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## Appendix 1 List of data to be collected

The following data will be collected for all enrolled patients admitted to intensive care unit (ICU) during the screening period. Day 0 is defined as the day of initiation of invasive ventilation. Day 1 is defined as the first full calendar day after initiation of invasive ventilation.

### A. At ICU admission

- Gender, male/female/other;
- Age, years;
- Weight, kg;
- Length, cm;
- Ethnicity, European, Northern African, Middle Eastern, Black or Sub-Saharan African, Asian, Hispanic/Latino, Pacific Islander, Native American or Alaska Native;
- Comorbidities;
- Reason for ICU admission;
- Date of ICU admission;
- Date of start of invasive ventilation;
- Serum creatinine,  $\mu\text{mol/L}$  or  $\text{mg/dL}$ , lowest in the last year, if available; and
- Chronic diuretic usage, yes/no/unknown;

### B. On day 0

- Type and volume, mL, of each fluid infusion (including medication and parenteral nutrition);
- Type and volume of oral fluids;
- Anuria  $\geq 12$  hours? yes/no;
- Urine output, mL, over 24 hours;
- Renal replacement therapy, yes/no, if yes;
  - Volume extracted by ultrafiltration, mL, over 24 hours;
- Cumulative fluid balance, mL;
- Loop diuretics given, yes/no, if yes;
  - Furosemide, yes/no, if yes;
    - (if no furosemide used) Bumetanide, yes/no, if yes;
    - (if no bumetanide or furosemide used) Torasemide, yes/no, if yes;
- Additional diuretic given (thiazide, carbonic anhydrase inhibitor or mineralocorticoid antagonist), yes/no;
- Serum creatinine,  $\mu\text{mol/L}$  or  $\text{mg/dL}$ , at a convenient fixed time point;
- Vasopressors initiated, yes/no, if yes;
  - Time between ICU admission and initiation of vasopressors, hours;
  - Drug(s) used as vasopressor;
- Mean arterial pressure (MAP) mmHg, at a convenient fixed time point;
- Heart rate, beats/min, at a convenient fixed time point;
- Atrial fibrillation or flutter during the last day, yes/no;
- Arterial or venous lactate, if measured,  $\text{mmol/L}$ , highest and lowest value;
- (Central) venous oxygen saturation (S(c)VO<sub>2</sub>),  $\text{mmol/L}$ , if measured, highest and lowest value;
- Arterial partial pressure of oxygen (PaO<sub>2</sub>), kPa or mmHg, at a convenient fixed time point;
  - (if no PaO<sub>2</sub> is known) Peripheral arterial oxygen saturation (SpO<sub>2</sub>), percentage, at a convenient fixed time point;
- Inspired oxygen fraction, %, at time of PaO<sub>2</sub> or (if no PaO<sub>2</sub> is known) SpO<sub>2</sub>;
- Was there new-onset (<7 days) respiratory symptoms, or acute worsening of respiratory symptoms? yes/no, if yes;
- Are there bilateral opacities on chest imaging (including lung ultrasound), yes/no;
- Was there hypoxemia explained by cardiac failure, yes/no?
- Clinical diagnosis of sepsis, yes/no;
- Richmond Agitation Sedation Scale (RASS), highest value of this day after intubation; and

- Sequential Organ Failure Assessment (SOFA) score.
- Was there HFNO or NIV initiated before intubation?
  - If yes, when was HFNO or NIV initiated.

### C. Daily on day 1 and 2

- Type, volume, mL, and rate, mL/min, of each separate fluid infusion (including medication and parenteral nutrition);
- Type and volume of oral fluids;
- Anuria  $\geq 12$  hours? yes/no;
- Urine output, mL, over 24 hours;
- Renal replacement therapy, yes/no, if yes;
  - Volume extracted by ultrafiltration, mL, over 24 hours;
- Cumulative fluid balance, mL;
- Loop diuretics given, yes/no, if yes;
  - Furosemide, yes/no, if yes;
    - (if no furosemide used) Bumetanide, yes/no, if yes;
    - (if no bumetanide or furosemide used) Torasemide, yes/no;
  - Additional diuretic given (thiazide, carbonic anhydrase inhibitor or mineralocorticoid antagonist), yes/no;
- Serum creatinine,  $\mu\text{mol/L}$  or  $\text{mg/dL}$ , at a convenient fixed time point;
- Vasopressors given, yes/no, if yes;
  - Time between ICU admission and initiation of vasopressors, only if not initiated on day 0, hours;
  - Drug(s) used as vasopressor;
- MAP, mmHg, at a convenient fixed time point;
- Heart rate, beats/min, at a convenient fixed time point;
- Atrial fibrillation or flutter during the last day, yes/no;
- Arterial or venous lactate,  $\text{mmol/L}$ , highest and lowest value;
- S(c)VO<sub>2</sub>,  $\text{mmol/L}$ , highest and lowest value;
- PaO<sub>2</sub>, kPa or mmHg, at a convenient fixed time point;
  - (if no PaO<sub>2</sub> is known) Peripheral arterial oxygen saturation (SpO<sub>2</sub>), percentage, at a convenient fixed time point;
- Inspired oxygen fraction, %, at time of PaO<sub>2</sub> or (if no PaO<sub>2</sub> is known) SpO<sub>2</sub>;
- Was there new-onset (<7 days) respiratory symptoms, or acute worsening of respiratory symptoms? yes/no, if yes;
- Are there bilateral opacities on chest imaging (including lung ultrasound), yes/no;
- Was there hypoxemia explained by cardiac failure? yes/no;
- Clinical diagnosis of sepsis, yes/no;
- Richmond Agitation Sedation Scale (RASS), highest value of the day; and
- SOFA score.

### D. Daily on day 3 to 7 or ICU discharge

- Total volume of infused fluid, mL, over 24 hours
- Cumulative fluid balance, mL, over 24 hours;
- Urine output, mL, over 24 hours;
- Renal replacement therapy, yes/no, if yes;
  - Volume extracted by ultrafiltration, mL, over 24 hours;
- Loop diuretics given, yes/no, if yes;
  - Furosemide, yes/no, if yes;
    - (if no furosemide used) Bumetanide, yes/no, if yes;
    - (if no bumetanide or furosemide used) Torasemide, yes/no;
  - Additional diuretic given (thiazide, carbonic anhydrase inhibitor or mineralocorticoid antagonist), yes/no;
- Serum creatinine,  $\mu\text{mol/L}$  or  $\text{mg/dL}$ , at a convenient fixed time point;
- Vasopressors used, yes/no, if yes;
  - Drug(s) used as vasopressor;

- MAP, mmHg, at a convenient fixed time point;
- Heart rate, beats/min, at a convenient fixed time point
- Atrial fibrillation or flutter during the last day, yes/no;
- Arterial or venous lactate, mmol/L, highest value;
- PaO<sub>2</sub>, kPa or mmHg, at a convenient fixed time point;
  - (if no PaO<sub>2</sub> is known) Peripheral arterial oxygen saturation (SpO<sub>2</sub>), percentage, at a convenient fixed time point;
- Inspired oxygen fraction, %, at time of PaO<sub>2</sub> or (if no PaO<sub>2</sub> is known) SpO<sub>2</sub>; and
- SOFA score.

**E. Follow-up (at hospital discharge, day 90, or death, whichever comes first)**

- Vital status, alive/dead, if dead;
  - Date of death;
- Reintubation, yes/no, if yes;
  - Number of reintubations;
  - Date of initial extubation;
  - Date of reintubation;
- Date of last extubation (or in the case of tracheostomy 24 hours without support from the ventilator);
- Date of ICU discharge;
- Date of hospital discharge; and
- Subjects requires renal replacement therapy or hemodialysis, yes/no