Bureau of Emergency Preparedness, EMS and Systems of Care

Michigan OBSTETRICS AND PEDIATRICS

PEDIATRIC RESPIRATORY DISTRESS, FAILURE, OR ARREST

Initial Date: 10/25/2017

Revised Date: 05/24/2023

Section 4-5

Pediatric Respiratory Distress, Failure or Arrest

- 1. Follow General Pre-hospital Care-Treatment Protocol.
- 2. Pediatric patients (≤ 14 years) utilize MI MEDIC cards for appropriate medication dosage. When unavailable utilize pediatric dosing listed within protocol
- 3. 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
- 4. Allow the patient a position of comfort that also maintains an open airway.
- 5. Titrate SpO2 to 94%
 - A. Have a parent assist with oxygen via blow by or mask support.
- 6. Airway should be managed by least invasive method possible.
- 7. Suction secretions if needed.
- 🐯 8. Consider CPAP if appropriate size available, follow CPAP-Procedure Protocol
 - 9. Do not delay transport for interventions.
- (S) 10. 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.
- S 2. Administer albuterol 2.5 mg/3ml NS nebulized (Per MCA selection may be EMT skill) per Medication Administration-Medication Protocol

3. Consider CPAP if appropriate size available, follow CPAP- Procedure Protocol

4. In cases of respiratory failure administer epinephrine auto-injector

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 **epinephrine auto-injector** IM.
- 5. In cases or respiratory failure administer epinephrine 1 mg/ml IM (per MCA selection may be BLS or MFR skill).

MCA Name: HEMS, Inc. (WW/DR) MCA Board Approval Date: 12/14/2023 MCA Implementation Date: 3/1/2024 MDHHS Approved: 5/24/2023



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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.

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- 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 < 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):

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MCA Selection

☑ Racepinephrine 2.25% inhalation solution via nebulizer

Administer by placing 0.5 mL of **Racepinephrine** 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
 - S C. Utilize capnography per End Tidal Carbon Dioxide Monitoring-Procedure Protocol to maintain end tidal CO2 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

Racepinephrine

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