

Supplementary Table 1. Scoring systems used in this study

Variables	3	2	1	0	1	2	3	4
qSOFA								
Respiratory rate (breaths per minute)			≥22					
Systolic BP (mm Hg)			≤10	0				
Altered mental status (Glasgow Coma scale)			<15					
SOFA								
PaO ₂ /FiO ₂ (mmHg)				>400	≤400	≤300	≤200	≤100
Platelets (x10 ³ /μl)				>150	≤150	≤100	≤50	≤20
Bilirubin (mg/dl)				<1.2	1.2-1.9	2-5.9	6-11.9	>12
Cardiovascular parameters				MAP≥7 0	MAP<7 0	Dop≤ 5	Dop>5 Epi≤0. 1	Epi>0. 1
Glasgow Coma scale				15	13-14	10-12	6-9	<6
Creatinine (mg/dl;L)				<1.2	1.2-1.9	2-3.4	3.5-4.9	>5
NEWS								
Respiratory rate	≤8		9-11	12-20		21-24	≥25	
SpO ₂ (%)	≤9 1	92- 93	94- 95	≥96				
Supplemental oxygen		Ye s		No				
Temperature (°C)	≤3 5		35.1 -36	36.1-38	38.1-39	≥39.1		
Systolic BP (mmHg)	≤9 0	91- 10	101- 110	111-219			≥220	
Heart rate (beats per minute)	≤4 0		41- 50	51-90	91-110	111- 130	≥131	
Level of consciousness (AVPU)				A			V,P or U	
qNEWS								
Respiratory rate	≤8		9-11	12-20		21-24	≥25	
Systolic BP (mmHg)	≤9 0	91- 10	101- 110	111-219			≥220	
Level of consciousness				A			V,P or U	

Abbreviations: paO₂: partial pressure of oxygen; SpO₂: peripheral pulse oximetry; MAP: mean arterial pressure; Dop: dopamine; Epi: epinephrine; A: alert; V: responds to voice; P: responds to pain; U: unresponsive; qSOFA: Quick Sequential Organ Failure Assessment; SOFA: Sequential Organ Failure Assessment; NEWS: National Early Warning Score, qNEWS: quick National Early Warning Score.

Supplementary Table 2. Demographic and clinical characteristics of the study population (n=237)

Variable	
Baseline characteristics	
Age in years, median (IQR)	65.9 (49.7-79.2)
Male sex, n (%)	143 (60.3%)
Charlson Comorbidity Index score, median (IQR)	3 (1-5)
Race/Ethnicity, n (%)	
Caucasian	163 (68.8%)
Hispanic	48 (20.3%)
Days from the onset of symptoms to positive PCR, median (IQR)*	5 (3-7)
Clinical findings at admission	
Temperature (°C), n (%)	37.92±1.008
Systolic blood pressure (mmHg), median (IQR)	126 (116-140)
Respiratory rate (breaths per minute), median (IQR)	17 (14-21)
Heart rate (beats per minute), median (IQR)	91 (80-103)
Dyspnea, n (%)	125 (52.7%)
Altered mental status, n (%)	16 (6.8%)
Laboratory and radiologic findings at admission	
PaO ₂ (mm Hg), median (IQR)	69 (55-96)
SpO ₂ (%), median (IQR)	95 (91-97)
PAFI, median (IQR)	375 (270-450)
Total bilirubin (mg/dl), median (IQR)	0.4 (0.3-0.6)
Creatinine (mg/dl), median (IQR)	0.87 (0.7-1.12)
Platelets (x10 ³ /μl), median (IQR)	183 (144-239.5)
Abnormalities on chest radiograph, n (%)	189 (79.7%)
Scores at admission	
SOFA, median (IQR)	1 (0-2)
SOFA≥2, n (%)	105 (44.3%)
qSOFA, median (IQR)	0 (0-1)
qSOFA≥1, n (%)	72 (30.4%)
NEWS, median (IQR)	3 (1-5)
NEWS≥4, n (%)	100 (42.2%)
qNEWS, median (IQR)	0 (0-2)
qNEWS≥2, n (%)	88 (37.1%)
Complications and outcome	
Oxygen therapy, n (%)	167 (70.5%)
Days from positive PCR to oxygen therapy, median (IQR)	0 (0-1)
ICU admission, n (%)	29 (12.2%)
Days from positive PCR to ICU admission, median (IQR)	1 (1-5)
Respiratory failure, n (%)	77 (32.5%)
Days from positive PCR to respiratory failure, median (IQR)	3 (1-5.7)
In-hospital mortality, n (%)	49 (20.7%)
Days from positive PCR to in-hospital mortality, median (IQR)	9 (7-12)

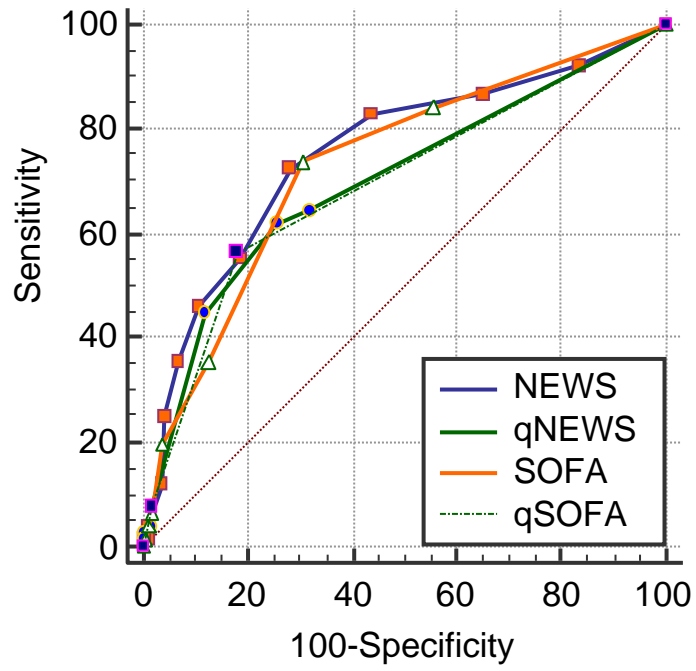
Data are presented as mean ± standard deviation or median with interquartile range (IQR) or as an absolute value (percentage). ^a: RT-PCR: first positive SARS-CoV-2 real time reverse transcription polymerase chain reaction. ^b: only available in 120 cases. In case the pO₂ value was not available, SAFI (SpO₂/FiO₂) was calculated instead of PAFI. Abbreviations: paO₂: partial pressure of oxygen; SpO₂: peripheral pulse oximetry; PAFI: PaO₂/FiO₂ score; ICU: Intensive Care Unit, qSOFA: Quick Sequential

Organ Failure Assessment; SOFA: Sequential Organ Failure Assessment; NEWS: National Early Warning Score, qNEWS: quick National Early Warning Score.

Supplementary Table 3. Pairwise comparison of ROC curves

	Respiratory failure			In-hospital mortality		
	Difference between areas	95% Confidence Interval	<i>p</i> -value	Difference between areas	95% Confidence Interval	<i>p</i> -value
SOFA vs. qSOFA	0.038	-0.045 to 0.121	0.36	0.056	-0.027 to 0.139	0.19
SOFA vs. qNEWS	0.032	-0.056 to 0.121	0.47	0.094	0.009 to 0.179	0.03
SOFA vs. NEWS	0.020	-0.056 to 0.096	0.60	0.049	-0.025 to 0.124	0.19
qSOFA vs. qNEWS	0.005	-0.064 to 0.076	0.87	0.038	-0.022 to 0.099	0.21
qSOFA vs. NEWS	0.058	-0.009 to 0.126	0.09	0.006	-0.064 to 0.077	0.85
qNEWS vs. NEWS	0.052	-0.017 to 0.123	0.14	0.045	-0.024 to 0.115	0.21

Supplementary Figure 1. Receiver operating characteristic (ROC) curve of different scores in discriminating the presence of respiratory failure.



Supplementary Figure 2. Receiver operating characteristic (ROC) curve of different scores in discriminating the presence of in-hospital mortality.

