

# Sepsis Screening Tool and Algorithm for Critical Access Hospitals: Time is Tissue

Initiate STAT Sepsis Care **within one hour of presentation**, then consider transferring to the closest regional sepsis center.

## Infection

Does the patient have one or more of the following?

- Known or suspected infection
- Post-op /invasive procedure
- Cellulitis/new purulent wound drainage
- Immunocompromised
- Cough or SOB
- On antibiotics
- Abdominal pain
- Altered mentation

## Systemic Inflammatory Response Syndrome (SIRS)

Does the patient have two or more SIRS criteria?

- Temperature >100°F or 38°C
- Temperature <96.6°F or 36°C
- Heart rate >90
- Respiratory Rate >20
- WBC <4 or >12 or 10% bands
- Altered mentation (*not SIRS, but a good indicator.*)

STAT

- Consider telemedicine consult.
- Draw lactate level. (*Remeasure if initial >2.*)
- Draw blood cultures (BC). (*Do not delay antibiotics if there is difficulty obtaining BC.*)
- Administer broad-spectrum IV antibiotic(s) for likely pathogen. (*Give antibiotics prior to transport and within 1 hour after arrival to ED.*)
- Consider transfer to regional sepsis center in accordance with EMTALA provisions.

Time Zero Sepsis \_\_\_\_\_

## Organ Dysfunction

Does the patient have one or more of the following?

- Platelets <100,000
- aPTT >60 or INR >1.5
- Bilirubin >2
- Creatinine >2 and/or urine output <0.5mL/kg/hr x 2 hours
- SBP <90 or MAP <65
- SBP drop >40 from last normal
- Lactate >2

Time Zero Severe Sepsis \_\_\_\_\_

## Shock

Does the patient have any of the following?

- SBP <90 or MAP <65
- SBP drop >40 from last normal
- Lactate >=4

STAT

- Consider telemedicine consult.
- Give rapid IV administration of 30mL/kg crystalloid fluid bolus.** (*Within 1 hour. May use ideal body weight for patients with BMI >30.*)
- Consider transfer to regional sepsis center in accordance with EMTALA provisions.

Time Zero Septic Shock \_\_\_\_\_

- If hypotension persists after full fluid resuscitation of 30mL/kg, then start vasopressors to maintain a MAP >=65.** (*First-choice vasopressor: norepinephrine*)
- Repeat the focused exam by a licensed independent practitioner or conduct a dynamic assessment of fluid responsiveness, such as stroke volume, with passive leg raise or fluid challenge.**
- Consider transfer to regional sepsis center in accordance with EMTALA provisions.

Hospital transferred to \_\_\_\_\_

Date/time of transfer \_\_\_\_\_

Report given to receiving RN \_\_\_\_\_ Date/time \_\_\_\_\_

RN Signature \_\_\_\_\_ RN Printed Name \_\_\_\_\_

Patient Info



Sepsis is a medical emergency. It is not infection; it is the body's overwhelming and life-threatening response to infection. Sepsis can lead to tissue damage, organ failure, and death.

<p><b>2015 (SEP-1) Bundle:</b> <i>SEP-1 core measure uses older terminology such as SIRS and severe sepsis. Regardless of terminology used, early recognition and treatment remains the foundation of sepsis management. The older terms are included in this protocol to align with SEP-1 core measure data abstraction.</i></p>	<p><b>2018 (SEP-3) Bundle:</b> <i>Most current sepsis treatment bundle.</i></p>
<p>Within 3 hours:</p> <ol style="list-style-type: none"> <li>1. Measure lactate</li> <li>2. BC before abx</li> <li>3. Broad spectrum abx</li> <li>4. 30mL/kg crystalloid for hypotension or lactate <math>\geq 4</math> mmol/L</li> </ol> <p>Within 6 hours:</p> <ol style="list-style-type: none"> <li>5. Pressors if hypotensive during or after fluids resuscitation to maintain MAP <math>\geq 65</math> mmHg.</li> <li>6. If persistent hypotension (MAP<math>&lt;65</math>) after initial fluids or lactate <math>\geq 4</math>, reassess volume status and tissue perfusion.</li> <li>7. Remeasure lactate if initial elevated.</li> </ol>	<p>Within 1 hour:</p> <ol style="list-style-type: none"> <li>1. Measure lactate*</li> <li>2. BC before abx</li> <li>3. Broad spectrum abx</li> <li>4. 30mL/kg crystalloid for hypotension or lactate <math>\geq 4</math> mmol/L</li> <li>5. Pressors if hypotensive during or after fluid resuscitation to maintain MAP <math>\geq 65</math> mmHg</li> <li>6. *Remeasure lactate if initial lactate <math>&gt; 2</math> mmol/L</li> </ol>

**Tips and definitions:**

- Antibiotics: Broad spectrum antibiotics (cover gram-positive and gram-negative organisms) should be administered within one hour of diagnosis/high suspicion of sepsis. Delayed antibiotics increases the likelihood of patient death by almost 8 percent with each hour of delay.
- aPTT: activated partial thromboplastin time
- Blood cultures: Drawing blood cultures prior to antibiotic administration helps to identify the likely pathogen before antibiotics affect pathogen growth.
- Crystalloids: IV fluids with a balanced electrolyte composition (e.g., normal saline [NS], lactated ringer [LR]).
- EMTALA: Emergency Medical Treatment and Labor Act. <https://www.acep.org/life-as-a-physician/ethics--legal/emtala/emtala-fact-sheet/>
- Fluid bolus: also called fluid challenge or fluid resuscitation
- INR: international normalized ratio
- Lactate: also called lactic acid. This is a byproduct of glycolysis in anaerobic metabolism. An elevated lactate can be a sign of tissue hypoperfusion.
- MAP: mean arterial pressure
- SOB: shortness of breath
- SBP: systolic blood pressure
- Vasopressor: Also called vasoactive medications or pressors. Used for continued hypotension after fluid challenge and/or lactate  $\geq 4$ . Vasopressors are administered IV drip and should be titrated to maintain a MAP  $\geq 65$ .
- WBC: white blood cell count

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QualityNet Specifications Manual: <https://qualitynet.cms.gov/inpatient>

Sepsis Alliance: <https://www.sepsis.org>

Surviving Sepsis Campaign. <https://www.sccm.org/SurvivingSepsisCampaign/Home>