

**COUNTY OF SACRAMENTO
EMERGENCY MEDICAL SERVICES AGENCY**



Program Document: **Sepsis/Septic Shock**

Policy Number: 8067.08

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Signature on File

EMS Medical Director

Signature on File

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 $>38^{\circ}\text{C}$ (100.4°F) or $< 36^{\circ}\text{C}$ (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 < 25 mmHg

Protocol:

BLS:

1. Supplemental O2 as necessary to maintain $\text{SpO}_2 \geq 94\%$. 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:

1. Cardiac Monitoring.
2. Establish vascular access.
3. PRESSURE BAG ALL SALINE BOLUSES
 - a. Administer a 500 ml bolus of Normal Saline to **ALL** patients regardless of Systolic Blood Pressure (SBP).
 - b. 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.
 - c. Give boluses in rapid succession if SBP remains < 90 mmHG.

- d. Albuterol if wheezing and SOB per PD# 8026 – Respiratory Distress.
- 4. If SBP remains < 90 mmHg after four (4) fluid boluses:
 - a. **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 References:

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 \(hcahealthcare.com\)](#)