57 (1.16-2.13)	0.004
Sepsis	1.21 (0.82-1.77)	0.334

Malignancy	1.49 (0.73-3.07)		0.276
Osmotic pressure			
<285 mmol/L	1.28 (0.84-1.94)		0.249
285-295 mmol/L		Ref.	
>295 mmol/L	1.90 (1.38-2.64)		<0.001

ALT, Alanine aminotransferase; APTT, activated partial thromboplastin time; CI, confidence interval; CICU, cardiac intensive care unit; PICU, pediatric intensive care unit; SICU, surgery intensive care unit; WBC white blood cell.

Supplemental Table 2.2. The multivariate logistic regression model of model 4 associated with 30-day mortality using a stepwise backward elimination method.

Variables	Odds ratio (95% CI)	P-value
Age		
<12 months	Ref.	
≥12 months and <60 months	0.74 (0.52-1.04)	0.081
≥60 months and <120 months	0.59 (0.37-0.96)	0.032
≥120 months	0.77 (0.44-1.33)	0.343
Sex (female)	0.71 (0.52-0.95)	0.022
ICU type		
CICU	Ref.	
PICU	5.02 (3.30-7.62)	<0.001
SICU	1.57 (0.94-2.63)	0.083
WBC (<4 or >10, 10⁹/L)	1.36 (1.00-1.85)	0.049
Platelet (<100, 10⁹/L)	1.04 (0.68-1.61)	0.851
ALT (>80, U/L)	2.37 (1.70-3.31)	<0.001
Albumin (<35, g/L)	1.26 (0.91-1.73)	0.162
Creatinine (>88, μmol/L)	1.18 (0.68-2.03)	0.561
Arterial PH (<7.35 or >7.45)	1.06 (0.78-1.45)	0.711
Bicarbonate (<22 or >27, mmol/L)	1.55 (1.11-2.17)	0.010
Lactate (≥2, mmol/L)	2.53 (1.82-3.52)	<0.001
Anion gap (<8 or >16, mmol/L)	1.03 (0.76-1.40)	0.847
APTT (>45, s)	1.89 (1.38-2.59)	<0.001
Anemia	0.85 (0.63-1.16)	0.314
Hypertension	0.77 (0.53-1.13)	0.185
Acute kidney injury	1.70 (1.24-2.34)	0.001
Sepsis	1.30 (0.89-1.89)	0.177
Malignancy	1.21 (0.54-2.72)	0.644

Osmotic pressure

<285 mmol/L	1.29 (0.82-2.02)	0.270
285-295 mmol/L		Ref.
>295 mmol/L	2.00 (1.41-2.83)	<0.001

ALT, Alanine aminotransferase; APTT, activated partial thromboplastin time; CI, confidence interval; CICU, cardiac intensive care unit; PICU, pediatric intensive care unit; SICU, surgery intensive care unit; WBC white blood cell.