

Table S1. The Simplified Mortality Score for the Intensive Care Unit (SMS-ICU)

Variables	Points
Age	
≤39 years	0
40-59 years	5
60-79 years	10
≥79 years	13
Lowest systolic blood pressure (mmHg)	
≤49	6
50-69	5
70-89	3
≥90	0
Acute surgical admission	
No	3
Yes	0
Hematological malignancy or metastatic cancer	
No	0
Yes	7
Use of vasopressors/inotropes	
No	0
Yes	4
Use of respiratory support	
No	0
Yes	5
Use of renal replacement therapy	
No	0
Yes	4
Total score	0-42

$$\text{Risk prediction 90-day mortality risk} = \frac{\exp(-3.388+0.136*\text{SMS-ICU})}{1+\exp(-3.388+0.136*\text{SMS-ICU})}$$

Table S2 Severity Sepsis Score (SSS) components

Variables	Coefficient	Point values
Sepsis origin		
- Emergency department (referent)	0.000	0
- Ward	0.422	10
- ICU	0.457	11
Geographic region		
- North America (referent)	0.000	0
- Europe	0.263	9
- South America	0.826	14
Cardiovascular failure	0.224	8
Lactate > 4 mmol/L	1.249	18
Cardiovascular failure with lactate > 4 mmol/L	-0.594	0
No hypotension (referent)	0.000	0
Unresponsive hypotension	0.385	10
Responsive hypotension	0.271	9
Received \geq 20 mL/kg of crystalloid or equivalent	-0.493	1
Received vasopressors	0.340	9
Site of infections		
- Pneumonia	0.340	9
- Urinary tract	-0.121	5
- Abdominal	0.178	8
- Meningitis	-0.428	2
- Catheter	0.275	9
- Device	0.387	10
- Other infection	0.236	8
Renal failure	0.256	9
Hepatic failure	0.156	8
Hematologic failure	0.385	10
No MV and no respiratory failure (referent)	0.000	0

No MV and respiratory failure	0.198	8
MV with plateau pressure < 30 cmH ₂ O and no respiratory failure	0.817	14
MV with plateau pressure < 30 cmH ₂ O and respiratory failure	0.771	14
MV with plateau pressure ≥ 30 cmH ₂ O independent of respiratory failure	1.099	17
Hyperthermia (>38.3°C)	-0.375	2
Hypothermia (<36°C)	0.322	9
Chill with rigor	-0.399	2
Tachypnea (>20 beats/min)	0.120	7
Leukopenia (Wbc <4,000/uL)	0.254	9
Hyperglycemia (plasma glucose > 120 mg/dL)	-0.188	4
Acutely alter mental status	0.164	8
Constant	-2.416	

MV: mechanical ventilation; Unresponsive hypotension: mean arterial pressure (MAP) < 65 mmHg despite 20 cc/kg fluid challenge; Responsive hypotension: MAP ≥ 65 mmHg after 20 cc/kg fluid challenge; Wbc: white blood cells

$$\text{SSS Logit} = -2.8334 + (\text{SSS} \times 0.0366)$$

$$\text{SSS probability hospital mortality} = \frac{e^{\text{logit}}}{1 + e^{\text{logit}}}$$