Respiratory Distress Protocol

Correct management of the patient in respiratory distress is dependent on identifying the etiology of the distress and recognizing the degree of the patient's distress. Signs and symptoms of respiratory distress may include:

- Shortness of breath
- Difficulty speaking
- Altered mental status
- Diaphoresis
- Use of accessory muscles
- Retractions
- Respiratory rate < 8 or > 24

If the etiology is questionable or your assessment does not provide a clear etiology, consult Medical Control for direction in patient care.

Asthma and COPD

In addition to general signs & symptoms of respiratory distress, patients may present with inspiratory & expiratory wheezing and/or "tight" lung sounds with decreased air movement.

First Responder Care

First Responder Care should be focused on assessing the situation and initiating routine patient care to treat for shock.

1. Render initial care in accordance with the *Routine Patient Care Protocol*.

2. **Oxygen**: 15 L/min via non-rebreather mask or 6 L/min via nasal cannula if the patient cannot tolerate a mask.

BLS Care

BLS Care should be directed at conducting a thorough patient assessment, initiating routine patient care to treat for shock and preparing the patient for or providing transport.

Respiratory Distress Protocol

Asthma and COPD (continued)

BLS Care (continued)

1. Render initial care in accordance with the *Routine Patient Care Protocol*.

2. **Oxygen**: 15 L/min via non-rebreather mask or 6 L/min via nasal cannula if the patient does not tolerate a mask. Be prepared to support with BVM if necessary.

3. **Proventil (Albuterol)**: 2.5mg in 3mL of normal saline via nebulizer over 15 minutes. May repeat Albuterol 2.5mg every ***15 minutes*** as needed (**with Medical Control order**).

4. Initiate ALS intercept if needed and transport as soon as possible.

5. Contact receiving hospital as soon as possible or Medical Control if necessary.

ILS Care

ILS Care should be directed at continuing or establishing care, conducting a thorough patient assessment, stabilizing the patient's perfusion and preparing for or providing patient transport.

1. Render initial care in accordance with the *Routine Patient Care Protocol*.

2. **Oxygen**: 15 L/min via non-rebreather mask or 6 L/min via nasal cannula if the patient does not tolerate a mask. Be prepared to support the patient's respirations with BVM if necessary.

3. **Proventil (Albuterol)**: 2.5mg in 3mL of normal saline via nebulizer over 15 minutes. May repeat Albuterol 2.5mg every ***15 minutes*** as needed (**with Medical Control order**). In-line nebulizer may be utilized if patient is unresponsive or in respiratory arrest.

4. Contact the receiving hospital as soon as possible or Medical Control if necessary.

Respiratory Distress Protocol

Asthma and COPD (continued)

ALS Care

ALS Care should be directed at continuing or establishing care, conducting a thorough patient assessment, stabilizing the patient's perfusion and preparing for or providing patient transport.

1. Render initial care in accordance with the *Routine Patient Care Protocol*.

2. **Oxygen**: 15 L/min via non-rebreather mask or 6 L/min via nasal cannula if the patient does not tolerate a mask.

3. **Proventil (Albuterol)**: 2.5mg in 3mL normal saline **mixed with** **Ipratropium (Atrovent)**: 0.5mg via nebulizer over 15 minutes. Repeat Albuterol 2.5mg with Atrovent 0.5mg every ***15 minutes*** as needed. In-line nebulizer may be utilized if patient is unresponsive or in respiratory arrest.

4. **Epinephrine 1:1000**: 0.3mg SQ if the patient is suffering status asthmaticus and does not improve with Albuterol/Atrovent treatment.

   - Special consideration should be given to administering Epinephrine if the patient is > 40 years old, has an irregular heart rate, has a heart rate > 150bpm or has a history of heart disease or hypertension. *Consult Medical Control prior to administration if the patient meets any of these criteria.*

5. Transport as soon as possible.

6. Contact the receiving hospital as soon as possible.

Respiratory Distress Protocol

CHF / Pulmonary Edema

In addition to general signs & symptoms of respiratory distress, patients may present with rales (or "crackles"), pedal edema, distended neck veins (JVD), orthopnea and tripod positioning.

First Responder Care

First Responder Care should be focused on assessing the situation and initiating routine patient care to treat for shock.

1. Render initial care in accordance with the *Routine Patient Care Protocol*.

2. **Oxygen**: 15 L/min via non-rebreather mask or 6 L/min via nasal cannula if the patient cannot tolerate a mask.

BLS Care

BLS Care should be directed at conducting a thorough patient assessment, initiating routine patient care to treat for shock and preparing the patient for or providing transport.

1. Render initial care in accordance with the *Routine Patient Care Protocol*.

2. **Oxygen**: 15 L/min via non-rebreather mask or 6 L/min via nasal cannula if the patient does not tolerate a mask.

3. Initiate ALS intercept and transport as soon as possible.

Respiratory Distress Protocol

CHF / Pulmonary Edema (continued)

ILS Care

ILS Care should be directed at continuing or establishing care, conducting a thorough patient assessment, stabilizing the patient's perfusion and preparing for or providing patient transport.

1. Render initial care in accordance with the *Routine Patient Care Protocol*.

2. **Oxygen**: 15 L/min via non-rebreather mask or 6 L/min via nasal cannula if the patient does not tolerate a mask. Be prepared to support the patient's respirations with BVM if necessary.

3. **Nitroglycerin (NTG)**: 0.4mg SL (1 metered spray dose sublingually). May repeat every ***3-5 minutes*** to a total of 3 doses (if systolic BP remains > 100mmHg).

4. **Contact Medical Control** as soon as possible.

5. **Furosemide (Lasix)**: 40 mg IV** slowly over 2 minutes **(with Medical Control order only)** if the systolic BP > 100mmHg.

   - **If the patient already takes Lasix, administer 2 times the patient's daily dose (i.e. if the patient takes 40mg daily, then administer 80mg IV slowly over 4-8 minutes).

   - **Lasix must be administered cautiously**. Do not give at a rate > **20mg/min**. Administering Lasix too quickly can cause hypotension, tinnitus, deafness and other complications.

6. Initiate ALS intercept if needed and transport as soon as possible.

Respiratory Distress Protocol

CHF / Pulmonary Edema (continued)

ALS Care

ALS Care should be directed at continuing or establishing care, conducting a thorough patient assessment, stabilizing the patient's perfusion and preparing for or providing patient transport.

1. Render initial care in accordance with the *Routine Patient Care Protocol*.

2. **Oxygen**: 15 L/min via non-rebreather mask or 6 L/min via nasal cannula if the patient does not tolerate a mask.

3. **Nitroglycerin (NTG)**: 0.4mg SL (1 metered spray dose sublingually). May repeat every ***3-5 minutes*** to a total of 3 doses (if systolic BP remains > 100mmHg).

4. **CPAP**: If the systolic BP > 100mmHg.

   - If the systolic BP is between 90-100mmHg, **contact Medical Control** prior to initiating CPAP.

   - **Do not** initiate CPAP if the systolic BP is < 90mmHg.

5. Obtain **12-Lead EKG** and transmit to Medical Control.

6. **Nitropaste (Nitro-Bid):** 1 inch to anterior chest wall if patient's systolic BP is greater than 100mmHg.

7. **Furosemide (Lasix)**: 40 mg IV** slowly over 2 minutes **(with Medical Control order only)** if the systolic BP is > 100mmHg.

   - **If the patient already takes Lasix, administer 2 times the patient's daily dose (i.e. if the patient takes 40mg daily, then administer 80mg IV slowly over 4-8 minutes).

   - **Lasix must be administered cautiously**. Do not give at a rate > **20mg/min**. Administering Lasix too quickly can cause hypotension, tinnitus, and deafness as well as other complications.

Respiratory Distress Protocol

CHF / Pulmonary Edema (continued)

ALS Care (continued)

8. Transport as soon as possible.

9. **Contact Medical Control** as soon as possible.

Critical Thinking Elements

- **Constant reassessment of the respiratory distress patient is imperative to assure that the patient has adequate ventilation and oxygenation. Closely monitor the patient's response to treatment rendered.**
- **Patients in respiratory distress should be transported in an upright position to assist their respiratory effort.**
- **CPAP is very effective in the treatment of CHF / Pulmonary Edema and should be applied if possible.**
- **CPAP should not be initiated on patients with a systolic BP < 90mmHg. CPAP increases intrathoracic pressure and can decrease venous return to the heart (compromising the patient's perfusion). Consult with Medical Control and use CPAP cautiously if the systolic BP is between 90-100mmHg for the same reason.**
- **Current CPAP equipment in the system is set at a PEEP of 10cmH_2O which is not adjustable. This setting is generally too high for patients with COPD (or asthma). Use CPAP if the patient presents with signs & symptoms of CHF/pulmonary edema.**