

PEORIA AREA EMS SYSTEM
PREHOSPITAL CARE MANUAL

Cardiogenic Shock Protocol

Cardiogenic shock: Low cardiac output state resulting in life-threatening end-organ hypoperfusion and hypoxia. This usually occurs in the setting of known cardiomyopathy/heart failure, rhythm disturbances, ROSC post cardiac arrest, history of cardiac surgery, or during Acute MI/cardiac ischemia.

Signs and symptoms ((with SBP < 90) may include: global weakness, hypotension, tachycardia, dyspnea, chest pain, JVD, weak pulse, pallor, clammy/diaphoretic skin, agitation, anxiety, or altered mental status.

Timely transportation to the emergency department is an important factor in patient outcome.

First Responder Care

1. Render initial care in accordance with the *Universal Patient Care Protocol*.
2. **Oxygen:** 15 L/min via non-rebreather mask. If the patient does not tolerate a mask, then administer 6 L/min via nasal cannula.

BLS Care

1. Render initial care in accordance with the *Universal Patient Care Protocol*.
2. **Oxygen:** 15 L/min via non-rebreather mask. If the patient does not tolerate a mask, then administer 6 L/min via nasal cannula.
3. Initiate ALS (or ILS) intercept and transport as soon as possible.

ILS Care

1. Render initial care in accordance with the *Universal Patient Care Protocol*.
2. **Oxygen:** 15 L/min via non-rebreather mask. If the patient does not tolerate a mask, then administer 6 L/min via nasal cannula.
3. **IV Fluid Therapy:** 20mL/kg fluid bolus.
4. Obtain **12-Lead EKG** and transmit to receiving hospital. Contact Medical Control if wide complex tachycardia or consultation is needed.
5. Initiate ALS intercept and transport as soon as possible.
6. **Contact Medical Control** as soon as possible.

ALS Care

1. Render initial care in accordance with the *Universal Patient Care Protocol*.
2. **Oxygen:** 15 L/min via non-rebreather mask. If the patient does not tolerate a mask, then administer 6 L/min via nasal cannula.
3. **IV Fluid Therapy:** Administer 500mL fluid bolus (avoid if signs of heart failure fluid bolus).
4. **Push-dose epinephrine:** (10 mcg/mL) for short transports

1. **To Make:** Draw up 1 mL of 1:10,000 cardiac epinephrine into a 10 mL syringe, and then draw up 9 mL of normal saline. Prior to administration, mix by rolling syringe back and forth using the palms of your hands.
2. **Administration:** 0.5 - 1.0 mL slow IV Push every 1 - 5 minutes to maintain systolic BP > 90mmHg
 - *Caution must be taken in giving pressors in the setting of an MI as they may worsen ischemia/infarct.*
5. **(Agency Optional) Norepinephrine (Levophed) infusion:** *for prolonged scene times or transports*
 1. **To Make:** Mix (2) 4mL Vials of Levophed in 250 mL of NS to achieve proper concentration.
 2. **Administration:** 1 - 20 mcg/min. Start at 5mcg/min, titrate every 5-10 minutes to maintain Systolic BP > 90mmHg.
 - The preferred method of administration is via IV pump (if available)
 - Administer through a confirmed patent, large bore (>18 gauge) IV in a proximal vein (Antecubital preferred).
 - This medication may cause limb necrosis if extravasation occurs, if it does immediately stop medication infusion and notify receiving hospital.
 - Monitor blood pressure every 5 minutes.
6. If the patient has a cardiac dysrhythmia, treat the underlying rhythm disturbance according to the appropriate SMO.
7. Obtain **12-Lead EKG** and transmit to receiving hospital. Contact Medical Control if wide complex tachycardia or consultation is needed.
8. Transport as soon as possible (transport can be initiated at any time during this sequence) and **Contact Medical Control** as soon as possible.