

	COUNTY OF SACRAMENTO EMERGENCY MEDICAL SERVICES AGENCY	Document #	8067.02
	PROGRAM DOCUMENT:	Initial Date:	07/26/16
	Sepsis/Septic Shock	Last Approval Date:	05/01/17
		Effective Date:	05/01/19
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 EMS Medical Director

 EMS Administrator

Purpose:

- A. To serve as the treatment standard for ~~EMT's and Paramedics~~ 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. **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 (96.8F).
 2. Respiratory rate >20 breaths per minute.
 3. Heart rate >90 bpm.
- B. **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 SIRS/Sepsis patients include:
 1. Recognition of potential SIRS/SEPSIS
 2. Early and aggressive fluid resuscitation
 3. Pre-arrival Sepsis Alert" notification to receiving facility.
- ~~1. **Severe Sepsis:**
 Sepsis with organ dysfunction, hypoxia, decreased organ perfusion, hypotension, elevated serum lactate levels (metabolic acidosis) and consequently low EtCO2 levels.~~
- ~~2. **Septic Shock:**
 Sepsis-induced hypotension despite fluid resuscitation and evidence of hypoperfusion.~~

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 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 (see stroke protocol),

AND

2. Any **two** of the following SIRS 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 bpm.
 - d. SBP<90 mmHg

~~If a patient does not meet Sepsis Criteria, continue assessment, care and transport appropriate for presenting complaint and assessment.~~

Protocol:

BLS		
I. Consider oxygen therapy per Respiratory Distress: Airway management PD # 8020		
II. Conduct a pre-arrival "Sepsis Alert" notification to the receiving facility.		
III. Transport		
ALS		
I. Cardiac Monitoring		
II. Establish vascular access. <ul style="list-style-type: none"> • Administer a 500 ml bolus of NS to all patients, repeat as needed until SBP ≥ 90 mmHG. Total amount of fluid should not exceed 2000 ml. Recheck vital signs and lung sounds after every 500 ml bolus. • Give boluses in rapid succession if SBP remains < 90 		
III. If SBP remains <90 mmHg after four (4) fluid boluses: <ul style="list-style-type: none"> • Dopamine 10 mcg/kg/min (Base Hospital order ONLY) or if Dopamine unavailable: <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. NOTE: Monitor SBP while administering/titrating. 		
Cross Reference	Shock	PD #8038
	Decreased Sensorium	PD# 8061