





**Genesee County  
ADULT CARDIAC**  
CHEST PAIN/ACUTE CORONARY SYNDROME

Initial Date:  
Revised Date: 12/05/2024

Section 5-5

### ***Chest Pain/Acute Coronary Syndrome***

The goal is to reduce cardiac workload and to maximize myocardial oxygen delivery by reducing anxiety, appropriately oxygenating, and relieving pain. For non-cardiac causes of chest pain, refer to appropriate protocol which may include **Pain Management-Procedure Protocol**.

1. Follow **General Pre-Hospital Care Protocol**.
2. Assist patient in the use of their own **aspirin** up to a dose of 325 mg and per formulation (chew, swallow, etc.)
-  3. Administer **aspirin** up to 325 mg PO, chew and swallow if no aspirin or suspected insufficient dose since the onset of chest pain.
4. Obtain 12-lead as early as possible without delaying medication administration. (Per MCA selection, may be a BLS or Specialist procedure, follow **12 Lead ECG Protocol**).
5. Administer oxygen 4 L/min per nasal cannula if pulse oximetry SpO2 < 94%.
6. Inquire of all patients regardless of identified gender if they have taken an erectile dysfunction medication in the last 48 hours. Avoid using nitroglycerin if you suspect or know that the patient has taken sildenafil or vardenafil within the previous 24 hours or tadalafil within 48 hours. These agents are generally used for erectile dysfunction or in cases of pulmonary hypertension, and in combination with nitrates, they may cause severe hypotension refractory to vasopressor agents.
  - a. If yes, DO NOT ADMINISTER OR ASSIST WITH NITROGLYCERIN.
7. Consider **fentanyl** early when nitroglycerin is contraindicated due to erectile dysfunction medication as noted in #6 above. (see 14. below for fentanyl administration)
8. If no erectile dysfunction medication, systolic BP is above 120 mmHG and patient has their own **nitroglycerin** sublingual tabs available (check expiration date): assist patient in use of their own nitroglycerin, up to a maximum of 3 doses.
-  9. Prior to IV administration if no erectile dysfunction medication and systolic BP is above 120 mmHG, **nitroglycerin** 0.4mg sublingual may be administered up to a maximum of 3 doses.
-  10. Start an IV NS or LR KVO per **Vascular Access and IV Fluid Therapy-Procedure Protocol**.
-  11. If the patient has a SBP of less than 100 mmHg:
  - a. Administer 250 ml fluid bolus (may repeat 3 times for a total of 1 liter)
  - b. Between boluses assess patient response and monitor for pulmonary edema.
  - c. If pulmonary edema is noted stop fluids and contact Medical Control.



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12. If no erectile dysfunction medication, IV has been established, and systolic BP is above 100 mmHG, administer **nitroglycerin** 0.4 mg sublingual. Dose may be repeated at 3-to-5-minute intervals if chest pain persists and systolic BP remains above 100 mmHg.
13. For patients with suspected cardiac chest pain refractory to **nitroglycerin**, or nitroglycerin is contraindicated due to erectile dysfunction medication, consider **fentanyl** administration:
- a. Adults administer **fentanyl** 1 mcg/kg IV/IO/IN, max single dose 100 mcg, may repeat one time. Total dose may not exceed 200 mcg.
  - b. Total dose may not exceed 200 mcg without Medical Control approval.

Medication Protocols

Aspirin

Nitroglycerin

Fentanyl