

Table 1a. Modified Early Warning Score (MEWS)

	3	2	1	0	1	2	3
Systolic Blood Pressure mmHg	<70	71-80	81-100	101-199		>199	
Heart rate/min		<40	41-50	51-100	101-110	11-129	>129
Respiratory rate/min		<9		9-14	15-20	21-29	>29
Temperature °C		<35		35-38,4		>38,4	
AVPU score				A	V	P	U

A: Alert, V: responds to voice, P: responds to pain, U: unresponsive

Table 1b. National Early Warning Score (NEWS)

	3	2	1	0	1	2	3
Respiratory rate /min	<8		9-11	12-20		21-24	>25
SpO ₂ %	91	92-93	94-95	>96			
Supplementary O ₂		Yes		No			
Temperature °C	<35.5		35.1-36	36.1-38	38.1-39	>39.1	
Systolic Blood Pressure mmHg	<90	91-100	101-110	111-219			>220
Heart rate /min	<40		41-50	51-90	91-110	111-130	>131
Level of consciousness				A			V, P, U

Table 1c. qSOFA

Parameters	Score
Altered mental status (GCS <15)	1
Respiratory rate >22/min	1
Systolic Blood Pressure <100 mmHg	1

Table 2. Vital parameters and total scores of Alive and Death groups

Parameters	Status		p
	ALIVE	DEATH	
Age	54.3±15.1	64.4±13.2	0.003*
SBP (mmHg)	120.0(90.0-183.0)	127.0(75.0-165.0)	0.474
DBP (mmHg)	80.0(53.0-119.0)	75.0(53.0-89.0)	0.063
Temperature (°C)	36.8(35.8-39.5)	37.0(36.0-38.7)	0.072
SpO ₂ %	97.0(82.0-100.0)	91.0(65.0-98.0)	<0.001
Heart rate bpm	84.2±12.4	101.0±13.3	<0.001*
RR bpm	16.0(12.0-48.0)	28.0(12.0-44.0)	<0.001
Stay of hospital (day)	7.0(1.0-60.0)	13.0(2.0-53.0)	0.005
MEWS	1.0(0.0-7.0)	4.0(0.0-7.0)	<0.001
NEWS	1.0(0.0-13.0)	10.0(0.0-16.0)	<0.001
qSOFA	0.0(0.0-2.0)	1.0(0.0-3.0)	<0.001

Results were presented as mean ± standard deviation or median (minimum-maximum).

*Independent samples t test was performed, otherwise Mann Whitney U test was used.

SBP: Systolic Blood Pressure, DBP: Diastolic Blood Pressure, RR: Respiratory rate

Table 3. Comparison of symptoms and comorbidities for alive and death group

All patients n (%)	Alive 189(89.2%)	Death 23(10.8%)	Total 212(100%)
	n (%)	n (%)	
Sex			p value
female	92 (48.6%)	6 (26.0%)	0.040
male	97 (51.4%)	17 (74.0%)	
Comorbidities			
HT	63(33.3%)	8(34.7%)	0.889
DM	39(20.6%)	5(21.7%)	0.999*
KAD	20(10.5%)	6(26.0%)	0.032*
Hypothyroidy	17(9.0%)	0(0.0%)	0.227*
Malignancy	11(5.8%)	0(0.0%)	0.613*
COPD	10(5.3%)	1(4.3%)	0.999*
Asthma	7(3.7%)	2(8.7%)	0.253*
Heart failure	3(1.6%)	2(8.7%)	0.092*
Gastric bypass surgery	2(1.0%)	0(0.0%)	0.999*

CKD	1(0.5%)	0(0.0%)	0.999*
Epilepsy	1(0.5%)	0(0.0%)	0.999*
Dvt	1(0.5%)	1(4.3%)	0.108*
Af	1(0.5%)	0(0.0%)	0.999*
Vsd	1(0.5%)	0(0.0%)	0.999*
CeVD	1(0.5%)	1(4.3%)	0.206*
ITP	1(0.5%)	0(0.0%)	0.999*
sarcoidosis	1(0.5%)	2(8.7%)	0.032*
Symptoms			
Cough	123(65.1%)	7(30.4%)	0.001
Fever	78(41.2%)	7(30.4%)	0.317
weakness	60(31.7%)	5(21.7%)	0.473*
dyspnea	37(19.5%)	14(60.8%)	<0.001
myalgia	25(13.2%)	3(13.0%)	0.999*
sore throat	21(11.1%)	3(13.0%)	0.731*
headache	15(7.9%)	1(4.3%)	0.999*
diarrhea	11(5.8%)	1(4.3%)	0.999*
Abdominal pain	8(4.2%)	1(4.3%)	0.999*
Results were presented as count and percentage. *Fisher's exact test was performed. Otherwise Chi-square test was used			
CKD: chronic kidney disease, Dvt: deep vein thrombosis, Af: atrial fibrillation, Vsd: ventricular septal defect, DM: diabetes mellitus, HT: hypertension, COPD: chronic obstructive pulmonary disease, CeVD: cerebrovascular disease, KAD: coronary artery disease.			

Table 4. Vital parameters and total scores of non-ICU and ICU patient

Parameters	Status		p
	Non-ICU	ICU	
Age	53.9±15.2	63.4±12.5	0.001*
SBP mmHg	120.0(90.0-180.0)	132.0(75.0-183.0)	0.106
DBP mmHg	80.0(60.0-119.0)	71.5(53.0-90.0)	0.014
Temperature °C	36.8(35.8-39.5)	37.1(36.0-38.8)	0.005
sPO ₂ %	97.0(88.0-100.0)	90.5(65.0-98.0)	<0.001
Heart rate bpm	84.0(50.0-124.0)	96.0(68.0-125.0)	<0.001*
RR bpm	16.0(12.0-30.0)	28.0(12.0-48.0)	<0.001
MEWS	1.0(0.0-5.0)	3.5(0.0-7.0)	<0.001
NEWS	1.0(0.0-10.0)	10.0(0.0-16.0)	<0.001
qSOFA	0.0(0.0-2.0)	1.0(0.0-3.0)	<0.001

Results were presented as mean±standard deviation or median (minimum-maximum).

*Independent samples t test was performed, otherwise Mann Whitney U test was used.

SBP: Systolic Blood Pressure, DBP: Diastolic Blood Pressure, RR: Respiratory rate

Table 5. Comparison of symptoms and comorbidities for non-ICU and ICU groups			
All patients n (%)	Non-ICU 178(84.0%)	ICU 34(16.0%)	Total 212(100%)
	n (%)	n (%)	
Sex			p value
female	87(48.9%)	11(32.3%)	0.077
male	91(51.1%)	23(67.7%)	
Comorbidities			
HT	56(31.5%)	15(44.1%)	0.152
DM	36(20.2%)	8(23.5%)	0.663
KAD	18(10.1%)	8(23.5%)	0.029
Hypothyroidy	16(9.0%)	1(2.9%)	0.320*
COPD	10(5.6%)	1(2.9%)	0.999*
Malignancy	10(5.6%)	1(2.9%)	0.999*
Asthma	7(3.9%)	2(5.9%)	0.639*
Heart failure	3(1.7%)	2(5.9%)	0.183*
Gastric bypass surgery	2(1.1%)	0(0,0%)	0.999*
Af	1(0.6%)	0(0.0%)	0.999*
Vsd	1(0.6%)	0(0.0%)	0.999*
CeVD	1(0.6%)	1(2.9%)	0.296*
ITP	1(0.6%)	0(0,0%)	0.999*
sarcoidosis	1(0.6%)	2(5.9%)	0.068*
CKD	0(0.0%)	1(2.9%)	0.160*
Epilepsy	0(0.0%)	1(2.9%)	0.160*
Dvt	0(0.0%)	1(2.9%)	0.160*
Symptoms			
Cough	113(63.5%)	17(50.0%)	0.139
Fever	71(39.9%)	14(41.2%)	0.888
weakness	54(30.3%)	11(32.3%)	0.815
dyspnea	33(18.5%)	18(52.9%)	<0.001
myalgia	23(12.9%)	5(14.7%)	0.784*
sore throat	20(11.2%)	4(11.8%)	0.999*
headache	14(7.8%)	2(5.9%)	0.999*
diarrhea	10(5.6%)	2(5.9%)	0.999*
Abdominal pain	8(4.5%)	1(2.9%)	0.999*
Results were presented as count and percentage. *Fisher's exact test was performed. Otherwise Chi-square test was used			
CKD: chronic kidney disease, Dvt: deep vein thrombosis, Af: atrial fibrillation, Vsd: ventricular septal defect, DM: diabetes mellitus, HT: hypertension, COPD: chronic			

obstructive pulmonary disease, CeVD: cerebrovascular disease, KAD: coronary artery disease

Table 6. The overall analysis of MEWS, NEWS and qSOFA scores to prediction of mortality and ICU admission according to the subgroups.

		Age	AUC (95% CI)
Mortality	MEWS	<65	0.852(0.708-0.997)
		≥65	0.854(0.720-0.987)
	NEWS	<65	0.882(0.741-1.000)
		≥65	0.931(0.853-1.000)
	qSOFA	<65	0.879(0.768-0.990)
		≥65	0.776(0.609-0.944)
ICU admission	MEWS	<65	0.882(0.783-0.981)
		≥65	0.845(0.725-0.965)
	NEWS	<65	0.914(0.817-1.000)
		≥65	0.926(0.854-0.998)
	qSOFA	<65	0.868(0.764-0.973)
		≥65	0.815(0.676-0.954)

Table 7. The diagnostic accuracy of the MEWS, NEWS and qSOFA for mortality and ICU admission <65 years and > 65 years old patients and optimal cut-off values

		Age	AUC (95% CI)	Cut-off point*	Sensitivity (%)	Specificity (%)
Mortality	MEWS	<65	0.85(0.71-1.0)	≥2	90.9	74.7
		≥65	0.85(0.72-0.99)	≥4	66.7	97.7
	NEWS	<65	0.88(0.74-1.0)	≥7	81.8	93.8
		≥65	0.93(0.85-1.0)	≥6	91.7	76.7
	qSOFA	<65	0.88(0.77-1.0)	≥1	90.9	78.1
		≥65	0.78(0.61-0.94)	≥1	75	69.8
ICU admission	MEWS	<65	0.88(0.78-0.98)	≥2	89.5	78.3

	≥65	0.85(0.73-0.97)	≥4	60	100
NEWS	<65	0.92(0.82-1.0)	≥6	84.2	94.9
	≥65	0.93(0.85-1.0)	≥6	86.7	80
qSOFA	<65	0.87(0.76-0.97)	≥1	84.2	81.2
	≥65	0.82(0.68-0.95)	≥1	80	75