

**HEMS**  
**ADULT CARDIAC**  
**CHEST PAIN/ACUTE CORONARY SYNDROME**

Initial Date: 11/15/2015  
Revised Date: 6/2/2025

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. 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 Procedure-Protocol**).
3. Administer oxygen 4 L/min per nasal cannula if pulse oximetry SpO2 < 94%.
4. Assist patient in the use of their own **aspirin** up to a dose of 325 mg and per formulation (chew, swallow, etc.)
-  5. Administer **aspirin** up to 325 mg PO, chew and swallow if no aspirin or suspected insufficient dose since the onset of chest pain. (Per MCA selection may be MFR and/or EMT skill).

<b>Aspirin Administration</b>	
<input type="checkbox"/> MFR	<input type="checkbox"/> EMT

6. Inquire of all patients regardless of identified gender if they have taken an erectile dysfunction medication or medications used to treat pulmonary hypertension in the last 48 hours.
  -  a. If yes, **DO NOT ADMINISTER/ ASSIST WITH NITROGLYCERIN AND CONTACT MEDICAL CONTROL**.
-  7. Consider **fentanyl** early when nitroglycerin is contraindicated due to erectile dysfunction medication (see 14. below for **fentanyl** administration)
-  8. If no erectile dysfunction medication, systolic BP is above 120 mmHG and patient has **nitroglycerin** sublingual tabs prescribed to them 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. (Per MCA selection may be EMT skill)

<b>Nitroglycerin Administration</b>	
<input type="checkbox"/> EMT	

-  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

**HEMS**  
**ADULT CARDIAC**  
CHEST PAIN/ACUTE CORONARY SYNDROME

Initial Date: 11/15/2015

Revised Date: 6/2/2025

Section 5-5

- 
- ① 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.
  - ① 13. Obtain 12-lead ECG (Per MCA selection, may be a BLS or Specialist procedure, follow **12 Lead ECG Procedure-Protocol**). Follow local MCA transport protocol if ECG is positive for acute ST Elevation Myocardial Infarction (STEMI) and alert the hospital as soon as possible.
  - ① 14. For patients with suspected cardiac chest pain refractory to **nitroglycerin**, or **nitroglycerin** is contraindicated due to erectile dysfunction medication, consider **fentanyl** administration:
    - a. Adults (patients >14 years of age) administer **fentanyl** 1 mcg/kg IV/IO/IN, rounded up to the nearest dose of 25, 50, 75, or 100 mcg, 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 contact and approval.



Medication Protocols

Aspirin

Fentanyl

Nitroglycerin