

EL DORADO COUNTY EMS AGENCY

PREHOSPITAL PROTOCOLS

Effective: July 1, 2015

Reviewed: July 2021

Revised: May 2022

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 albuterol as necessary

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.

IV “Push-Dose” EPINEPHRINE

- Mix 1 mL of **Epi 1:10,000 (0.1mg/mL)** with 9 mL of NaCl 0.9% for a concentration of 1:100,000 (0.01mg/mL).
- Label syringe “**epi 10 mcg/mL**”.
- Administer 0.5-1 mL (5-10mcg) IVP every 1-5 minutes as needed.
- Titrate to SBP>90.

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

FOR ANAPHYLAXIS CAUSED CARDIAC ARREST: REFER TO APPROPRIATE ADULT CARDIAC ARREST

Reference: Routine Medical Care, BLS Medication Administration, Optional Skills EMT, Benadryl, EpiPen & EpiPen Jr. Auto Injector, Epinephrine, Albuterol, Atrovent, Glucagon, Pulseless Arrest

PROTOCOL

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.

Reference: Routine Medical Care, BLS Medication Administration, Optional Skills EMT, Benadryl, EpiPen & EpiPen Jr. Auto Injector, Epinephrine, Albuterol, Atrovent, Glucagon, Pulseless Arrest

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 albuterol as necessary

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.

IV “PUSH-DOSE” EPINEPHRINE for children 10kg or less:

(Note: if child >10Kg, use the adult preparation administered at the lower dose of 0.5ml)

- Into a sterile 10cc syringe, draw up the “code dose” of **0.01 mg/kg** -- for the patient's weight -- from a **1:10,000 (0.1mg/mL)** 10cc epinephrine syringe. (note: a 10kg child will require 1mL of the 1:10,000 epinephrine)
- In the same sterile 10cc syringe, add the necessary quantity of NaCl 0.9% to fill the

syringe to the total 10 mL.

- Label the syringe with "epi" and the calculated concentration in mcg/mL.
(note: A 10kg child will yield a concentration of "10mcg/ml" - which is also the same concentration as the adult preparation above)
- Administer 0.5 mL IV every 1-5 minutes as needed (which is 0.5 mcg/kg).
Titrate to age-appropriate SBP.