

PULMONARY EDEMA

Patients experiencing pulmonary edema will have rales or crackles on lung exam and may exhibit with JVD and/or peripheral edema and/or frothy sputum. Patients in severe pulmonary edema may benefit from assistance with positive pressure ventilation.

- A. Perform **Initial Treatment / Universal Patient Care Protocol** and follow the proper protocol for medical management based on clinical presentation.
- B. Consider ALS back up.
- C. If patient is in severe respiratory distress, consider CPAP if available per **CPAP Protocol 7301**. CPAP should be initiated for a minimum of five (5) minutes prior to administration of nitroglycerine.
- D. If patient has rales and initial blood pressure is > 110 **systolic**; administer nitroglycerin 0.4mg sublingual. Repeat doses require MCP order. **Obtain a manual BP between doses of Nitroglycerine and assess the patient's response prior to administering subsequent doses.**

NOTE: If patient has taken Sildenafil (*Viagra*®) or Vardenafil (*Levitra*®) within last 24 hours, or Tadalafil (*Cialis*®) within the last 72 hours, treat per E - I of this protocol.

- E. **If wheezing is present**, administer **Albuterol** 2.5 mg combined with **Ipratropium Bromide (Atrovent®)** 0.5 mg (Combi-Vent / Duo-Neb) with oxygen 8 - 10 LPM. If **Ipratropium Bromide (Atrovent®)** is contraindicated or the patient is a pediatric, administer **Albuterol** only.

- F. May repeat **Albuterol** 2.5 mg combined with **Ipratropium Bromide (Atrovent®)** 0.5 mg (Combi-Vent / Duo-Neb) per order of **Medical Command**. If **Ipratropium Bromide (Atrovent®)** is contraindicated or the patient is a pediatric, administer **Albuterol** only.



- G. Transport with **further orders per MCP**.



- H. If blood pressure < 90 systolic and patient has rales:
 - a. Expedite transport and monitor vital signs closely.

- b. Contact **Medical Command** for **further orders per MCP**.

- I. If blood pressure is < 90 systolic, refer to **Shock Protocol 6108**.