

	<b>COUNTY OF SACRAMENTO</b> EMERGENCY MEDICAL SERVICES AGENCY	Document #	8067.06
	<u>PROGRAM DOCUMENT:</u> <b>Sepsis/Septic Shock</b>	Initial Date:	07/26/16
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Signature on File

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EMS Medical Director

EMS Administrator

**Purpose:**

- A. To establish the treatment standard for treating patients with signs and symptoms of Sepsis.

**Authority:**

- A. California Health and Safety Code, Division 2.5
- B. California Code of Regulations, Title 22, Division 9

**Definitions:**

**A. Sepsis:**

Sepsis can be a rapidly progressing, life-threatening condition due to SIRS (systemic infection). Sepsis must be recognized early and treated aggressively to prevent progression to shock and death. The most important pre-hospital interventions for Sepsis/SIRS patients include:

1. Recognition of potential Sepsis/SIRS
2. Early and aggressive fluid resuscitation
3. Pre-arrival "Sepsis Alert" notification to receiving facility.

**B. Systemic Inflammatory Response Syndrome (SIRS):**

A generalized inflammatory response to a non-specific injury and includes at least 2 of the following criteria;

1. Body temperature of > 38 C (100.4 F) or < 36 C (96.8 F).
2. Respiratory rate > 20 breaths per minute.
3. Heart rate > 90 bpm.

**Indications:**

- A. Treatment interventions and pre-arrival notification shall occur for patients meeting BOTH of the following pre-hospital sepsis criteria:
  1. Confirmed or suspected presence of infection:
    - a. By history from the patient, family, or care home.
    - b. By signs or symptoms of urinary tract infection, respiratory infection, or skin infection.
    - c. Older Adults or immune-compromised patients with otherwise unexplained ALOC and no findings to suggest acute STROKE per PD# 8060 – Stroke.

**AND**

2. Any two (2) of the following criteria:
  - a. Temperature of >38 °C (100.4 °F) or < 36 °C (96.8 °F) (Acquired by EMS or if reported by patient, family, or care home).
  - b. Respiratory rate >20 breaths per minute.
  - c. Heart rate > 90 beats per minute.
  - d. SBP < 90 mmHg
  - e. Waveform capnography, if available, with a reading of < 25mmHg

**Protocol:**

BLS
<ol style="list-style-type: none"><li>1. Use Supplemental oxygen as necessary to maintain SpO<sub>2</sub> ≥ 94%. Use lowest concentration and flow rate of O<sub>2</sub> as possible.</li><li>2. Perform blood glucose determination</li><li>3. Conduct a pre-arrival “Sepsis Alert” notification to the receiving facility.</li><li>4. Transport</li></ol>
ALS
<ol style="list-style-type: none"><li>1. Cardiac Monitoring</li><li>2. Establish vascular access.<ul style="list-style-type: none"><li>• Administer a 500 ml bolus of Normal Saline to <b>ALL</b> patients regardless of Systolic Blood Pressure (SBP).</li><li>• If SBP remains &lt; 90 mmHG, repeat 500 ml bolus of NS until SBP &gt; 90 mmHG. Total amount of fluid not to exceed 2000 ml. Recheck vital signs and lung sounds after every 500 ml bolus.</li><li>• Give boluses in rapid succession if SBP remains &lt; 90 mmHG.</li><li>• Albuterol if wheezing and SOB per PD# 8026 – Respiratory Distress.</li></ul></li><li>3. If SBP remains &lt; 90 mmHg after four (4) fluid boluses:<ul style="list-style-type: none"><li>• <b>Push Dose Epinephrine</b> 0.01 mg/ml (10mcg/ml). DOSE: 0.5-2 ml (5-20mcg) every 2-5 minutes (5-20mcg) IV/IO Titrate to SBP &gt; 90 mmHg NOTE: Monitor SBP while administering/titrating.</li></ul></li></ol>

- Cross Reference:** PD# 8002 – Diabetic Emergency (Hypoglycemia/Hyperglycemia)  
PD# 8020 – Respiratory Distress: Airway Management  
PD# 8026 – Respiratory Distress  
PD# 8038 – Shock  
PD# 8060 – Stroke

[Paramedic-Initiated CMS Sepsis Core Measure Bundle Prior to Hospital Arrival: A Stepwise Approach - PubMed \(nih.gov\)](#)

[Prehospital Antibiotics Improve Morbidity and Mortality of Emergency Medical Service Patients with Sepsis \(hcahealthcare.com\)](#)