

Acute Respiratory Distress in Spontaneously Breathing Patient



Definition:

Acute increase in respiratory rate, shortness of breath, or hypoxia.

Start

- 1. Establish team leader and call for HELP.**
- 2. Check pulse and vital signs.**
 - If pulseless, initiate Advanced Cardiovascular Life Support.
- 3. If patient hypoxic, provide 100% oxygen with non-rebreather.**
- 4. Check code/triage status. (Can the patient be intubated?)**
- 5. Is there a failure to protect the airway?**
 - **Signs: stridor, secretions, or obstruction**
 - **Consider intubation**
- 6. Is there a failure to oxygenate?**
 - **Consider noninvasive ventilation vs high-flow nasal cannula vs intubation.**
- 7. Is there a failure to ventilate?**
 - **Signs: altered mental status, agonal breathing, rising Paco_2 , abdominal paradox**
 - **Consider noninvasive ventilation vs intubation**
- 8. Perform focused physical exam.**
 - Airway assessed with patient sitting up
 - Secretions
 - Cardiopulmonary exam
 - Jugular venous distention and peripheral edema
 - Accessory muscle use
- 9. Obtain intravenous or intraosseous access.**
- 10. Perform focused history.**
 - AMPLE: allergies, medications, past medical history, last meal, recent events
 - Consider sending senior member for electronic chart review
- 11. Obtain diagnostic testing.**
 - Blood: arterial blood gas, lactate, B-type natriuretic peptide, troponin, complete blood count, basic metabolic panel
 - Chest radiograph; consider computed tomographic pulmonary angiography for suspected pulmonary embolism (CTPE)
 - Electrocardiogram
 - Focused ultrasound
 - A or B line pattern
 - Lung sliding
 - Lower extremity compression ultrasound for deep venous thrombosis

Differential diagnosis

- **Pneumonia**
- **Chronic obstructive pulmonary disease – nebulizers, steroids; consider bilevel positive airway pressure if patient hypercarbic**
- **Asthma – if normal, rising, or high Paco_2 , consider intubation**
- **Pulmonary embolism – CTPE, heparin**
- **Pulmonary edema – diuretics, continuous positive airway pressure, nitroglycerin**
- **Pneumothorax – angiocatheter in midclavicular line, 2nd intercostal space, chest tube**
- **Atelectasis / mucus plugging – chest physiotherapy, aggressive suctioning (including left side), nebulizers**
- **Medications – consider reversal agents**