**SEPSIS: ADULT**

**ABC’s**
- Treat/Secure as needed

**Assessment**
- Vital Signs
- Past/Present History
- Time of Onset
- Physical Exam

**Oxygen**
- Nasal Cannula 2-6 LPM
- Non-Rebreather 12-15 LPM
- Bag Valve Mask 15-25 LPM

**Maintain SPO2 & ETCO2**
- 90% Medical | ETCO2
- 95% Trauma | 36-45 mm/hg

**SEPSIS: EMR / EMT**

**Transport**
- Prepare patient for transport
- Place in position of comfort
- Detailed physical exam
- Contact incoming EMS unit

**Maintain SPO2 & ETCO2**
- As needed

**SEPSIS ALERT CRITERIA:**

**Emergency Medical Services**

Activate a Sepsis Alert if the patient is positive for SIRS, hypotensive and at least “Yes” to one of the infection criteria.

1. **SIRS (Systemic Inflammatory Response Syndrome):** SIRS positive if meets ≥ 2 criteria listed below.
   - Temperature > 100.4F or < 96.8F
   - Pulse > 90 beats/minute
   - Respiratory rate > 20 breaths/minute

2. **Hypoperfusion:** ≥ 1 of the following:
   - Systolic BP < 90
   - MAP < 65
   - Altered mental status

3. **Infection:** > 1 of the following:
   - Infections (documented or suspected): Pneumonia, UTI, Wound Infection, Cellulitis, Decubitus Ulcers
   - High Risk Criteria: Nursing home, recent surgery, immuno-compromised, indwelling device, currently on antibiotics
   - Symptoms/Exam: cough; shortness of breath; purulent wound drainage; urinary pain/frequency; abdominal pain, distention, or firmness; stiff neck

State “we suspect Sepsis” and provide:
- Age of patient
- Chief complaint
- Glasgow Coma Score (GCS)
- SIRS and infection criteria
- Time of onset
- Estimated time of arrival (ETA)

Provide ED with accurate amount of fluid administered to patient. Include time each bag was started.

**SEPSIS ALERT CRITERIA:**

This material was prepared by the Great Plains Quality Innovation Network, the Medicare Quality Improvement Organization for Kansas, Nebraska, North Dakota and South Dakota, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents presented do not necessarily reflect CMS policy. 11S0W-GPQIN-NE-SEP-7/0418

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**INITIATE A SEPSIS ALERT IF:**

- Known or suspected infection and the patient meets ≥ 3 or more of the 8 clinical criteria (vital signs and exam abnormalities)
- Known or suspected infection and the patient meets the high-risk criteria and meets ≥ 2 of the 8 clinical criteria (vital signs and exam abnormalities)

### VITAL SIGNS

<table>
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<tr>
<th><strong>Heart Rate</strong></th>
<th>&lt; 1 month</th>
<th>1 to 3 months</th>
<th>≥ 3 to 12 months</th>
<th>≥ 1 to 2 years</th>
<th>≥ 2 to 4 years</th>
<th>≥ 4 to 6 years</th>
<th>≥ 6 to 10 years</th>
<th>≥ 10 – 13 years</th>
<th>&gt; 13 years</th>
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<tr>
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<td>&gt; 205</td>
<td>&gt; 205</td>
<td>&gt; 190</td>
<td>&gt; 190</td>
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<th><strong>Respiratory Rate</strong></th>
<th>&lt; 1 month</th>
<th>1 to 3 months</th>
<th>≥ 3 to 12 months</th>
<th>≥ 1 to 2 years</th>
<th>≥ 2 to 4 years</th>
<th>≥ 4 to 6 years</th>
<th>≥ 6 to 10 years</th>
<th>≥ 10 – 13 years</th>
<th>&gt; 13 years</th>
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<tr>
<th><strong>Systolic BP</strong></th>
<th>&lt; 1 month</th>
<th>1 to 3 months</th>
<th>≥ 3 to 12 months</th>
<th>≥ 1 to 2 years</th>
<th>≥ 2 to 4 years</th>
<th>≥ 4 to 6 years</th>
<th>≥ 6 to 10 years</th>
<th>≥ 10 – 13 years</th>
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<tr>
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<td>&lt; 60</td>
<td>&lt; 70</td>
<td>&lt; 70</td>
<td>&lt; 70+ (age in years x 2)</td>
<td>&lt; 70+ (age in years x 2)</td>
<td>&lt; 70+ (age in years x 2)</td>
<td>&lt; 90</td>
<td>&lt; 90</td>
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<tr>
<th><strong>Temperature</strong></th>
<th>&lt; 96.8°F or &gt; 100.4°F</th>
<th>&lt; 96.8°F or &gt; 101.3°F</th>
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### EXAM ABNORMALITIES

#### COLD SHOCK

- Decreased or weak pulses (central vs. peripheral)
- Capillary refill ≥ 3 seconds
- Mottled, cool skin
- Decreased mental status, irritability, confusion, inappropriate crying or drowsiness, poor interaction with parents, lethargy, diminished arousability, obtundation
- Malignancy, asplenia (including sickle cell disease), bone marrow transplant, central or indwelling line/catheter, solid organ transplant, severe developmental disability, cerebral palsy, immunodeficiency, immunocompromised or immunosuppression

#### WARM SHOCK

- Bounding
- Flash (< 1 second)
- Flushed, ruddy, erythoderma (other than face)
- Petechiae below the nipple, any purpura

#### NON-SPECIFIC

- High Risk Conditions
- Decreased mental status, irritability, confusion, inappropriate crying or drowsiness, poor interaction with parents, lethargy, diminished arousability, obtundation

### SEPSIS: SPOT THE SIGNS

- Confusion or disorientation
- Fever, shivering or feeling cold
- Shortness of breath
- Fast heart rate
- Extreme pain or discomfort
- Clammy or sweaty skin

[Criteria/Definitions]

**SIRS (Systemic Inflammatory Response Syndrome):** two or more of the following:
- Temperature >100.4°F or <96.8°F
- Heart rate >90 beats per minute
- Respiratory rate >20 breaths per minute
- White blood cell count:
  - >12000/mm³ or <4000/mm³ or 10% immature bands

**Sepsis:** two or more SIRS criteria plus a suspected or confirmed infection

**Severe sepsis:** sepsis plus organ dysfunction and/or organ failure

**Septic shock:** a subset of sepsis in which particularly profound circulatory, cellular and metabolic abnormalities are associated with a greater risk of mortality than with sepsis alone.

Sources: