

**CENTRAL CALIFORNIA**  
**EMERGENCY MEDICAL SERVICES**  
A Division of the Fresno County Department of Public Health

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| Manual   | Emergency Medical Services<br>Administrative Policies and Procedures       | Policy Number 530.22   |
| Subject  | Paramedic Treatment Protocols  | Page 1 of 2  |
| <b>ALLERGIC REACTIONS AND ANAPHYLACTIC SHOCK</b> |  |  |
| References                                       | Title 22, Division 9, Chapter 3.3<br>of the California Code of Regulations | Effective<br>Fresno County:<br>01/15/82<br>Kings County:<br>04/10/89<br>Madera County:<br>06/15/85<br>Tulare County:<br>04/19/05 |

| <b>STANDING ORDERS</b>  |   |
|---|---|
| Airway  | Protect with position, pharyngeal airway, advanced airway if indicated, assist respirations as needed, suction as needed.   |
| Oxygen  | Titrate to maintain SpO <sub>2</sub> > 94%. High flow O <sub>2</sub> if unstable.   |
| Cardiac Monitoring  | Treat rhythm as appropriate.  |
| Remove Allergen   | If appropriate (i.e. bee stinger), apply cold compress.   |
| <b>Mild Allergic Reaction- Stable (Skin rash and Swelling)</b>  |   |
| Diphenhydramine   | 50 mg IV/IM.  |
| Transport   | Per EMS Policy #547.  |
| <b>Severe Reaction/Anaphylaxis<br/>(Hypotension, respiratory distress, airway swelling in the setting of allergen exposure)</b> |   |
| Epinephrine   | 0.4 mg Intramuscular (0.4 ml of 1:1000) ONLY if systemic symptoms of severe reaction present. May repeat dose every 5 minutes to maximum of 3 doses if severe symptoms persist.   |
| IV access   | Saline lock if no hypotension.  |
| Fluid Bolus   | If systolic BP ≤ 90 mmHg, administer 1,000 ml Lactated Ringers or Normal Saline   |
| Epinephrine Drip  | If hypotension and severe symptoms refractory after IM epinephrine x 3 and fluid challenge:<br><br>1 mg Epinephrine in 250 ml NS. Administer <u>only</u> with microdrip (60 gtt/ml) tubing. Start at 2 mcg/min (1 drop every 2 seconds) and titrate carefully at 1 mcg/min increments to target BP >90 mmHg. See drip chart in special considerations. Max dose 8 mcg/min (2 drops per second). |

**STANDING ORDERS – CONTINUED ON NEXT PAGE**

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|----------------------|---|-------------------|
| Approved By          | <b>Daniel J. Lynch</b>  | Revision          |
| EMS Director         | (Signature on File at EMS Agency)                             | <b>04/01/2026</b> |
| EMS Medical Director | <b>Miranda Lewis, MD</b><br>(Signature on File at EMS Agency) |                   |

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|--|-------------------------|
| Subject<br>Paramedic Treatment Protocols - Allergic Reactions and Anaphylactic Shock | Policy<br>Number 530.22 |
|--|-------------------------|

| <b>STANDING ORDERS (CONTINUED)</b> |   |
|------------------------------------|---|
| Nebulized Albuterol                | If wheezing or respiratory distress:<br>2.5 mg/3cc nebulized albuterol sulfate. May repeat x 2. |
| CPAP                               | If severe respiratory distress. Administer with in line albuterol.                              |
| Diphenhydramine                    | 50 mg IV/IM.  |
| Transport                          | Per EMS Policy #547. Begin transport as early as possible after initial stabilizing measures.   |
| Contact Hospital                   | Per EMS Policy #530.02.   |

**SPECIAL CONSIDERATION AND PRIORITIES**

1. Anaphylaxis is a severe allergic reaction characterized by any of the following:
  - Involvement of the skin and/or mucosa (hives, flushing, swollen lips or tongue) with respiratory compromise or hypotension.
  - Hypotension after exposure to a known allergen.
  - Involvement of two or more systems (skin/mucosa, respiratory compromise, gastrointestinal symptoms, hypotension).
2. Treat as an allergic reaction only if history of exposure to allergen (such as bee sting) or other signs of acute allergy – such as hives, itching, erythema, edema, stridor, respiratory distress, wheezing, or hypotension.
3. Initiate transport as soon as possible after initial dose of IM epinephrine for patients with severe allergic reaction. Transport lights/siren all patients in shock or unresponsive to therapy.
4. Be cautious in using Epinephrine in patients over 70 years of age, or patients with history of angina or hypertension. Watch BP, pulse, and monitor closely. Be extremely cautious with dosage calculations and administration.

| <b>EPINEPHRINE DRIP CHART</b>  |                          |
|--|--------------------------|
| Mix 1 mg (1 ml) 1:1,000 Epinephrine in 250 ml of Normal Saline           |                          |
| <b>Use only with microdrip tubing (calibration of 60 drops per 1 ml)</b> |                          |
| 1 mcg drip = 15 gtt/min  | 5 mcg drip = 75 gtt/min  |
| 2 mcg drip = 30 gtt/min  | 6 mcg drip = 90 gtt/min  |
| 3 mcg drip = 45 gtt/min  | 7 mcg drip = 105 gtt/min |
| 4 mcg drip = 60 gtt/min  | 8 mcg drip = 120 gtt/min |