Appendix 1: Scoring system tables

Each table represents the system used to calculate the respective physiological score.

1.1 NEWS2

Table 1: Components of the National Early Warning Score 2 (NEWS2) and its scoring system

Physiological variable	Score						
	3	2	1	0	1	2	3
Respiratory rate (per minute)	≤8		9-11	12-20		21-24	≥25
SpO2 Scale 1 (%)	≤91	92-93	94-95	≥96			
SpO2 Scale 2 (%)	≤83	84-85	86-87	≥93 on air 88-92	93-94 on oxygen	95-96% on oxygen	≥97 on oxygen
Air or Oxygen		Oxygen		Air			
Systolic blood pressure (mmHg)	≤90	91-100	101-110	111-219			≥220
Pulse (per minute)	≤40		41-50	51-90	91-110	111-130	≥131
Consciousness				Alert			CVPU
Temperature (ºC)	≤35.0		35.1-36.0	36.1-38.0	38.1-39.0	≥39.1	

1.2 Sequential Organ Failure Assessment (SOFA)

Table 2: Components of the Sequential Organ Failure Assessment Score

	SOFA Score				
Variable	0	1	2	3	4
Respiratory	PaO_2/FiO_2: >400 SpO_2/FiO_2: >302	PaO_2/FiO_2: <400 SpO_2/FiO_2: <302	PaO_2/FiO_2: <300 SpO_2/FiO_2: <221	PaO_2/FiO_2: <200 SpO_2/FiO_2: <142	PaO_2/FiO_2: <100 SpO_2/FiO_2: <67
Cardiovascular (Doses in mcg/kg/min)	MAP ≥ 70 mmHg	MAP ≥ 70 mmHg	Dopamine ≤ 5 or any dobutamine	Dopamine > 5, Noradrenaline ≤ 0.1, Phenylephrine ≤ 0.8	Dopamine > 15, Noradrenaline > 0.1, Phenylephrine > 0.8
Liver (Bilirubin, mg/dL)	< 1.2	1.2-1.9	2.0-5.9	6.0-11.9	> 12
Renal (Creatinine, mg/dL)	< 1.2	1.2-1.9	2.0-3.4	3.5-4.9	> 5.0
Coagulation (Platelets x $10^3/mm^3$)	≥ 150	< 150	< 100	< 50	< 20
Neurology (Glasgow Coma score)	15	13-14	10-12	6-9	< 6

1.3 Acute physiology and Chronic Health Evaluation II Score

Table 3: Components of the Acute physiology and Chronic Health Evaluation II Score

	Acute physiological variable		High abnormal range					Low abnormal range			
			+4	+3	+2	+1	0	+1	+2	+3	+4
1	Temperature (ºC)		≥ 41	39-40.9		38.5-38.9	36-38.4	34-35.9	32-33.9	30-31.9	≤ 29.9
2	Mean Arterial Pressure (mmHg)		≥ 160	130-159	110-129		70-109		50-69		≤ 49
3	Heart rate		≥ 180	140-179	110-139		70-109		50-69	40-54	≤ 39
4	Respiratory rate		≥ 50	35-49		25-34	12-24	10-11	6-9		≤ 5
5a	Oxygenation (A-a gradient if $FiO_2 \geq 0.5$ or PaO_2 if $FiO_2 \leq 0.5$)	A-a gradient	≥ 500	350-499	200-349		< 200				
5b		PaO_2					>70	61-70		55-60	<54
6a	Arterial pH		≥ 7.7	7.6-7.69		7.5-7.59	7.33-7.49		7.25-7.32	7.15-7.24	<7.15
6b	HCO_3 (mEq/l) (to use instead of pH if only venous sample available)		≥ 52	41-51.9		32-40.9	22-31.9		18-21.9	15-17.9	<15
7	K (mEq/l)		≥ 7	6-6.9		5.5-5.9	3.5-5.4	3-3.4	2.5-2.9		<2.5
8	Na (mEq/l)		≥ 180	160-179	155-159	150-154	130-149		120-129	111-119	≤ 110
9	Serum Creatinine (mqm/dl)		≥ 3.5	2-3.4	1.5-1.9		0.6-1.4		<0.6		
10	Haematocrit (%)		≥ 60		50-59.9	46-49.9	30-45.9		20-29.9		<20
11	White cell count(10^3/cc)		≥ 40		20-39.9	15-19.9	3.0-14.9		1.0-2.9		≤ 1.0
12	Glasgow Coma Score		Points= 15 – calculated Glasgow coma score								

Age points (years):

≤ 44y	0
45-54y	+2
55-64y	+3
65-74y	+5
≥ 75y	+6

Chronic health points:

Non-operative, or emergency post-op with any of the below conditions*	+5
Elective operation with any of the conditions below *	+2

*Cirrhosis with portal hypertension or encephalopathy; class IV heart failure; chronic hypoxia; chronically increased CO_2 or polycythaemia; long term dialysis; immunocompromised; chronic restrictive or vascular disease resulting in severe exercise restriction (i.e. unable to climb stairs)

Total APACHE II Score: Age points + Chronic health points + Acute physiology points