Asthma/COPD

Signs and Symptoms

- Shortness of breath, difficulty breathing
- Increased work of breathing
- Accessory muscle use
- Prolonged exhalation, pursed lip breathing
- Bilateral wheezing, rhonchi, stridor
- Pallor and/or cyanosis
- Cannot speak full sentences
- Intercostal retractions
- Tachycardia
- Bradycardia is an ominous sign

History

- Asthma or reactive airway disease
- Allergic reaction see NC # 2
- COPD
- CHF
- Recent diagnosis of pneumonia, bronchiolitis, RSV
- Medications, bronchodilators, steroids
- Toxic exposure, smoke inhalation

Differential

- Anaphylaxis
- CHF
- COPD, bronchitis
- Toxic exposure
- Respiratory infection, ie: pneumonia
- Aspiration

Care: Adult Patients only

B E I P

Follow general directive #3, Orders for all Patients.
Establish capnography if authorized

B

Assist patient with prescribed **Albuterol** (**Proventil®**) inhaler or nebulizer.

E I P

Albuterol (**Proventil®**) 2.5 mg and **Ipratropium** (**Atrovent®**) 0.5 mg via nebulizer.

Reassess.
If inadequate response:

E I P

Establish IV **Normal Saline**

E I P

Administer **Methylprednisolone** (**Solu-medrol®**) 125 mg IV push or IM.

E I P

Albuterol (**Proventil®**) 2.5 mg and **Ipratropium** (**Atrovent®**) 0.5 mg via nebulizer. May repeat once if inadequate response.

Reassess.
If inadequate response:

for COPD/ Asthma consider — E I P — **CPAP** 5 cmH_20

for Asthma consider — (E) (I) (P) — **Epinephrine** 0.5 mg IM

for Asthma consider — (I) (P) — **Magnesium** 2 grams IV drip over 20 min.

Pearls

- If tachycardia, ventricular ectopy, or chest pains develop discontinue **Albuterol** nebulizer and consult medical control.
- I/Ps should place patients on cardiac monitor when administering **Epinephrine**.
- When administering **Magnesium Sulfate** mix 2 grams **Magnesium Sulfate** in 250 ml Normal Saline using a microdrip (60 gtts/ml) set over 20 min (not wide open).
- **Atrovent** inhalation solution for nebulizer can be used safely in patients with peanut allergies.
- A quiet or silent chest is an ominous sign of a critically ill asthmatic and may signal impending arrest.
- Intubated asthmatics require slow respiratory rates to prevent breath stacking.
- Use "in line" neubulizer set up for intubated patients or patients on CPAP who are wheezing.
- Wheezing may also be a sign of CHF.
- **CPAP**, **Epinephrine**, and **Magnesium** may be utilized simultaneously and be requested sooner for critical patients.
- If wheezing is as a result of an allergic reaction, go to Non-cardiac protocol #2 Allergic Reactions.

Performance Indicators

- Proper assessment and treatment is performed and documented.