

	COUNTY OF SACRAMENTO EMERGENCY MEDICAL SERVICES AGENCY	Document #	8067.07
	<u>PROGRAM DOCUMENT:</u> Sepsis/Septic Shock	Initial Date:	07/26/2016
		Last Approval Date:	09/23/24
		Effective Date:	05/01/25
		Next Review Date:	09/01/26

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
<ul style="list-style-type: none">1. Supplemental O₂ as necessary to maintain SpO₂ ≥ 94%. Use the lowest concentration and flow rate of O₂ as possible.2. Perform blood glucose determination.3. Conduct a pre-arrival “Sepsis Alert” notification to the receiving facility.4. Transport.
ALS
<ul style="list-style-type: none">1. Cardiac Monitoring.2. Establish vascular access.3. PRESSURE BAG ALL SALINE BOLUSES<ul style="list-style-type: none">• Administer a 500 ml bolus of Normal Saline to ALL patients regardless of Systolic Blood Pressure (SBP).• If SBP remains < 90 mmHG, repeat 500 ml bolus of NS until SBP > 90 mmHG. Total amount of fluid not to exceed 2000 ml. Recheck vital signs and lung sounds after every 500 ml bolus.• Give boluses in rapid succession if SBP remains < 90 mmHG.• Albuterol if wheezing and SOB per PD# 8026 – Respiratory Distress.4. If SBP remains < 90 mmHg after four (4) fluid boluses:<ul style="list-style-type: none">• Push Dose Epinephrine 0.01 mg/ml (10mcg/ml). DOSE: 0.5-2 ml (5-20mcg) every 2-5 minutes (5-20mcg) IV/IO Titrate to SBP > 90 mmHg NOTE: Monitor SBP while administering/titrating.

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 \(hcahealthcare.com\)](#)