

# Southern Illinois Regional EMS System

## CC-10 HEART FAILURE / PULMONARY EDEMA

### ALS/ILS

- General Patient Assessment and Initial Care protocol.
- Assess for hypoperfusion and cardio-respiratory compromise.
- Consider cause: rate, rhythm, or pump problem; treat per appropriate protocol based on etiology.
- Listen to breath sounds in all lobes, front and back.
- Report the inspiratory/expiratory ratio and location of wheezes/crackles.

MILD to MODERATE – cardio/respiratory compromise: Alert, normotensive or hypertensive (SBP > 90mmHg and DBP >60)

- IV/IO access TKO
- Special considerations
  - Position patient sitting upright at 90 degrees (if tolerated).
  - If severe distress, assess the need for:
    - Oxygen 15 L/NRB (CPAP mask if available)
    - CPAP: Start with 5 cm/H<sub>2</sub>O pressure.
- Contact Medical Control
  - Titrate CPAP pressure not to exceed 10 cm/H<sub>2</sub>O by protocol to achieve SpO<sub>2</sub> 95% or greater.
  - Continue CPAP per the CPAP Procedure protocol.
- **Aspirin 324 mg** (4 tabs 81 mg) PO per Initial Cardiac Care/Chest Pain protocol unless contraindicated.
- **Nitroglycerin 0.4 mg SL**. If systolic BP remains >90, repeat **NTG 0.4 mg** every 5 minutes X 3.
- **Furosemide 40-80 mg IVP** if BP >100 systolic.
  - 80 mg for patients taking daily diuretics / 40 mg for patients that don't take diuretics
- Severe anxiety or pain: **Morphine 2 mg** increments up to 10 mg slow IVP if BP >100 systolic.

CARDIOGENIC SHOCK – Pump failure with BP less than 90 mm/Hg, with signs and symptoms of hypoperfusion or shock.

- IV/IO access at TKO
- Special considerations: Assess carefully for signs of hypovolemia/dehydration.
- **DOPAMINE**. Start at 5 mcg/kg/min; slowly titrate up to 20 mcg/kg/min until blood pressure is maintained above 90 mm/Hg systolic.
- If hypovolemic and/or dehydrated and certain that lungs are clear and respirations are not labored:
  - Fluid challenges in 200 mL increments.
  - Frequently reassess breath sounds.
- If alert with gag reflex: **ASPIRIN 324 mg** (4 tabs 81 mg) PO per Initial Cardiac Care/Chest Pain protocol.
- Time Sensitive Patient: Transport ASAP.