

Feasibility of 48 – Supplementary Material

Appendix 1

Table 1 – Demographic and Physiological data collected

Field
Critical Care Demographics
ICU speciality
Number of (HDU) level 2 beds
Number of (ICU) level 3 beds
Other ICU speciality
Total number of ICU beds
Number of WTE physiotherapists
Patient Demographics
Age
Type of admission
Date of admission to critical care
Source of admission
Length of stay (days) in previous ICU before transfer
Days of mechanical ventilation
Primary diagnosis
Sex
APACHE II
Comorbidities
Weight in Kg
Height in cm
Clinical Frailty Scale.
Respiratory
Airway
Mode of Respiratory Support
Mandatory or back up respiratory rate
PEEP or EPAP
FiO2
O2 flow in l/min (NC, face mask, Swedish Nose, high flow oxygen)
Total respiratory rate
CVS
Cardiac assist device
ECCO2 removal device
ECMO type
Systolic
Diastolic
MAP
HR
Rhythm
Pharmacological CVS Support
Adrenaline
Noradrenaline
Dobutamine

(continued)

Field
Dopamine
ADH (vasopressin)
Enoximone
Isoprenaline
Levosimendan
Phenylephrine
Milrinone
Metaraminol
Neuro
Paralysed with neuromuscular blocking agents
RASS
GCS
Intracranial pressure (ICP) measured?
Intracranial pressure
CAM-ICU
Sedated
Propofol
Midazolam
Ketamine
Dexmedetomidine
Fentanyl (including 'remi' and 'al')
Labs
pH
PaCO2
PaO2
WCC
K+
Hb
CRP
Creatinine
Bilirubin
Platelets
Renal
Is the patient receiving renal replacement therapy
Vascular Catheter Placement
Rehab
Specific movement restrictions
ICU Mobility Scale score achieved today
Time of intervention
Why did this patient not complete active rehabilitation (against gravity) today? Please give your top 3 reasons for not rehabing.
Highest ICU Mobility Scale score achieved during admission
On what day did this patient first participate in active rehabilitation against gravity (ICU Mobility Scale of 3 or more)?
Did you achieve the ICU Mobility Scale outcome that you were anticipating to complete before the session?
Profession of staff making decision to mobilise
Band of staff making decision to mobilise
Number of staff required to mobilise

Table 2 – Reasons for being excluded

Reason for Exclusion	n
Movement restrictions – appropriate mobility level achieved	31
Staffing	30
Awaiting medical procedure	22
Dying	16
Intervention as per site rehabilitation plan	14
Patient declined	12
At baseline level of mobility	8
Medical procedure in progress	8
Movement restrictions-specific	7
Motor block	2
Equipment	1

Table 3 – Summary LOS ≤ 3 days

	Excluded	Mobilised	Not Mobilised	p
n	51	180	140	
Type of admission (%)				<0.001
Elective Surgery	16 (31.4)	109 (60.6)	39 (27.9)	
Emergency Surgery	13 (25.5)	24 (13.3)	30 (21.4)	
Medical	19 (37.3)	44 (24.4)	63 (45.0)	
Other	3 (5.9)	3 (1.7)	8 (5.7)	
Gender = Male (%)	27 (52.9)	110 (61.1)	86 (61.4)	0.530
Renal Replacement Therapy (%)	2 (3.9)	2 (1.1)	18 (12.9)	<0.001
Airway				<0.001
Nasal ETT	0 (0.0)	0 (0.0)	1 (0.7)	
Oral ETT	8 (15.7)	2 (1.1)	78 (55.7)	
Own	40 (78.4)	175 (97.2)	59 (42.1)	
Tracheostomy	3 (5.9)	3 (1.7)	2 (1.4)	
Nova lung (%)	0 (0.0)	0 (0.0)	1 (0.7)	0.515
ecmo_yn = 0 (%)	51 (100.0)	180 (100.0)	140 (100.0)	NA
cardiac_assist_device = None (%)	51 (100.0)	180 (100.0)	136 (97.1)	0.045
FiO2 median [IQR]	0.24 [0.21, 0.38]	0.24 [0.21, 0.33]	0.30 [0.24, 0.40]	<0.001
PF (median [IQR])	44.24 [27.18, 55.23]	40.60 [30.93, 51.11]	36.11 [25.86, 44.90]	0.031
Haemoglobin median [IQR]	96.00 [84.00, 112.00]	106.00 [89.50, 119.00]	98.50 [84.00, 119.00]	0.184
CRP median [IQR]	73.80 [18.88, 187.57]	66.40 [27.50, 167.50]	90.00 [29.90, 192.75]	0.549
WCC median [IQR]	12.12 [8.27, 14.46]	10.90 [8.72, 13.70]	11.75 [8.95, 15.72]	0.139
MAP median [IQR]	83.67 [76.17, 92.50]	85.17 [76.33, 93.67]	79.33 [71.00, 91.42]	0.036
HR median [IQR]	79.00 [68.00, 97.50]	83.00 [70.00, 90.25]	81.50 [69.75, 95.25]	0.967
VIS total Median [IQR]	0.00 [0.00, 0.00]	0.00 [0.00, 0.00]	0.00 [0.00, 8.50]	<0.001
Metaraminol dose median [IQR]	1.39 [0.49, 1.50]	0.70 [0.47, 1.08]	1.07 [0.43, 1.21]	0.620

Table 4: % who mobilise by RAG rating (<=48 hours)

RAG rating	Not Mobilised	Mobilised
Green	11% (15)	89% (125)
Amber	26% (5)	74% (14)
Red	97% (90)	3% (3)

Table 5: % RAG by admission type (<=48 hours)

Admission Type	Green	Amber	Red
Elective Surgery	71% (87)	6% (7)	23% (28)
Non Elective Surgery	41% (53)	9% (12)	50% (65)

Table 6: % who mobilise by RAG <= 48 hours (Elective)

RAG rating	Not Mobilised	Mobilised
Green	6% (5)	94% (82)
Amber	14% (1)	86% (6)
Red	93% (26)	7% (2)

Table 7 % who mobilise by RAG - <= 48 hours (Non-Elective)

RAG rating	Not Mobilised	Mobilised
Green	19% (10)	81% (43)
Amber	33% (4)	67% (8)
Red	98% (64)	2% (1)

Appendix 2

VIS calculations

Drug Dose Administrated to Achieve a VIS of 10

Drug	Dose Administrated to Achieve a VIS of 10
Dopamine	10 µg/kg/min
Dobutamine	10 µg/kg/min
Enoximone	10 µg/kg/min
Phenylephrine	1 µg/kg/min
Milrinone	1 µg/kg/min
Olprinone	1 µg/kg/min [*]
	0.4 µg/kg/min [†]
Levosimendan	0.2 µg/kg/min
Epinephrine	0.1 µg/kg/min
Norepinephrine	0.1 µg/kg/min
Vasopressin	0.001 U/kg/min (0.07 U/min for a 70 kg patient)

Appendix 4

RAG rating categorisation

Item	RAG
Respiratory	
FiO ₂ > 0.6	Amber
SaO ₂ < 0.9	Red
RR >30	Amber
HFOV	Red
PEEP > 10	Amber
Ventilator Dysynchrony *	Amber
Cardiovascular	
IV anti-hypertensives for hypertensive emergency *	Red
MAP Symptomatic below target +/- Vasoactive agents*	Red
MAP greater than lower limit of target range on high level of Vasoactive support*	Red
Known or suspected severe pulmonary hypertension*	Amber
Bradycardia requiring pharmacological treatment	Red
Bradycardia not requiring pharmacological treatment	Amber
Transvenous or epicardial pacemaker with dependent rhythm	Red
Vent Dy synchrony*	Amber
ST > 150	Red
ST 120 – 150	Amber
Femoral IABP	Red
ST 120 – 150	Amber
ECMO Femoral or subclavian	Red
ECMO Single bicaval	Amber
DVT/PE *	Amber
Cardiac Ischemia *	Amber
Neurological	
RASS -2 or +2	Amber
RASS < -2	Red

Item	RAG
RASS +2 or combative *	Red
Delirium +tve and able to follow simple commands*	Amber
Delirium +tve and not able to follow simple commands *	Amber
Active management of ICP with ICP not in desired range *	Red
ICP monitoring without active management of ICP *	Amber
Uncontrolled seizures*	Red
Vasospasm *	Amber
Medical	
Known uncontrolled active Bleeding*	Red

* documented in reasons not mobilised