

Asthma / COPD / Wheezing (Adult)**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 / Acute Pulmonary Edema (Adult) 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, 0.3 mg (one dose only) IM.
12. Initiate CPAP if available and indicated, as authorized by the service medical director (see Appendix P).

● EMT STOP**Paramedic**

13. Administer Ipratropium Bromide 0.02% (1-unit dose of 2.5 ml), by nebulizer, in conjunction with the first three (3) doses of Albuterol Sulfate.
14. In patients with severe respiratory distress, respiratory failure, and/or decreased breath sounds:
 - a. If not already administered, administer Epinephrine, 0.3 mg IM.
15. Continue administration of Albuterol Sulfate 0.083% (one-unit dose of 3 ml) by nebulizer until the patient shows improvement.

16. For patients with severe respiratory distress:
 - a. Intravascular access.
 - b. In patients with a history of dysrhythmia or cardiac disease: Begin cardiac monitoring.
 - c. In patients whose symptoms are NOT suggestive of chronic obstructive pulmonary disease:
 - i. Administer Magnesium Sulfate, 2 gm, IV infusion, diluted in 50-100 ml of Normal Saline (0.9% NS), over 10-20 minutes.
17. For patients with severe respiratory distress, administer one parenteral steroid medication:
 - a. For Adult patients:
 - i. Methylprednisolone 125 mg IV/IM.
OR
 - ii. Dexamethasone, 12 mg IV/IM.

● Paramedic STOP

Medical Control Options

EMT & Paramedic:

1. Administer a second dose of Epinephrine 0.3 mg (0.3 ml of a 1:1,000 solution), IM if available and indicated.

Key Points / Considerations

1. Patients who require supplemental oxygen should receive high concentration oxygen via a non-rebreather mask set at 10-15 liters/minute:
 - a. The reservoir must remain at least 1/3 full following inspiration.
 - b. If a mask is not tolerated by the patient, a nasal cannula set at 6 liters/minute should be used and such use properly documented.
 - c. There is no reason to withhold high concentration of oxygen when required in adult patients.
 - d. Patients who are chronically maintained on oxygen and do not require high concentration oxygen shall be administered oxygen at their prescribed rate of flow.
2. Patients who need assisted ventilation 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. Epinephrine should be used with caution in patients with COPD.
6. A silent chest is an ominous sign that indicates respiratory failure and arrest are imminent.