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EMS Agency Medical Director
Effective: July 1, 2015
Revised: March 2025
Scope: BLS/ALS – Adult/Pediatric

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:

AUTO-INJECTOR

0.3mg IM (from prefilled EpiPen, Adrenaclick, etc.) Repeat dose in 10 minutes if indicated.

AIRWAY – Consider BVM, 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.): Prefilled Pediatric AUTO-INJECTOR 0.15 mg IM.
May repeat every 10 minutes X2 as indicated.

>30kg (66lbs) Prefilled AUTO-INJECTOR 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 1:100,000 (push dose):	
<20 kg **0.1mL/kg** (1 mcg/kg) • Slow IVP, every 2-5 min, titrated to effect. • May reduce to 0.05mL/kg • Push **slowly** and carefully monitor BP.	>20 kg **2 mL** (20 mcg) • Slow IVP, every 2-5 min, titrated to effect. • May reduce to 1mL • Push **slowly** and carefully monitor BP.
Age-appropriate SBP: • Neonate = **50-60** mmHg • Infant = **60-70** mmHg • Child = **70-80** mmHg • Adolescent = **>90** (same as adult) *See EPINEPHRINE DILUTION field procedure for diluting 1mL of 1:10,000 in 9mL normal saline to create 10 mL Epi 1:100,000*	