	COUNTY OF SACRAMENTO EMERGENCY MEDICAL SERVICES AGENCY	Document #	8001.21
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	Allergic Reaction / Anaphylaxis	Last Approval Date:	06/13/24
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Signature on File	Signature on File
EMS Medical Director	EMS Administrator

# Purpose:

A. To establish a treatment standard for patients with signs and symptoms of Allergic Reaction and/or Anaphylaxis.

# **Authority:**

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

#### Definition:

- A. **ALLERGIC REACTION:** A local response to an antigen involving skin (rash, hives, edema, nasal congestion, watery eyes, etc.) with normal vital signs.
- B. **ANAPHYLAXIS:** A systemic response to an antigen involving two (2) or more organ systems OR any involvement of the upper and/or lower respiratory systems OR any derangement of vital signs.

### Notes:

- A. **High-Risk Allergic Reaction:** Allergic reaction with a history of Anaphylaxis or significant exposure with worsening symptoms. High-risk allergic reactions should be monitored closely for deterioration and treated as Anaphylaxis for any worsening symptoms.
- B. Any involvement of the respiratory system (wheezing, stridor) or oral/facial edema will be treated as Anaphylaxis. Remember that allergic reactions may deteriorate into Anaphylaxis. Reassess often and be prepared to treat for Anaphylaxis.

#### Protocol:

## **BLS**

#### ALLERGIC REACTION:

- 1. Assess C-A-B
- 2. Remove the sting/injection mechanism.
- 3. Position of comfort, reduce anxiety.
- 4. SPO2 with Supplemental O₂ as necessary to maintain SpO2 ≥ 94%.
- 5. Suction as needed.
- 6. Airway adjuncts as needed.

### **ANAPHYLAXIS:**

- 1. Administer Epinephrine by auto-injector if needed:
  - a. Epinephrine auto-injector 0.3 mg IM for patients ≥ 30 kg. Do not repeat. Record the time of injection.
  - b. Epinephrine auto-injector 0.15 mg IM for patients ≤ 30 kg. Do not repeat. Record the time of injection.

2. Transport and begin therapy simultaneously.

**NOTE:** EMTs who are not currently working for an ALS provider or an associated BLS fire agency are only able to assist the patient with their OWN epinephrine auto-injector.

#### ALS

#### **ALLERGIC REACTION:**

- 1. Consider Diphenhydramine 50mg PO/IM/IV.
- 2. Consider vascular access.
- 3. Cardiac monitoring
- 4. Reassess

## **ANAPHYLAXIS:**

- 1. Epinephrine: 1:1,000
  - a. 0.3 mg IM (Max dose 0.9 mg).
  - b. May repeat in 15 minutes up to three (3) doses if symptoms persist.
- 2. Establish large-bore vascular access with normal saline (NS); titrate to systolic B/P ≥ 90 mmHg.
- 3. Diphenhydramine: 50 mg IV/IO/IM.
- 4. Cardiac and SpO2 monitoring.
- 5. Albuterol: 5 mg (6 ml unit dose) HHN for wheezing. Reassess after the first treatment. It may be repeated as needed for respiratory distress.
- 6. Consider CPAP.
- 7. If no signs of improvement and the patient is in extremis (stridor, persistent hypotension, etc.):
  - a. Epinephrine: 0.01 mg/ml (10mcg/ml)-0.5-2 ml every 2-5 minutes (5-20mcg) IV/IO for stridor and hypotension. Titrate to a minimal systolic B/P > 90 mmHg OR a total of 0.5 mg. is given.
- 8. Inadequate response to Epinephrine and the patient is on Beta Blockers:
  - a. Glucagon 1 mg IV/IO given over one (1) minute. May give IM if no vascular access or delay is anticipated.

Cross Reference: PD# 8020 - Respiratory Distress: Airway Management

PD# 8026 – Respiratory Distress