

You are called for a 70 year old male patient complaining of shortness of breath. On arrival, you note the patient is anxious, coughing and is semi-sitting in bed. Assessment findings include inspiratory crackles and mild wheezes bilaterally on auscultation, 2-3 word dyspnea, no JVD, and bilateral peripheral edema in the dependent extremities. Vital signs: HR 90 bpm, RR 42/min, BP 196/110, SPO2 88% on NRB (applied by your partner). Medications: Altace, Nitrolingual, Insulin, Lasix, ASA. Medical History: CHF, Angina, MI, Diabetes. Given this patient's presentation, what is/are your priorities of care?

- ✓ Oxygenation, respiratory support, 12-lead ECG, Nitroglycerin, leave legs dependent as long as possible, consider CPAP

QUESTION: Should Nitro or CPAP or both be administered to this patient?

The following will provide some guidance for the management of patients who present with crackles AND wheezing on auscultation. Wheezing may occur as a result of inflammatory processes (asthma) or from other causes (smoke inhalation, allergens, COPD, foreign body, bronchitis/pneumonia, pulmonary edema, etc.). With pulmonary edema, infiltration of fluid into the alveoli often associated with sudden, severe hypertension can produce a wheezing sound on auscultation caused by cardiac asthma and NOT bronchospasm. Other findings include crackles on auscultation and greater respiratory distress on inspiration. Conversely, bronchospasm is identified as a wheeze on expiration with a prolonged expiratory phase or possible silent chest. **** A thorough history and assessment is paramount in making a working diagnosis and treatment plan. ****

CLARIFICATION QUESTIONS:

1. Can you begin treatment under the Acute Cardiogenic Pulmonary Edema Medical Directive while you or your partner sets up the CPAP?
 - ✓ YES! Ideally all patients would receive the first and possibly a second nitro administration during the set up/initiation of the CPAP
2. When should CPAP be removed to administer medication?
 - ✓ No improvement or worsening of symptoms **** Removal should occur if CPAP becomes contraindicated ****
3. When should CPAP NOT be removed to administer medication?
 - ✓ Once a seal is obtained and the patient becomes comfortable, improvement in patient condition

**** Remember to document your reasons for ALL treatment initiated and/or discontinued. If your decision is to continue with uninterrupted CPAP and discontinue Nitro, then your documentation should clearly reflect assessment findings consistent with improvements in patient condition. ****