

S2 Table. Fluid indication hierarchy used in analysis

<p>1. Impaired perfusion OR low cardiac output</p>	<p>YES to any of: Low urine output (3.08) Low measured cardiac output (3.09-3.11) Low SvO2/ScvO2 (3.13) Clinical signs of poor peripheral perfusion (3.12) Increasing or persisting acidosis or lactate (3.17) Positive Straight Leg Raise test (3.18) Abnormal indices of Pulse Pressure Variation (3.19)</p>
<p>2. Ongoing bleeding</p>	<p>NO to all of: Low urine output (3.08) Low measured cardiac output (3.09-3.11) Low ScO2/ScvO2 (3.13) Clinical signs of poor peripheral perfusion (3.12) Increasing or persisting acidosis or lactate (3.17) Positive Straight Leg Raise test (3.18) Abnormal indices of Pulse Pressure Variation (3.19) YES to: Ongoing bleeding (3.14) Other = Anemia Other = Coagulopathy</p>
<p>3. Other (non-hemorrhagic) fluid losses</p>	<p>NO to all of: Low urine output (3.08) Low measured cardiac output (3.09-3.11) Low ScO2/ScvO2 (3.13) Clinical signs of poor peripheral perfusion (3.12) Increasing or persisting acidosis or lactate (3.17) Positive Straight Leg Raise test (3.18) Abnormal indices of Pulse Pressure Variation (3.19) Ongoing bleeding (3.14) Other = Anemia Other = Coagulopathy YES to: Other ongoing fluid loss (3.15)</p>
<p>4. Unit protocol</p>	<p>NO to all of: Low urine output (3.08) Low measured cardiac output (3.09-3.11) Low ScO2/ScvO2 (3.13) Clinical signs of poor peripheral perfusion (3.12) Increasing or persisting acidosis or lactate (3.17) Positive Straight Leg Raise test (3.18) Abnormal indices of Pulse Pressure Variation (3.19) Ongoing bleeding (3.14) Other ongoing fluid loss (3.15) Other = Anemia Other = Coagulopathy YES to any of: Unit protocol or standing orders (3.16)</p>
<p>5. Abnormal vital signs only</p>	<p>NO to all of: Low urine output (3.08) Low measured cardiac output (3.09-3.11) Low ScO2/ScvO2 (3.13) Ongoing bleeding (3.14) Other ongoing fluid loss (3.15) Unit protocol or standing orders (3.16) Clinical signs of poor peripheral perfusion (3.12) Increasing or persisting acidosis or lactate (3.17) Positive Straight Leg Raise test (3.18) Abnormal indices of Pulse Pressure Variation (3.19) YES to any of: Hypotension (3.03) Increasing inotrope or vasopressor requirements (3.04) Low CVP (3.05) Low PCWP (3.06) Tachycardia (3.07)</p>
<p>6. Other</p>	<p>NO to: 3.03 – 3.19 YES to: Other (3.20) unless it falls into one of the other specified categories</p>

Table S2: Number next to the fluid indication relates to the case report form data number.