

2022

# SEP-1 Definitions & Details

**Time Zero:** The time at which the last of these 3 criteria are met:

- 1) Suspected infection (**be careful, differential diagnosis and ordering antibiotics count**)
- 2) Two or more SIRS<sup>1</sup> criteria
- 3) Signs of organ dysfunction<sup>2</sup> **OR** the time the provider documents “severe sepsis” or “septic shock” was suspected **OR** the time the chart was started by a provider if timing not documented.

**Excluded populations:**

- Pediatrics <18 years old
- Patients discharged from ED to home, hospice-home, hospice-health care facility or other health care facility or AMA
- Patients placed on comfort care/hospice OR with palliative care consult within 6 hours OR who die within 3 hours of severe sepsis presentation (existing hospice patients must have new palliative care order within 3 hrs)
- Patients transferred in from other acute-care facilities
- Patients that received IV antibiotics for more than 24 hours prior to presentation
- Patients enrolled in clinical trials related to sepsis, severe sepsis, septic shock

**<sup>1</sup> SIRS Criteria:**

1. Temp >38.3°C (100.9°F) or <36°C (96.8°F )
2. HR >90
3. RR >20
4. WBC >12K, <4K, or >10% bands

**<sup>2</sup> Signs of Organ Dysfunction (indicators of Severe Sepsis):**

- Lactate > 2 mmol/L (18.0 mg/dL)
- Single reading of a systolic blood pressure < 90 mmHg, or mean arterial pressure < 65 mmHg, or a systolic blood pressure decrease of more than 40 mmHg (for decrease in BP it must be documented by physician, PA, NP to count)
- New need for invasive or non-invasive mechanical ventilation (BiPAP or CPAP counts)
- Creatinine > 2.0, or urine output < 0.5 mL/kg/hour for 2 hours
- Bilirubin > 2 mg/dL (34.2 mmol/L)
- Platelet count < 100,000
- INR > 1.5 or aPTT > 60 sec

**<sup>3</sup> Septic Shock Definition**

- Lactate ≥ 4 mmol/L (18.0 mg/dL)
- Systolic blood pressure < 90 mmHg, or MAP < 65 mmHg, or a decrease in systolic blood pressure by > 40 mmHg within one hour of the conclusion of crystalloid fluid administration (30mL/kg)

**<sup>4</sup> Calculation of Ideal Body Weight (IBW) for BMI > 30**

- Men = 50 kg + 2.3 kg x (height, in - 60)
- Women = 45.5 kg + 2.3 kg x (height, in - 60)
- Note: By using IBW, a male would have to be 6ft 10in tall before requiring 3L NS
- IBW calculators are online, e.g. MDCalc

**<sup>5</sup> Documentation Requirements: Exclusion for 30ml/kg Crystalloid Fluid Administration (must document both)**

1. Document the volume of fluids to be administered instead of 30ml/kg as a specific volume (1L) or weight-based volume (25ml/kg)
2. The reason for ordering less fluids, including but not limited to: Concern for fluid overload, heart failure, renal failure or blood pressure responded to lesser volume

2022

# SEP-1 Documentation Tips & Exclusions

## 3-Hour Bundle

Bundle Component	Documentation of Exclusions
<b>Draw Initial Lactate</b> (>2 indicates Organ Dysfunction <sup>2</sup> )	<ul style="list-style-type: none"> <li><b>Difficult access or patient refusal:</b> Order lactate <b>AND</b> document that blood draw was attempted but could not be due to difficult access or patient refusal</li> </ul>
<b>Draw Blood Cultures Before Antibiotics</b>	<ul style="list-style-type: none"> <li><b>Difficult access or patient refusal:</b> Order blood culture <b>AND</b> document that blood draw was attempted but could not be due to difficult access or patient refusal</li> <li><b>Note:</b> Cultures may be drawn after IV antibiotics <b>IF</b> provider documents that waiting for blood cultures would have resulted in a delay of antibiotics of 45+ min</li> </ul>
<b>Start IV Antibiotics</b> (No longer restricted to broad spectrum)	<ul style="list-style-type: none"> <li><b>Difficult access:</b> IM or IO antibiotics are ok <b>ONLY</b> if there is documentation that IV access could not be obtained</li> <li><b>Patient refusal:</b> Order antibiotics <b>AND</b> document patient refusal</li> </ul>
<b>Administer 30 mL/kg of IV Fluids</b> (For Septic Shock <sup>3</sup> <b>OR</b> Severe Sepsis <sup>2</sup> with initial hypotension)	<ul style="list-style-type: none"> <li><b>Ideal body weight (IBW)<sup>4</sup>:</b> May be used if BMI &gt; 30 but BMI and IBW must be documented and the provider must document that IBW was used for IVF calculation</li> <li><b>Patient refusal:</b> Order fluids <b>AND</b> document patient's refusal</li> <li><b>Ventricular Assist Device:</b> VAD patients are excluded from the fluid requirement</li> <li><b>Concern for fluid overload, heart failure, renal failure or BP response to lesser volume<sup>5</sup>:</b> See reverse for documentation requirements</li> </ul>

## 6-Hour Bundle

<b>Draw Repeat Lactate</b>	<ul style="list-style-type: none"> <li><b>Difficult access or patient refusal:</b> If initial lactate is &gt; 2, order repeat lactate <b>AND</b> document that blood draw was attempted but could not be due to difficult access or patient refusal</li> </ul>
<b>Start Vasopressors</b> (if hypotensive after fluid bolus)	<ul style="list-style-type: none"> <li><b>Patient refusal:</b> Order approved pressor <b>AND</b> document patient refusal</li> </ul>
<b>Perform Sepsis Focused Exam</b> (after IV fluids have been started)	<ul style="list-style-type: none"> <li><b>Document and time:</b> "I have performed a sepsis focused exam" to qualify for the measure component</li> </ul>

Measures in blue boxes are only required for patients with septic shock, initial lactate >4 or for patients with initial hypotension and are NOT required in severe sepsis.