



**HEMS MCA**  
**OBSTETRICS AND PEDIATRICS**  
**PEDIATRIC RESPIRATORY DISTRESS, FAILURE, OR ARREST**



Initial Date: 3/31/2025  
Revised Date: 4/2/2025

Section 4-5



***Pediatric Respiratory Distress, Failure or Arrest***

1. Follow **General Pre-hospital Care-Treatment Protocol**.
2. Pediatric patients ( $\leq 14$  years) utilize MI MEDIC cards for appropriate medication dosage. When unavailable utilize pediatric dosing listed within protocol
3. Patient in whom cardiac or respiratory arrest appears imminent, refer to **Pediatric Crashing Patient/Impending Arrest Protocol**.
4. Assess the patient's airway
  - A. If unable to ventilate patient after airway repositioning refer to **Foreign Body Airway Obstruction-Treatment Protocol** and/or **Airway Management-Procedure Protocol**
  - B. Consider anaphylaxis refer to **Allergic Reaction/Anaphylaxis-Treatment Protocol**
5. Allow the patient a position of comfort that also maintains an open airway.
6. Titrate SpO<sub>2</sub> to 94%
  - A. Have a parent assist with oxygen via blow by or mask support.
7. Airway should be managed by least invasive method possible.
8. Suction secretions if needed.
-  9. Consider CPAP if appropriate size available, follow **CPAP-Procedure Protocol**
10. While transport should not be delayed, stabilizing treatment should be initiated prior to moving the patient to the ambulance when possible.
-  11. Attempt vascular access only if necessary for patient treatment.

Suspected Bronchospasm (Wheezing):


-  1. Assist the patient in using their own **albuterol** Inhaler, if available and medication has not expired and is prescribed to patient.
-  2. 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

-  3. Consider CPAP if appropriate size available, follow **CPAP- Procedure Protocol**
-  4. In cases of respiratory failure administer **epinephrine auto-injector**

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.

-  A. If child appears to weigh less than 10 kg (approximately 20 lbs.), contact medical control prior to epinephrine if possible.
- B. If child weighs between 10-30 kg (approximately 20-60 lbs.), administer **pediatric epinephrine auto-injector** IM.
- C. Child weighing greater than 30 kg (approximately 60 lbs.), administer


**HEMS MCA  
OBSTETRICS AND PEDIATRICS**

**PEDIATRIC RESPIRATORY DISTRESS, FAILURE, OR ARREST**

Initial Date: 3/31/2025  
Revised Date: 4/2/2025

Section 4-5

**epinephrine auto-injector IM.**

-  5. In cases of respiratory failure administer **epinephrine** 1 mg/ml 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.



- A. If child appears to weigh less than 10 kg (approximately 20 lbs.), contact medical control prior to epinephrine if possible.
- B. If child weighs between 10-30 kg (approximately 60 lbs.), administer **epinephrine** (concentration of 1mg/1mL) 0.15 mg (0.15mL) IM
- C. Child weighing 30 kg or greater; administer **epinephrine** (concentration of 1mg/1mL) 0.3 mg (0.3 mL) IM



6. Per MCA selection, administer **prednisone** 50 mg PO to children > 6 years of age (if available per MCA selection) .

**Additional Medication Option:**

☒ **Prednisone** 50 mg tablet PO  
(Children > 6 y/o)

- A. If prednisone is not available, patient is  $\leq$  6 years of age, or patient is unable to receive medication PO, administer **methylprednisolone** IV/IO/IM:
  - i. Pediatrics: 2mg/kg

**Stridor/Suspected Croup:**

- 1. Croup is most common in children 6 months to 6 years of age
- 2. Commonly associated with recent upper airway infection or fever
- 3. If foreign body is suspected, and unable to be removed contact Medical Control prior to administration of nebulized **racepinephrine/epinephrine** See **Foreign Body Airway Obstruction-Treatment Protocol**
- 4. Consider humidified oxygen
- 5. If patient presents with stridor at rest without suspected airway obstruction administer nebulized **epinephrine** per MCA selection (Medical Control contact not required):



**HEMS MCA**  
**OBSTETRICS AND PEDIATRICS**  
**PEDIATRIC RESPIRATORY DISTRESS, FAILURE, OR ARREST**

Initial Date: 3/31/2025  
Revised Date: 4/2/2025

Section 4-5

**MCA Selection**



☒ **Racpinephrine 2.25%** inhalation solution via nebulizer

Administer by placing 0.5 mL of **Racpinephrine 2.25%** inhalation solution in nebulizer and dilute with 3 mL of normal saline.

☐ **Epinephrine 5 mg (1mg/1ml)** nebulized

6. Do not delay transport.

Respiratory Failure or Arrest:

1. Ventilate the patient using an appropriately sized BVM with supplemental oxygen.
  - A. Chest rise is the best indicator of successful ventilation.
  - B. Ventilate at a rate appropriate for the patient:
    - i. Infant: 30 breaths per minute
    - ii. Child: 20 breaths per minute
  -  C. Utilize capnography per **End Tidal Carbon Dioxide Monitoring-Procedure Protocol** to maintain end tidal CO<sub>2</sub> 35-45 mm Hg.
2. Bag Valve Mask is the preferred method of ventilation for kids under 8 years old.
  - A. When unable to ventilate with BVM and basic airway adjuncts, consider advanced airway see **Airway Management-Procedure Protocol**
3. If opioid overdose is suspected, administer **naloxone** according to MI-MEDIC cards. If MI-MEDIC is unavailable, administer **naloxone** per **Opioid Overdose Treatment and Prevention-Treatment Protocol**.
-  4. Monitor EKG and refer to **Pediatric Crashing Patient/Impending Arrest-Treatment Protocol** or appropriate cardiac protocol as required.

Medication Protocols

Albuterol

Epinephrine

Methylprednisolone

Prednisone

Racpinephrine

Protocol Source/Reference: Michigan 4.6 Pediatric Respiratory Distress, Failure, or Arrest; Version 5/24/23.