Anaphylaxis/Allergic Reaction

A. Initial
   a. Follow **General Pre-Hospital Care-Treatment Protocol**.
   b. Pediatric patients (< 14 years of age) utilize MI MEDIC cards for appropriate medication dosage. When unavailable utilize pediatric dosing listed within protocol.
   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. Maxiumum 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 **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 **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 **Vascular Access and IV Fluid Therapy-Procedure Protocol**) refer to **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 e**pinephrine** 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 **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 **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)

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 Protocols
Albuterol
Diphenhydramine
Epinephrine
Ipratropium
Methylprednisolone
Prednisone