

Supplementary Table. Registration Data Details

Variable	Data input format	Options	Additional description
Patient baseline characteristics			
PICU admission day	YY/MM/DD		
Birth date	YY/MM/DD		
Age (months)	None		Calculated from the date of birth and date of admission to PICU.
Gender	Binary	Male/Female	
Height (cm)	Numeric		Integer only.
Weight (kg)	Numeric		Enter to the first decimal place.
Underlying disease	Free description		If there is no underlying disease, "None" is indicated.
Chromosomal abnormality	Binary	No/Yes	
Congenital heart disease	Binary	No/Yes	
PCPC	5 levels	1/2/3/4/5	
Renal replacement therapy dependence	3 levels	No/Yes (hemodialysis)/ Yes (peritoneal dialysis)	
Baseline serum creatinine (mg/dL)	Numeric		Enter to the first decimal place. If the base value is unknown, enter "0.0".
Tracheotomized state	Binary	No/Yes	This refers to tracheotomy or laryngotracheal separation. If the tracheostomy has already been closed, select "No".
Use of home ventilator	Binary	No/Yes	Including non-invasive positive pressure ventilation.
Hematopoietic stem cell transplantation prior to PICU admission	Binary	No/Yes	
Reason for PICU admission	12 levels	Post-operative/ Respiratory/Circulatory/ Renal/Neurological/Hematological · solid tumor/Endocrine · metabolic/Infection · sepsis/Post-cardiac arrest/Trauma/Drug poisoning/Others	
Surgical classification	10 levels	Not after surgery/Cardiac/ Gastrointestinal/Liver/Neurological/ Respiratory/Plastic/Orthopedic/ Otolaryngological/Others	
PIM3 at PICU admission (%)	Numeric		Enter to the first decimal place.
pSOFA at PICU admission	Numeric		Integer only.
CRRT initiation and initial circuit information			

CRRT initiation date	YY/MM/DD		
CRRT initiation time	HH:MM		Enter in 24-hour notation
Reason for CRRT initiation	7 levels	Fluid overload/Acid-base· electrolyte/Metabolic/Drug addiction/Sepsis/Temperature control/Others	Select all reasons that apply. If "others" is selected, provide details in the free description.
Vascular access size (Fr or G)	Numeric		Integer only. If no catheter is used, e.g., directly in the ECMO circuit, enter "0".
Vascular access insertion site	12 levels	Right Internal Jugular/Left Internal Jugular/Right femoral/Left femoral/ Right subclavian/Left subclavian/ Others/ECMO (pre-pump)/ ECMO (post-pump)/ECMO (shunt)/ ECMO (venous:post,arterial:pre-pump)	
ECMO concurrently with CRRT	Binary	No/Yes	
Data immediately prior to CRRT initiation			
Total urine output for the 24 hours prior to CRRT initiation (mL)	Numeric		Integer only. Enter the exact urine volume due to indwelling urinary catheter. If the urinary catheter was placed less than 24 hours prior to induction, estimate the 24-hour urine output using the urine output at the time it was available. If the urine volume is unknown, enter "-1".
Serum creatinine (mg/dL)	Numeric		Enter to the first decimal place.
Serum blood urea nitrogen (mg/dL)	Numeric		Enter to the first decimal place.
BGA - pH	Numeric		Enter to the second decimal place.
BGA - Base excess	Numeric		Enter to the first decimal place.
BGA - HCO ₃ ⁻ (mEq/L)	Numeric		Enter to the first decimal place.
BGA - Sodium (mEq/L)	Numeric		Integer only.
BGA - Potassium (mEq/L)	Numeric		Enter to the first decimal place.
BGA - Chloride (mEq/L)	Numeric		Integer only.
BGA - Lactate (mmol/L)	Numeric		Enter to the first decimal place.
Hemoglobin (g/dL)	Numeric		Enter to the first decimal place.
Platelet count (/μL)	Numeric		Integer only.
PT (INR)	Numeric		Enter to the first decimal place.
APTT (sec)	Numeric		Integer only.
Fibrinogen (mg/dL)	Numeric		Integer only.

Central venous pressure (mmHg)	Numeric		Integer only.
Systolic arterial pressure (mmHg)	Numeric		Integer only.
Diastolic arterial pressure (mmHg)	Numeric		Integer only.
Heart rate (bpm)	Numeric		Integer only.
Respiratory support	6 levels	Invasive positive pressure ventilation/Non-invasive positive pressure ventilation/High flow nasal cannula/Other oxygen therapy/Others/None	
Dopamine (γ)	Numeric		Integer only.
Dobutamine (γ)	Numeric		Integer only.
Milrinone (γ)	Numeric		Enter to the first decimal place.
Adrenaline (γ)	Numeric		Enter to the second decimal place.
Noradrenaline (γ)	Numeric		Enter to the second decimal place.
Vasopressin (mU/kg/min)	Numeric		Enter to the first decimal place.
Priming capacity of first circuit (mL)	Numeric		Integer only. If unknown, enter "0".
CRRT modality	5 levels	CVVHD/CVVHDF/CVVH/ECUM/Others	If "others" is selected, provide details in the free description.
Hemofilter material	6 levels	PS/CTA/PMMA/AN69ST/PAN/Others	If "others" is selected, provide details in the free description.
Hemofilter membrane area (m ²)	Numeric		Enter to the first decimal place. If unknown, enter "0.0".
Blood priming	Binary	No/Yes	
Blood priming - Red cell products (mL)	Numeric		Describe the volume used in blood priming.
Blood priming - Albumin preparation (mL)	Numeric		Describe the volume used in blood priming.
Blood priming – Plasma derivatives (mL)	Numeric		Describe the volume used in blood priming.
Dialysis after blood priming and before patient connection	Binary	No/Yes	
Data immediately after CRRT initiation			
Adverse event	6 levels	None/Blood pressure decrease requiring intervention/Disequilibrium syndrome/Anaphylaxis/Cardiopulmonary arrest/Others	Select all adverse events immediately after CRRT initiation that apply. If "Others" is selected, provide details in the free description.
Dopamine (γ)	Numeric		Max dose up to 1 hour after CRRT initiation. Integer only.
Dobutamine (γ)	Numeric		Max dose up to 1 hour after CRRT initiation. Integer only.

Milrinone (γ)	Numeric		Max dose up to 1 hour after CRRT initiation. Enter to the first decimal place.
Adrenaline (γ)	Numeric		Max dose up to 1 hour after CRRT initiation. Enter to the second decimal place.
Noradrenaline (γ)	Numeric		Max dose up to 1 hour after CRRT initiation. Enter to the second decimal place.
Vasopressin (mU/kg/min)	Numeric		Max dose up to 1 hour after CRRT initiation. Enter to the first decimal place.
Initial settings – Qb (mL/min)			
Initial settings – Qd (mL/hour)			
Initial settings – Qs (mL/hour)			
Max – Qd (mL/hour)			Max setting before first circuit exchange
Max – Qs (mL/hour)			Max setting before first circuit exchange
Date of first circuit exchange	YY/MM/DD		
Time of first circuit exchange	HH:MM		
Reason for first circuit exchange	7 levels	CRRT terminated/Preventive replacement before blockage/Exchange at regular time intervals/Exchange at blockage/Disconnection for more than 60 minutes for procedures or tests/Along with ECMO circuit exchange/Others	If “others” is selected, provide details in the free description.
Anticoagulants used in the first circuit	6 levels	Nafamostat/Unfractionated heparin/Low-molecular-weight heparin/Argatroban/None/Others	Select all that apply.
Anticoagulant monitoring in the first circuit	6 levels	ACT/APTT/Thromboelastography/anti-Xa/Others/None	Select all that apply. If “others” is selected, provide details in the free description.
Information during CRRT			
Adverse events			
Intracranial bleeding	3 levels	None/Minor bleeding not requiring intervention/Serious bleeding requiring intervention	Select "None" if you have not taken any imaging tests. Interventions include, for example, surgical procedures and blood transfusions.
Non-intracranial bleeding	3 levels	None/Minor bleeding not requiring intervention/Serious bleeding requiring intervention	Interventions include, for example, surgical procedures and blood transfusions.
Adverse events related to vascular access	8 levels	None/Bleeding requiring intervention during insertion · arterial misperforation/CRBSI/ Cardiac tamponade/ Arrhythmia requiring intervention/ Hemothorax/Accidental catheter removal/	Select all that apply. If “others” is selected, provide details in the free description.

		Others	
Other CRRT-related adverse events	8 levels	None/Thromboembolism/Air embolism/Blood loss due to accidental circuit disconnection/Hypothermia below 35 degrees Celsius/Fall from bed/Cardiac arrest/Others	Select all that apply. If “others” is selected, provide details in the free description.
Rehabilitation	3 levels	None/Modest rehabilitation/Aggressive rehabilitation	Select the most appropriate level of attempted rehabilitation during CRRT. If moderate or aggressive rehabilitation is selected, at least one rehabilitation must have been performed during CRRT. If rehabilitation was attempted but could not be performed, select None. Modest rehabilitation means only in-bed interventions such as ROM. Active rehabilitation means the same level of rehabilitation as is performed when the patient is not on CRRT.
Sedation and analgesia management	8 levels	None/Midazolam/Fentanyl/Dexmedetomidine/Morphine/Ketamine/Muscle relaxant/Oral sedative	Select the sedatives and analgesics regularly used to achieve the sedation target in the following section. Do not include single use only. For intravenous drugs and muscle relaxant, it means continuous administration.
Sedation target (assessed using the Richmond Agitation-Sedation Scale)	9 levels	No target/-5/-4/-3/-2/-1/0/+1/+2	
Total CRRT days (day)	Numeric		Integer only.
Information at the time of PICU discharge			
PICU discharge date	YY/MM/DD		
PICU diagnosis	Free description		
PCPC	6 levels	1/2/3/4/5/Death	
Serum creatinine (mg/dL)	Numeric		Enter to the first decimal place. Enter data closest to the time of PICU discharge.
Renal replacement therapy dependence	3 levels	None/Yes (peritoneal dialysis)/Yes (intermittent hemodialysis)	Enter “None” for death.
Information at 6 months after PICU discharge			
PCPC	7 levels	1/2/3/4/5/Death/Unknown	
Serum creatinine (mg/dL)	Numeric		Enter to the first decimal place. Enter the value closest to 6 months

			among those measured between 3–6 months from PICU discharge.
Renal replacement therapy dependence	5 levels	None/Yes (peritoneal dialysis)/Yes (intermittent hemodialysis)/Unknown/Death	Enter “None” for death.
Unscheduled PICU readmission	4 levels	No/Yes/Unknown/Death	Enter whether unscheduled PICU readmission within 6 months of PICU discharge.

PICU, pediatric intensive care unit; PIM3, Pediatric Index of Mortality 3; pSOFA, Pediatric Sequential Organ Failure Assessment; PCPC, Pediatric Cerebral Performance Category Scale; CRRT, continuous renal replacement therapy; ECMO, extracorporeal membrane oxygenation; BGA, blood gas analysis; PT, Prothrombin time; APTT, activated partial thromboplastin time; Qb, blood flow rate; Qd, dialysis fluid rate; Qs, replacement fluid rate; ACT, activated clotting time; CVVHD, continuous venovenous hemodialysis; CVVHDF, continuous venovenous hemodiafiltration; CVVH, continuous venovenous hemofiltration; ECUM, extracorporeal ultrafiltration method; PS, Polysulfone; CTA, cellulose triacetate; PMMA, polymethylmethacrylate; PAN, polyacrylonitrile; BGA, blood gas analysis; ACT, activated clotting time; APTT, activated partial thromboplastin time; Qb, blood flow rate; Qd, dialysis fluid rate; Qs, replacement fluid rate; CRBSI, catheter related blood stream infection; ROM, range of motion.