## ADULT RESPIRATORY DISTRESS:

Includes respiratory distress due to asthma, COPD, lung infections, pulmonary edema, pulmonary emboli, heart failure, hyperventilation or other causes. Since these conditions cannot be diagnosed in the pre-hospital environment, treatment is standard as below.

1. Evaluate breath sounds, mental status, skin color.
2. **Oxygen** by non-rebreather mask or nasal cannula as situation indicates (use mental status, skin color, and $O_2$ saturation to guide $O_2$ therapy).
3. Allow position of comfort.
4. $SpO_2$ monitor, cardiac **monitor**.
5. Assisted ventilation if needed by BVM or BV-ETT (use mental status, skin color, air movement, and $O_2$ saturation to assess need for assisted ventilation).
6. If history of asthma or COPD and wheezing give **Albuterol**, 2.5mg (0.5cc) in 3cc solution via SVN.
7. Establish an **IV line LR or NS TKO**.
8. In adults with rales in whom heart failure is suspected, and signs of volume overload (history of heart failure, hypertension, jugular venous distension, peripheral edema): administer Nitroglycerin 0.4 mg sublingual. Contraindicated if systolic < 100 mmHg.
9. **Contact Medical Control**

   Medical Control Options:

   a. Administer **Morphine Sulfate** on physician order for suspected heart failure. Titrate dose at 2-3mg and monitor blood pressure.
   b. **Nitroglycerin 0.4mg** sublingually or metered spray may be administered to create venous pooling in suspected heart failure. Determine how much, if any, the patient has already taken prior to administering additional nitroglycerin. Check blood pressure before administration. Contraindicated for systolic <100.
   c. **Albuterol 2.5mgs** (0.5cc) in 3cc solution via nebulizer running at 6 liters/minute.
   d. Consider **Epinephrine** 1:1000, 0.3-0.5mg subcutaneously or intramuscular (pediatric dose: 0.01mg/kg = 0.01cc/kg – move to Pediatric protocol).
   e. Intubation as indicated.
   f. Divert to closest hospital if deterioration anticipated.

## PEDIATRIC RESPIRATORY DISTRESS

1. Recognize respiratory distress. Consider foreign body obstruction. Some of the following many be present:
   a. Stridor.
   b. Wheezing.
   c. “Barking” Cough.
   d. Nasal flaring.
   e. Retractions.
   f. Use of accessory muscles.
   g. Silent chest (i.e.; asthmatic patient without air movement or wheezing).
   h. Altered level of consciousness.
   i. Tachycardia or bradycardia (may indicate hypoxemia).
   j. Anxiety (may indicate hypoxemia).
2. Keep child calm! Agitating a child with epiglottitis or any partial airway obstruction may completely obstruct their airway.
   a. Keep patient in their most comfortable position (this may be sitting up).
   b. Patient may be calmer when sitting with parents.
   c. Avoid invasive procedures such as taking blood pressures, temperatures, or starting IV’s. Insert nothing in mouth unless airway becomes obstructed.
3. Oxygenate.
   a. Give **100% $O_2$** directed at the face (may be better tolerated if parent holds).
   b. If available, use a pulse oximeter to monitor oxygenation of patient.

c. Prepare for emergency airway support and intubation should respiratory failure occur.
d. If the patient condition deteriorates, follow advanced life support guidelines.

4. Evaluate breath sounds. If wheezing administer **Albuterol** aerosol 2.5mg (0.5cc) in 3cc saline via nebulizer (< 1 year: 1.5mg {0.3cc} in 3cc saline).
5. Continually reassess ABC's and assess for foreign body history, reassess breath sounds.
6. Medical Options:
    a. **Albuterol** nebulization 2.5mg in 3ml of NS
    b. Subcutaneous or Intramuscular **Epinephrine** 1:1000, 0.01 mg/kg (0.01cc/kg). Not to be used in patients less than 3 mo.)
    c. Priority 1 to closest hospital.
7. **Contact Medical Control**
    a. Assist ventilation or intubation as needed. Needle cricothyrotomy may help if complete obstruction and unable to ventilate or intubate. Cricothyrotomy is difficult in children but is an option.