

CONGESTIVE HEART FAILURE/ PULMONARY EDEMA

History:

- A-fib
- Congestive heart failure
- Home treatment (oxygen, nebulizer)
- Medications (diuretics)
- Cardiac history / MI
- Orthopnea
- Toxic exposure, smoke inhalation
- Renal failure
- SAMPLE

Signs and Symptoms:

- Shortness of breath
- Pursed lip breathing
- Decreased ability to speak
- Increased respiratory rate and effort
- Rales / rhonchi
- Use of accessory muscles
- Fever, cough
- Tachycardia
- Cyanosis
- Peripheral edema/JVD

Differential:

- Asthma – meds, history
- COPD (Emphysema, Bronchitis) – meds, history
- Pneumonia
- Cardiac (MI or CHF) – meds, history
- Anaphylaxis – history
- Aspiration
- Pleural Effusion
- Pulmonary Embolus
- Pneumothorax
- Pericardial Tamponade
- Hyperventilation
- Toxic exposure

If signs / symptoms found go to appropriate protocol:

AIRWAY PROTOCOLS
ASTHMA / COPD
PNEUMONIA
ALLERGIC REACTION
CHEST PAIN
MEDICAL SHOCK

CORE

CARDIAC MONITORING

12 LEAD ECG

IV

Cardiogenic Shock?

Nitroglycerin SL

CPAP

Is SBP > 160?

Yes

IV Nitroglycerin Bolus

After 5 Minutes, Is SBP > 160?

Yes

IV Nitroglycerin Bolus

Nitroglycerin Transdermal

Medical Consult

Consider Norepinephrine

Legend

EMT

AEMT

Paramedic

CCT-Paramedic

Medical Consult

Pearls:

- WHEN IN DOUBT about the cause of the respiratory distress, support, transport and contact medical control.
- Waveform capnography should be used to assist with a differential diagnosis and to evaluate the effectiveness of treatment.
- Bronchodilators are only effective with bronchoconstriction as evidenced by waveform capnography or auscultation revealing wheezes not associated with cardiac complaints.
- Air Med and CCT medics may use the EMV BiPAP in lieu of CPAP. See **BiPAP EMV procedure**.
- In the event that Norepinephrine is unavailable, Push Dose Epinephrine may be used.
- In the event that IV Nitroglycerin is unavailable, Nitroglycerin SL & Transdermal should be used.