**ADULT PROTOCOL**

**RESPIRATORY DISTRESS / ASTHMA / COPD**

**UNIVERSAL PATIENT CARE PROTOCOL**

**OXYGEN**

- Treat with aerosol DUONEB (ALBUTEROL / IPRATROPIUM)
- Oxygen as needed

**12 LEAD EKG PROCEDURE**

- 1st Contact to EKG and Transmission < 10 Min

**IV / IO PROCEDURE**

**AIRWAY / BREATHING**

- **Mild – Symptoms**
  - Treat with aerosol DUONEB (ALBUTEROL / IPRATROPIUM)
  - Oxygen as needed
  - EMT use only with ONLINE Medical Control

- **Moderate / Severe Distress**
  - CAPNOGRAPHY PROCEDURE
  - Tachypnea, wheezing accessory muscle use, difficulty speaking
  - Treat with aerosol DUONEB (ALBUTEROL / IPRATROPIUM)
  - Oxygen as needed
  - Continuous pulse-ox
  - Repeat aerosols as needed
  - EMT use only with ONLINE Medical Control

**CIRCULATION / SHOCK**

- **Severe Distress with STRIDOR**
  - CAPNOGRAPHY PROCEDURE
  - Tachypnea, bradypnea, stridor, accessory muscle use, difficulty speaking, CO₂ narcosis
  - Treat with aerosol RACEMIC EPINEPHRINE Unit Dose (2.25% 0.5ml) mixed in 3ml of Normal Saline Nebulized x1 Dose
  - Hypotension
  - Untreated Vomiting

**CARDCIO**

- Evidence of Poor Air Exchange
  - SEVERE ASTHMA / COPD
  - EPINEPHrine 1 mg / ml (1:1000)
  - 0.3 – 0.5 mg IM

**MEDICAL**

- Evidence of Poor Air Exchange
  - SEVERE ASTHMA / COPD
  - EPINEPHrine 1 mg / ml (1:1000)
  - 0.3 – 0.5 mg IM

**EMT Intervention**

- **methylPREDNISolone** (SOLU – MEDROL)
  - 125 mg IV / IO

**AEMT Intervention**

- **If Failed EPINEPHrine**
  - Consider MAGNESIUM SULFATE
  - 2 Grams IV / IO SLOW

**PARAMEDIC Intervention**

- **If Failed EPINEPHrine**
  - Consider MAGNESIUM SULFATE
  - 2 Grams IV / IO SLOW

**Online Medical Control**

**BE PREPARED for Emergency Airway**

- NEEDLE CRICOTHYROTOMY OR CRICOTHYROTOMY KIT

**If Patient Occludes Airway**

- Must Have Med Command Training / Approval

**TRANSPORT**

- to appropriate facility
- CONTACT receiving facility
- CONSULT Medical Direction where indicated
- APPROPRIATE transfer of care
### RespiRatory Distress / Asthma / COPD

<table>
<thead>
<tr>
<th>HISTORY</th>
<th>SIGNS AND SYMPTOMS</th>
<th>DIFFERENTIAL DIAGNOSIS</th>
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</thead>
<tbody>
<tr>
<td>• Asthma; COPD -- chronic bronchitis, emphysema, congestive heart failure</td>
<td>• Shortness of breath</td>
<td>• Asthma</td>
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<tr>
<td>• Home treatment (oxygen, nebulizer)</td>
<td>• Pursed lip breathing</td>
<td>• Anaphylaxis</td>
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<tr>
<td>• Medications (Theophylline, steroids, inhalers)</td>
<td>• Decreased ability to speak</td>
<td>• Astipation</td>
</tr>
<tr>
<td>• Toxic exposure, smoke inhalation</td>
<td>• Increased respiratory rate and effort</td>
<td>• COPD (emphysema, bronchitis)</td>
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<td></td>
<td>• Wheezing, rhonchi</td>
<td>• Pleural effusion</td>
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<td></td>
<td>• Use of accessory muscles</td>
<td>• Pneumonia</td>
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<td></td>
<td>• Fever, cough</td>
<td>• Pulmonary embolus</td>
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<tr>
<td></td>
<td>• Tachycardia</td>
<td>• Pneumothorax</td>
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<td></td>
<td>• Tripod position</td>
<td>• Cardiac (MI or CHF)</td>
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<td></td>
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<td>• Pericardial tamponade</td>
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<td></td>
<td></td>
<td>• Hyperventilation</td>
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<td></td>
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<td>• Inhaled toxin (Carbon monoxide, etc.)</td>
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</tbody>
</table>

CPAP should be used as a last resort in asthmatic / COPD patients whom are HYPOXEMIC. Prepare to intubate and ventilate.

SEVERE ASTHMA / STATUS ASTHMATICUS patients not moving air or is not moving the mist from an aerosol treatment give EPINEPHrine (Adrenaline) 1 mg / ml (1:1000) 0.3 - 0.5 mg IM.

### KEY POINTS

- **Exam:** Mental Status, HEENT, Skin, Neck, Heart, Lungs, Abdomen, Extremities, Neuro
- **Status asthmaticus** - severe prolonged asthma attack unresponsive to therapy - life threatening!
- If the patient is over 50 years of age, has a history of cardiac disease, or if the patient’s heart rate is >120 EPINEPHrine (Adrenaline) may precipitate cardiac ischemia.
- Monitor pulse oximetry continuously during treatment and transport.
- A silent chest in respiratory distress is a pre - respiratory arrest sign.
- Be alert for respiratory depression in COPD patients on prolonged high flow oxygen administration.
- DO NOT withhold oxygen from hypoxic patients.
- If Albuterol (Proventil) and / or Ipratropium (Atrovent) is given, monitor the patient’s cardiac rhythm and initiate IV.
- Patient with known COPD, asthma and a history of steroid use should receive IV MethylPREDNISolone (SoluMedrol). Use with caution in diabetics (hyperglycemia), GI bleeds, and febrile patients (sepsis / infections).
- Assure sufficient expiration time when ventilating COPD or asthma patients to prevent breath stacking and CO2 elimination.
- Albuterol (Proventil) and Ipratropium (Atrovent) can be given down an ETT or Tracheotomy during ventilation if there is evidence of bronchoconstriction.