



Oakland County Medical Control Authority
GENERAL TREATMENT PROTOCOLS
ANAPHYLAXIS/ALLERGIC REACTION

Initial Date: 8/31/2023
Revised Date:

Section 1-6

Anaphylaxis/Allergic Reaction

A. Initial

- a. Follow 1.1 General Pre-Hospital Care-Treatment Protocol.
b. Pediatric patients (< 14 years of age) utilize MI MEDIC cards for appropriate medication dosage.
c. Ensure ALS response.
d. Determine if anaphylaxis/severe allergic reaction (wheezing and/or hypotension) or an allergic reaction (itching, hives).
e. Determine substance or source of exposure, remove patient from source if known and able.

B. Anaphylaxis/Severe Allergic reaction

- a. Assist patient in use of their own prescribed epinephrine auto-injector, if available.
b. Administer epinephrine auto-Injector IM.



MCA Approval of epinephrine auto-injector IM
MFR
MCAs will be responsible for maintaining a roster of the agencies choosing to participate and will submit roster to MDHHS







- 1. Contact Medical Control if child appears to weigh less than 10 kg (approx. 20 lbs.), prior to epinephrine administration, if possible.
2. Administer pediatric epinephrine dose auto-injector IM if child weighs between 10-30 kg (approximately 20-60 lbs.).
3. Administer epinephrine auto-injector IM for adults and children weighing greater than 30 kg (approximately 60 lbs.).
4. May repeat epinephrine auto-injector IM one time after 3-5 minutes if the patient remains hypotensive, and auto-injector available.




- c. Administer epinephrine IM (per MCA selection may be BLS or MFR skill)
NOTE: BLS not carrying epinephrine auto-injector MUST participate in draw up epinephrine.






MCA Approval of draw up epinephrine.
MFR
BLS
Personnel must complete MCA approved training prior to participating in draw up epinephrine.
MCAs will be responsible for maintaining a roster of the agencies choosing to participate and will submit roster to MDHHS.


-   1. Contact Medical Control if child appears to weigh less than 10 kg (approx. 20 lbs.), prior to **epinephrine** administration, if possible.
-  2. Administer 0.15 mg (0.15 mL) of **epinephrine** IM (1mg/mL) if child weighs between 10-30 kg (approx. 20-60 lbs.)
- 3. Administer 0.3 mg (0.3 mL) of **epinephrine** IM (1mg/mL) for child weighing over 30 kg (approx. 60 lbs.) or adult patients.
- 4. May repeat **epinephrine** IM administration one time after 3-5 minutes if the patient remains hypotensive.
- 5. Maximum of 2 doses total of epinephrine (prescribed auto-injector, EMS supplied auto-injector, draw up epinephrine combined).
-  d. If wheezing and/or airway constriction, administer **albuterol** 2.5 mg/3mL **NS** nebulized (Per MCA selection may be EMT skill) per **9.1 Medication Administration-Medication Protocol**.

Nebulized **albuterol** administration per
 MCA selection
 EMT

-  1. If wheezing and/or airway constriction continues, administer nebulized **albuterol** 2.5 mg/3 ml **NS** nebulized and **ipratropium** 500 mcg/2.5 mL **NS** per **9.1 Medication Administration-Medication Protocol** (Per MCA selection may be Specialist skill).

Nebulized **albuterol/ipratropium**
 administration per MCA selection
 Specialist

-  e. For patients with hypotension administer **NS** or **LR** IV/IO fluid bolus (refer to **7.23 Vascular Access and IV Fluid Therapy-Procedure Protocol**) refer to **1.5 Shock-Treatment Protocol**.
 - 1. Adults: up to 1 liter, wide open.
 -  2. Pediatrics: 20 mL/kg, based on signs/symptoms of shock.
 - 3. Fluid should be slowed to KVO when SBP greater than 90 mm/Hg.
-  f. Hypotensive patients should receive additional IV/IO fluid boluses, as indicated by hemodynamic state. (Consider preparing **epi** push dose while administering second bolus).
 - 1. Adults: repeat IV/IO fluid bolus to a maximum of 2 liters.
 -  2. Pediatrics: repeat dose of 20 mL/kg to a maximum of 40 ml/kg
 - 3. Monitor for pulmonary edema.
 -  4. If pulmonary edema presents, stop fluids and contact Medical Control for direction.

-  g. If hypotension persists/is unresponsive to fluid bolus, or severe respiratory distress is unresponsive to nebulized treatment, administer push dose **epinephrine IV/IO**.

Prepare (**epinephrine 10 mcg/mL**) by combining 1mL of 1mg/10mL **epinephrine** in 9mL **NS**

1. Adults:

- i. Administer 20 mcg (2 mL **epinephrine 10 mcg/mL**) IV/IO
- ii. Repeat every 3-5 minutes
- iii. Titrate SBP greater than 90 mm/Hg.



2. Pediatrics:

- i. Administer 1 mcg/kg (0.1 mL **epinephrine 10 mcg/mL**) IV/IO
- ii. Maximum dose 10 mcg (1 mL)
- iii. Repeat every 3-5 minutes


- C. If patient is symptomatic of an allergic reaction but not in a severe allergic reaction or anaphylaxis **OR** after **epinephrine** administration:

-  a. Administer **diphenhydramine**.


1. Adult 50 mg IM or IV/IO




2. Pediatric 1 mg/kg IM/IV/IO (maximum dose 50 mg).

-  b. If wheezing, and **albuterol** not already administered, administer **albuterol 2.5 mg/3mL NS** nebulized (Per MCA selection may be EMT skill) per **9.1 Medication Administration-Medication Protocol**.

Nebulized **albuterol** administration per
MCA Selection
 EMT

-  1. If wheezing continues, administer nebulized **albuterol 2.5 mg/3 mL NS** and **ipratropium 500 mcg/2.5 mL NS** per **9.1 Medication Administration-Medication Protocol** (Per MCA selection may be Specialist skill).

Nebulized **albuterol/ipratropium**
administration per MCA selection
 Specialist

-  c. Administer **prednisone** tablet 50 mg PO to adults and children > 6 years of age (if available per MCA selection).

Additional Medication Option:

Prednisone 50 mg tablet PO
(Adults and Children > 6 y/o)




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- i. If **prednisone** is not available, patient is ≤ 6 years of age, or patient is unable to receive medication PO, administer **methylprednisolone** IV/IO/IM:
 - a. Adults: 125 mg
 -  b. Pediatrics: 2mg/kg (max 125 mg)



D. Patients unresponsive to treatment, contact Medical Control.

Medication Reference

Albuterol

Diphenhydramine

Epinephrine

Ipratropium

Methylprednisolone

Prednisone

Protocol Source/Reference: Michigan 1.6 Anaphylaxis/Allergic Reaction; Version 8/11/23.