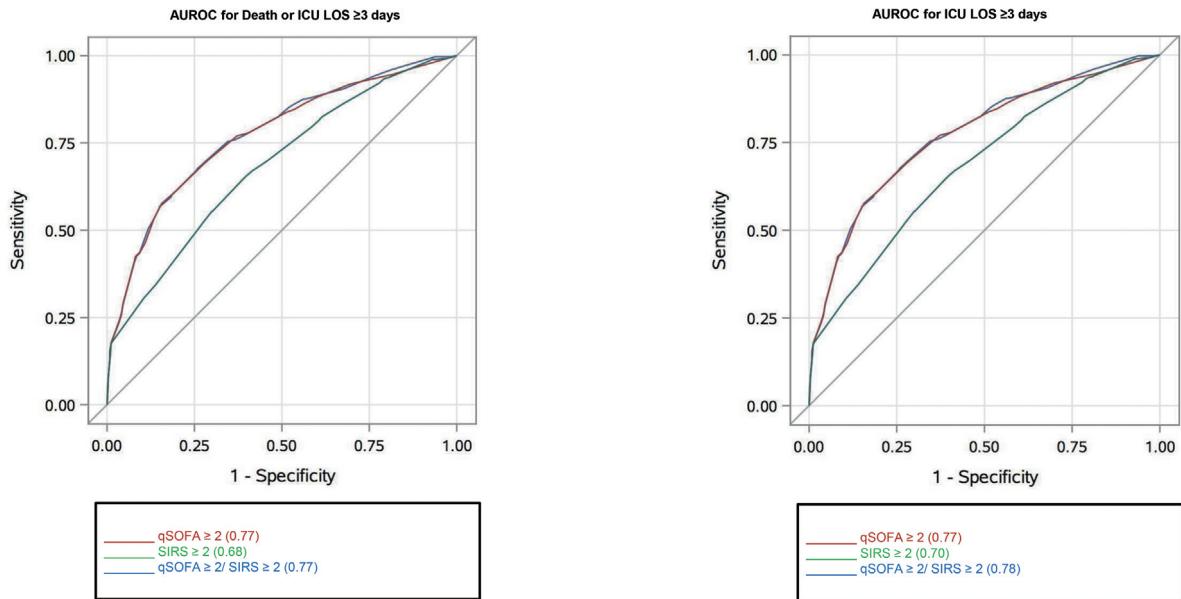


**Figure S1** Flow diagram of study participants. qSOFA, quick Sequential Organ Failure Assessment; SIRS, Systemic Inflammatory Response Syndrome; GCS, Glasgow coma score.



**Figure S2** AUROC for death or ICU LOS  $\geq 3$  days. AUROC, area under the receiver operating characteristic curve; ICU, intensive care unit; LOS, length of stay; qSOFA, quick Sequential Organ Failure Assessment; SIRS, Systemic Inflammatory Response Syndrome.

**Figure S3** AUROC for ICU LOS  $\geq 3$  days. AUROC, area under the receiver operating characteristic curve; ICU, intensive care unit; LOS, length of stay; qSOFA, quick Sequential Organ Failure Assessment; ROC, receiver operating characteristic; SIRS, Systemic Inflammatory Response Syndrome.

**Table S1** Vitals and laboratory results of patients who died meeting qSOFA  $\geq 2$  or SIRS  $\geq 2$  criteria

Variable	qSOFA $\geq 2^{**}$			SIRS $\geq 2^{\wedge}$			P value
	N	Median	25th–75th percentiles	N	Median	25th–75th percentiles	
<b>Vitals</b>							
Temperature (°C)	48	37.0	36.1–38.3	37.0	36.6	35.6–37.5	0.29
Respiratory rate (bpm)	48	25	23–31.5	38	20	20–26	0.002
Heart rate (bpm)	48	118	92.5–144	38	113	91–120	0.06
SBP (mmHg)	48	90.0	73.0–99.0	38	121.5	104.0–137.0	0.001
DBP (mmHg)*	48	49.5	42.0–66.5	38	64.5	53.0–80.0	0.002
Oxygen saturation (%)	47	96	92–99	38	96	94–98	0.76
BMI ( $\text{kg}/\text{m}^2$ )	39	25.5	22.4–34.5	33	24.6	23.8	0.29
APACHE II ( $\text{kg}/\text{m}^2$ )*	48	21	17–25.5	38	15	12–17	0.001
Age (years)	48	62.5	53.5–79.5	38	65.5	50–77	0.74
<b>Laboratory results</b>							
WBC ( $\times 10^9/\text{L}$ )	48	9.6	4.9–16.1	38	12.8	10.2–20.9	0.008
Platelet count ( $\times 10^9/\text{L}$ )*	48	184.5	83.0–259.5	38	249.5	139.0–374.0	0.025
Hematocrit (%)	48	34.0	29.95–38.2	38	32.2	28.8–37.7	0.43
Glucose (mg/dL)*	47	144	105–181	36	115	102–140	0.05
Sodium (mEq/L)	48	136.5	131.5–139.0	38	136.0	132.0–139.0	0.92
Potassium (mEq/L)	48	4.1	3.7–4.8	38	4.4	3.6–4.7	0.84
$\text{HCO}_3$ (mEq/L)*	46	20.5	15.0–25.0	30	24.7	20.0–28.0	0.01
Albumin ( $\mu\text{g}/\text{dL}$ )	29	2.7	2.2–3.2	20	3.1	2.4–3.3	0.41
Creatinine (mg/dL)	48	1.6	1.0–2.7	38	1.5	1.0–2.2	0.51
pH	27	7.3	7.2–7.4	10	7.3	7.2–7.4	0.85
$\text{PaCO}_2$ (mmHg)	27	35.0	29.0–47.0	10	34.9	28.0–62.2	0.88
$\text{PaO}_2$ (mmHg)	26	91.5	70.3–234.0	10	101.7	79.0–130.0	0.89

\*, variables not inherent to qSOFA or SIRS scores; \*\*, includes subjects with qSOFA  $\geq 2$  with or without meeting SIRS  $\geq 2$ ;  $\wedge$ , includes subjects with SIRS  $\geq 2$  only without meeting qSOFA  $\geq 2$  criteria. APACHE II, Acute Physiology and Chronic Health Evaluation II; BMI, body mass index; DBP, diastolic blood pressure;  $\text{HCO}_3$ , bicarbonate;  $\text{PaCO}_2$ , partial pressure of carbon dioxide;  $\text{PaO}_2$ , partial pressure of oxygen; qSOFA, quick Sequential Organ Failure Assessment; SBP, Systolic blood pressure; SIRS, Systemic Inflammatory Response Syndrome; WBC, White blood cells.

**Table S2** Demographic and clinical characteristics of patients who died meeting qSOFA  $\geq 2$  or SIRS  $\geq 2$  criteria

Variable	qSOFA $\geq 2^{**}$ (n=48)		SIRS $\geq 2^{\wedge}$ (n=38)		P value
	N	Row %	N	Row %	
<b>Demographics</b>					
Male gender	29	34	17	20	0.19
Race					1.00
Caucasian	27	33	23	28	
African American	14	17	13	16	
Hispanic ethnicity	5	7	1	1	0.22
<b>Clinical variables</b>					
Tobacco use	10	14	6	8	0.57
Alcohol use*	15	21	2	3	0.002
Systemic steroids*	5	6	12	14	0.03
ACE inhibitor use	9	10	10	12	0.44
Shock	21	24	7	8	0.02
GCS <15	26	30	0	0	0.001
<b>Comorbidities</b>					
Asthma	2	2	0	0	0.50
CHF NYHA Class IV*	1	1	6	7	0.04
Chronic hemodialysis	3	3	4	5	0.69
Cirrhosis	4	5	1	1	0.38
Diabetes mellitus	16	19	9	10	0.35
Metastatic solid cancer	6	7	5	6	1.00
Immunosuppression	10	12	15	17	0.09
COPD	7	8	7	8	0.77

\*, variables not inherent to qSOFA or SIRS scores; \*\*, includes subjects with qSOFA  $\geq 2$  with or without meeting SIRS  $\geq 2$ ;  $\wedge$ , includes subjects with SIRS  $\geq 2$  only without meeting qSOFA  $\geq 2$  criteria. ACE, angiotensin converting enzyme; APACHE II, Acute Physiology and Chronic Health Evaluation II; CHF, congestive heart failure; COPD, chronic obstructive pulmonary disease; GCS, Glasgow coma score; NYHA, New York Heart Association; qSOFA, quick Sequential Organ Failure Assessment; SIRS, Systemic Inflammatory Response Syndrome.

**Table S3** Predictive performance of qSOFA  $\geq 2$  and SIRS  $\geq 2$  for in-hospital outcomes

Outcome	Score	Sensitivity (%)	Specificity (%)	PPV (%)	NPV (%)
Death	qSOFA $\geq 2$	55	80	13	97
	SIRS $\geq 2$	88	19	6	96
Death/ICU LOS $\geq 3$ days	qSOFA $\geq 2$	49	85	48	86
	SIRS $\geq 2$	87	20	23	85
ICU LOS $\geq 3$ days	qSOFA $\geq 2$	48	85	44	87
	SIRS $\geq 2$	88	20	22	87
ICU utilization	qSOFA $\geq 2$	45	87	57	80
	SIRS $\geq 2$	89	21	31	83
Invasive ventilation	qSOFA $\geq 2$	44	82	29	90
	SIRS $\geq 2$	88	20	15	90
Non-invasive ventilation	qSOFA $\geq 2$	35	79	12	94
	SIRS $\geq 2$	92	10	8	94
Vasopressor use	qSOFA $\geq 2$	60	81	22	96
	SIRS $\geq 2$	96	11	9	96
Hemodialysis	qSOFA $\geq 2$	34	79	8	96
	SIRS $\geq 2$	90	19	6	97

PPV, positive predictive value; NPV, negative predictive value; qSOFA, quick Sequential Organ Failure Assessment; SIRS, Systemic Inflammatory Response Syndrome.