

Table S1 Percentage of missing data in the variables of interest

Variables	MIMIC-III (n=14,449)
Gender, n (%)	
Female	0.00%
Male	0.00%
Age	0.00%
Weight	3.53%
30-day mortality	0.00%
Service unit, n (%)	
MICU	0.00%
SICU/TSICU	0.00%
CCU/CSRU	0.00%
Vital signs	
Heart rate (bpm)	0.26%
MAP (mmHg)	0.26%
Respiratory rate (bpm)	0.36%
Temperature (°C)	2.45%
SpO ₂	0.32%
OASIS score	0.00%
Laboratory tests	
WBC (×10 ⁹ /L)	0.65%
Hemoglobin(g/dL)	0.42%
Platelet (×10 ⁹ /L)	0.53%
PT (seconds)	7.05%
APTT (seconds)	7.28%
Sodium (mmol/L)	0.26%
Potassium (mmol/L)	0.26%
Anion gap (mmol/L)	2.28%
Creatinine (mmol/L)	0.29%
Glucose (mmol/L)	0.00%
Comorbidities, n (%)	
CHF	0.15%
Hypertension	0.00%
COPD	0.15%
Diabetes mellitus	
Liver disease	0.15%
Malignancy	0.15%
Vasopressor use (1st 24 h), n (%)	0.26%
ELF	
RRT use (1st 24 h), n (%)	0.00%
MV use (1st 24 h), n (%)	0.00%

MICU, medical intensive care; SICU, surgical intensive care unit; TSICU, trauma surgical intensive care unit; CCU, coronary care unit; CSRU, cardiac surgery recovery unit; MAP, mean arterial pressure; SpO₂, pulse oxygen saturation; OASIS, Oxford Acute Severity of Illness Score; WBC, white blood cell; PT, prothrombin time; APTT, activated partial thromboplastin time; CHF, congestive heart failure; COPD, chronic obstructive pulmonary disease; ELF, extracorporeal life support; RRT, renal replacement therapy; MV, mechanical ventilation.

Table S2 Relationship between blood glucose and 30-day mortality.

Exposure	Non-adjusted		Adjust I		Adjust II		Adjust III	
	HR (95% CI)	P value	HR (95% CI)	P value	HR (95% CI)	P value	HR (95% CI)	P value
Glucose (mmol/L)	1.09 (1.08-1.11)	<0.001	1.04 (1.01-1.07)	0.004	1.02 (0.99-1.05)	0.199	1.01 (0.99-1.04)	0.303
Glucose quintiles								
Q1	Reference		Reference		Reference		Reference	
Q2	0.70 (0.62-0.79)	<0.001	0.70 (0.61-0.79)	<0.001	0.81 (0.71-0.92)	0.001	0.90 (0.79-1.02)	0.099
Q3	1.04 (0.93-1.17)	0.471	1.02 (0.92-1.15)	0.667	1.08 (0.96-1.21)	0.186	1.04 (0.92-1.17)	0.526
Q4	1.60(1.44-1.78)	<0.001	1.60(1.44-1.77)	<0.001	1.58 (1.43-1.76)	<0.001	1.44 (1.29-1.62)	<0.001
P for trend	<0.001		<0.001		<0.001		<0.001	

Q1: ≤ 6.36 mmol/L; Q2: 6.36–7.35 mmol/L; Q3: 7.35–8.89 mmol/L; Q4: ≥ 8.89 mmol/L. Non-adjusted: no variables were adjusted; Adjust I model: adjusted for age and gender; Adjust II model: adjusted for adjusts I + weight, service unit, respiratory rate, SpO₂; Adjust III model: adjusted for adjusts II + OASIS, PT, APTT, anion gap, and diabetes mellitus. SpO₂, pulse oxygen saturation; OASIS, Oxford Acute Severity of Illness Score; PT prothrombin time; APTT, activated partial thromboplastin time. HR, hazard ratio; CI, confidence interval.