

Asthma / Wheezing (Pediatric)

CFR AND ALL PROVIDER LEVELS

1. ABCs and vital signs.
 - a. If patient exhibits signs of imminent respiratory failure, refer to the Respiratory Distress / Failure / Arrest (Pediatric) protocol.
2. Airway management
3. Administer oxygen.
4. Limit the patient's physical activity.
5. Place the patient in a position of comfort.
6. If the patient is prescribed albuterol (either by inhaler or nebulizer), and they have their albuterol with them, assist them in taking their albuterol (if trained to do so).

● CFR STOP

EMT

7. Assess the following prior to administration of the first nebulized bronchodilator treatment:
 - a. Vital signs
 - b. Patient's ability to speak in complete sentences
 - c. Accessory muscle use
8. Administer Albuterol Sulfate 0.083%, in one (1) unit dose or 3 ml via nebulizer at a flow rate that will deliver the solution over 5 to 15 minutes.
 - a. Do not delay transport to complete medication administration.
9. Begin transport.
10. After beginning transport; albuterol Sulfate 0.083%, in one (1) unit dose or 3 ml via nebulizer at a flow rate that will deliver the solution over 5 to 15 minutes, may be repeated twice for a total of three (3) doses if necessary.
11. For patients in severe respiratory distress or shock:
 - a. Request ALS assistance.
 - b. Administer Epinephrine (one dose only) IM:
 - i. For patients 9 years of age and older or weighing more than 30 kg (66 lbs).
 1. Adult Epinephrine (0.3 mg) IM.
 - ii. For patients younger than 9 years of age or weighing less than 30 kg (66 lbs).
 1. Pediatric Epinephrine (0.15 mg) IM.

● EMT STOP

Paramedic

12. Administer Ipratropium Bromide 0.02%, by nebulizer, in conjunction with the first three (3) doses of Albuterol Sulfate. Use the following doses of Ipratropium Bromide:
 - a. For children 6 years of age or older: one-unit dose of 2.5 ml.
 - b. For children under 6 years of age: ½ unit dose of 2.5 ml (1.25 ml).
13. In patients with severe respiratory distress, respiratory failure, and/or decreased breath sounds:
 - a. If not already administered, give Epinephrine 0.01 mg/kg (0.01 ml/kg of a 1:1,000 solution), IM. Maximum dose is 0.3 mg.
14. Continue administration of Albuterol Sulfate 0.083% (one-unit dose of 3 ml) by nebulizer until the patient shows improvement. Maximum total of three (3) doses.

15. For patients over 2 years of age with severe respiratory distress, administer Dexamethasone 10 mg IV/IM.

● **Paramedic STOP**

Medical Control Options

EMT:

1. Administer a second dose of Epinephrine IM.
 - a. Patients 9 years of age and older or weighing more than 30 kg (66 lbs), use adult Epinephrine (0.3 mg).
 - b. Patients younger than 9 years of age or weighing less than 30 kg (66 lbs) use pediatric Epinephrine (0.15 mg).

Paramedic:

2. **During transport, or if transport is delayed; if the patient develops or remains in severe respiratory distress or respiratory failure, and/or continues to have decreased breath sounds:**
 - a. Administer or repeat Epinephrine 0.01 mg/kg (0.01 ml/kg of a 1:1,000 solution), IM. Maximum dose is 0.3 mg.
 - b. Administer additional doses of albuterol 0.083%, in one (1) unit dose or 3 ml via nebulizer at a flow rate that will deliver the solution over 5 to 15 minutes.
 - c. Intravascular access. (Attempt IV no more than twice)
 - d. For patients less than 2 years old: Administer Dexamethasone 0.6 mg/kg IV/IM.

Key Points / Considerations

1. Patients who require oxygen should receive high concentration oxygen via the mask that best fits around the mouth and nose, preferably a non-rebreather mask.
 - a. Humidified oxygen is preferred.
 - b. If a mask is not tolerated, then “blow-by” oxygen is acceptable.
 - c. High concentration oxygen should always be used in pediatric patients.
 - i. There are no contraindications to the use of high concentration oxygen.
 - d. If assisted ventilations via a mask are required, it must be ensured that the mask does not cover the eyes.
2. Patients who need assisted ventilations may present with any one of the following:
 - i. On-going hypoxia
 - ii. Inability to adequately protect their airway
 - iii. And/or exhibiting signs of inadequate respiration
 - b. Utilize one of the following methods:
 - i. Pocket mask with supplemental oxygen set at 10-15 liters/minute.
 - ii. Bag-valve-mask and reservoir with supplemental oxygen set at 10-15 liters/minute.
3. Albuterol Sulfate and Ipratropium Bromide shall be mixed and administered simultaneously, for a maximum of three doses.
4. Do not delay transport to administer additional nebulized bronchodilator nebulizer treatments.
5. Severe respiratory distress in a child is characterized by markedly increased respiratory effort, i.e., severe agitation, dyspnea, tripod position, and suprasternal and substernal retractions.

6. A silent chest is an ominous sign that indicates respiratory failure and arrest are imminent.
7. Refer all weight-based fluids/medications to a Length Based Dosing Device.