

EL DORADO COUNTY EMS AGENCY

PREHOSPITAL PROTOCOLS

Effective: July 1, 2015

Reviewed: July 2021

Revised: September 2023

Scope: BLS/ALS – Adult/Pediatric

please see signature on file

EMS Agency Medical Director

ALLERGIC REACTION/ANAPHYLAXIS - ADULT

PROTOCOL PROCEDURE: Flow of protocol presumes that condition is continuing. If the patient is in distress, immediate rapid transport is preferred with treatment performed en route.

Basic Life Support

EMT

Remove allergen if applicable and apply ice: If removing a stinger, scrape it out with a dull object, (i.e. credit card).

ABCs / ROUTINE MEDICAL CARE –

- Assess airway and support ventilation with appropriate airway adjuncts as indicated.
- HP-CPR as indicated
- Apply oxygen if pulse oximetry <94% or signs of hypoperfusion or respiratory distress.
- Allow patient to administer their own allergy medications as prescribed by their physician, see **Field Policy: BLS Medication Administration**.
- Place patient in position of comfort. If shock signs or symptoms begin, place patient in a supine position with legs elevated.

LOSOP

EMT working under Local Optional Scope

DIPHENHYDRAMINE (BENADRYL) – 50 mg PO. **Administer only if patient is alert and able to swallow.** (IM or IV should be administered by ALS for patients with more significant symptoms or a decreased LOC.)

FOR PATIENTS in severe distress:

EPI-PEN AUTO-INJECTOR OR EPINEPHRINE 1:1000 (1mg/mL) - 0.5 mg IM (or 0.3mg IM from preloaded EpiPen). Repeat dose in 10 minutes if indicated.

AIRWAY – Consider BVM, SGA and ETCO₂ if indicated.

Advanced Life Support

Paramedic

CARDIAC MONITOR

VASCULAR ACCESS - establish IV/IO. Start a second line if indicated for hypotension and/or severe distress.

NORMAL SALINE – Give 250-1000 mL bolus(es) for hypotension. Repeat as needed.

DIPHENHYDRAMINE (BENADRYL) – 50 mg IM/IO/IV/PO (IV preferable for more symptomatic patients)

NEBULIZED (albuterol) BREATHING TREATMENTS (MAY BE GIVEN PRIOR TO EPI FOR BRONCHOSPASM):

EPINEPHRINE 1:1,000 (1mg/mL) - 0.5 mg IM. Mid-anterolateral thigh preferred. Repeat q 10 minutes as indicated.

FOR WHEEZING (note: wheezing from anaphylaxis also requires IM epi):

ALBUTEROL: 5 mg in 3mL normal saline via nebulizer

If wheezing persists: repeat PRN

or

LEVALBUTEROL: 1.25 mg in 3mL normal saline via nebulizer

For patients in distress, may be given continuously up to 10mg/hr

FOR STRIDOR:

NEBULIZED EPINEPHRINE 1:1,000 (1mg/mL) – 5 mg (5 mL) via nebulizer given over 10 minutes. Repeat q 10 minutes as indicated.

FOR SEVERE HYPOTENSION/AIRWAY COMPROMISE (IMPENDING ARREST):

NORMAL SALINE – 2 IVs/IO wide open if hypotension is present: 1-2 liter bolus as required

INSERT ADVANCED AIRWAY - If airway edema present, intubate as soon as possible.

EPINEPHRINE (Push-Dose):

- **2mL 1:100,000 (20mcg)** IVP every 2-5 minutes, carefully monitoring BP
- May reduce subsequent doses by half (**1mL or 10mcg**) to effect.

See EPINEPHRINE DILUTION field procedure for diluting 1mL of 1:10,000 in 9mL normal saline, to create 10 mL Epi 1:100,000

GLUCAGON – If no response to epinephrine, administer 2-4 mg IV/IO push or IM q 5 minutes as indicated.

NORMAL SALINE – 2 IVs/IO wide open with pressure bags. Aggressive volume expansion with a goal of up to 4 liters.

ALLERGIC REACTION/ANAPHYLAXIS - PEDIATRIC

PROTOCOL PROCEDURE: Flow of protocol presumes that condition is continuing. If the patient is in distress, immediate rapid transport is preferred with treatment performed en route.

Basic Life Support

PSFA and EMT

Remove allergen if applicable and apply ice: If removing a stinger, scrape it out with a dull object, (i.e. credit card).

ABCs / ROUTINE MEDICAL CARE –

- **Assess airway and support ventilation** with appropriate airway adjuncts as indicated.
- HP-CPR as indicated
- Allow patient to administer their own allergy medications as prescribed by their physician, see **Field Policy: BLS Medication Administration**.
- Apply oxygen if pulse oximetry <94% or signs of hypoperfusion or respiratory distress.
- Place patient in position of comfort. If shock signs or symptoms begin, place patient in a supine position with legs elevated.

LOSOP

EMT under Local Optional Scope of Practice

DIPHENHYDRAMINE (BENADRYL) – 1 mg/kg (50 mg max) PO. Administer only if patient is alert and able to swallow. (IM or IV should be administered by ALS for patients with more significant symptoms or a decreased LOC.)

FOR PEDIATRIC PATIENTS IN SEVERE DISTRESS

15-30kg (33-66lbs.): EPI-PEN JR AUTO-INJECTOR OR EPINEPHRINE 1:1000 (1mg/mL) 0.15 mg IM. May repeat every 10 minutes X2 as indicated.

>30kg (66lbs) EPI-PEN AUTO-INJECTOR OR EPINEPHRINE 1:1000 (1mg/mL) 0.3 mg IM. May repeat every 10 minutes X2 as indicated.

ALS

Paramedic

CARDIAC MONITOR**VASCULAR ACCESS** – establish an IV/IO**NORMAL SALINE** - 20 mL/kg bolus(es) for hypotension, repeat as indicated**NEBULIZED BREATHING TREATMENT(S)** (MAY BE GIVEN PRIOR TO EPI FOR BRONCHOSPASM):**DIPHENHYDRAMINE (BENADRYL)** – 1 mg/kg IM/IO/IV/PO**EPINEPHRINE 1:1,000 (1mg/mL) - 0.01 mg/kg IM** (Max. 0.5 mg). Repeat q 10 minutes X2 as indicated. Mid-anterolateral thigh is preferred.*FOR WHEEZING (note wheezing from anaphylaxis also requires IM epi):***ALBUTEROL: 5 mg in 3mL normal saline via nebulizer**

If wheezing persists: repeat PRN

or

LEVALBUTEROL: 1.25 mg in 3 mL normal saline via nebulizer.

If severe distress persists repeat at 0.5 mg/kg hr to a maximum of 10 mg/hr.

*FOR STRIDOR:***EPINEPHRINE NEB 1:1,000 – 0.5 mL/kg (Up to Max. single dose of 5 mg (5 mL))** by nebulizer over 10 minutes.

- Dilute with NS to 5mL for patients 10 kg or less.
- May repeat q 10 minutes x 2 as indicated for ongoing stridor.

*FOR HYPOTENSION/AIRWAY COMPROMISE (IMPENDING ARREST):***NORMAL SALINE** – 20 mL/kg boluses, repeated as indicated.**BVM or INSERT SGA** as indicated.**EPINEPHRINE (Push-Dose):**

- **0.1mL/kg 1:100,000** every 1-2 minutes, carefully monitoring BP
- May reduce subsequent doses by half (**0.05mL/kg**) to effect.

See EPINEPHRINE DILUTION field procedure for diluting 1mL of 1:10,000 in 9mL normal saline to create 10 mL Epi 1:100,000

Age-appropriate SBP:

- Neonate = **50-60** mmHg
- Infant = **60-70** mmHg
- Child = **70-80** mmHg
- Adolescent = **>90** (same as adult)