



Asthma - COPD

Adult Medical

Austin County
EMS Protocol & Guideline

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Overview: Chronic Obstructive Pulmonary Disease (COPD) and Asthma treatments are very similar, but the etiology can be very different. COPD is typically a volume “IN” issue with reduced volume due to loss of elasticity or chronic mucus production and Asthma is typically a volume “OUT” issue with air trapping due to bronchial constriction

Definition: Any patient presenting with complaint/symptom associated with shortness of breath (SOB) and/or hypoxia. Signs and symptoms include, but not limited to; decreased tidal volume and minute volume, wheezing, absent lung sounds and decreased mental status to unconscious. Differential Diagnosis should be driven by patient history differentiating between COPD and asthma.

EMT

- Airway/Oxygen appropriate for condition
- Acquire 12 lead
- ETCO2 monitoring
- **Albuterol** 2.5 mg nebulized, may repeat as needed
- **A&A** - Mix 1 **Albuterol** & 1 **Ipratropium Bromide** as a single nebulized medication for mild dyspnea with a SPO2 < 92 %
- **CPAP** with inline **A&A** nebulizer for moderate to severe dyspnea
- **If using a BVM Attach PEEP**

AEMT

- Establish IV of Normal Saline, Fluid challenge up to 20 ml/kg, repeat PRN

Paramedic

- **Dexamethasone** 4 mg IVP & 4 mg nebulized with **Albuterol** 2.5 mgs
 - **Methylprednisolone** 125 mg IVP (if Dexamethasone is unavailable)
- **Terbutaline** 0.25 mg SQ injection
- **Epinephrine** 1:1,000 – 0.3 mg IM
- **Magnesium Sulfate** 2g IV/IO over 10 mins
- In extreme cases refractory to CPAP with impending Respiratory Failure, Hypoxia, Hypercarbia and/or Altered Mental Status refer to **RSI** protocol

PEARLS

- Albuterol is preferred initial treatment, however, in significant presentations A & A Treatment may be utilized as an initial treatment
- Monitor all patients carefully for signs of tachycardia, hypertension, or chest pain, especially those patients with history of Congestive Heart Failure (CHF) and Coronary Artery Disease (CAD)
- Nebulization should be continued post intubation with BVM and nebulizer attachment
- RSI should only be utilized if the patient is unable to maintain airway, oxygenation and/or if the patient’s anticipated progression is respiratory failure.
- Possible indicators/considerations for RSI are patients who are unable to maintain head in the erect position, patient reports they are tired; patient has been intubated 1 or more times in the past with similar presentation, inability to raise SPO2 to acceptable level, and/or decreasing SPO2 despite effective efforts to oxygenate.
- Initial nebulized treatment may be A&A if patient received albuterol just prior to arrival.