

	<b>COUNTY OF SACRAMENTO</b> EMERGENCY MEDICAL SERVICES AGENCY	Document #	8030.25
	<b>PROGRAM DOCUMENT:</b>  <b>Discomfort/Pain of Suspected Cardiac Origin</b>	Initial Date:	09/07/14
		Last Approval Date:	06/10/21
		Effective Date:	07/01/21
		Next Review Date:	03/01/22

Signature on File

EMS Medical Director

Signature on File

EMS Administrator

**Purpose:**

- A. To serve as treatment standard when treating patients with discomfort/pain of suspected cardiac origin.

**Authority:**

- A. California Health and Safety Code, Division 2.5
- B. California Code of Regulations, Title 22, Division 9

**Protocol:**

BLS
<ol style="list-style-type: none"> <li>1. ABC's/Routine Care-Supplemental O<sub>2</sub> as necessary to maintain SPO<sub>2</sub> ≥ 94%. Use the lowest concentration and flow rate of O<sub>2</sub> as possible.</li> <li>2. Aspirin (ASA)- Administer 324mg chewable ASA orally, except in cases of allergy to ASA. Concurrent anticoagulation therapy is not a contraindication for ASA administration. If ASA is not administered, the reason shall be documented in the ePCR.</li> <li>3. Transport</li> </ol>
ALS
<ol style="list-style-type: none"> <li>1. Assessment and treatment, should occur concurrently, with a priority to obtain a single good quality 12 lead ECG within 10 minutes of patient contact.</li> <li>2. Scene time for a STEMI should be ≤ 10 minutes</li> <li>3. Pulse Oximetry shall be used.</li> <li>4. Cardiac Monitor</li> <li>5. If the 12 lead ECG is consistent with an Acute MI / STEMI by software algorithm interpretation:             <ul style="list-style-type: none"> <li>• Do not treat with Nitroglycerine.</li> <li>• Administer ASA 324 mg PO</li> <li>• Obtain vascular access (When possible, avoid using right wrist or hand, as this is often used for cardiac catheterization)</li> <li>• The patient shall be transported to the closest designated STEMI center with a STEMI pre-alert notification.</li> <li>• The closest designated STEMI center shall receive transmission of the positive STEMI ECG and a pre-alert notification of "STEMI" and must be documented in the ePCR.</li> <li>• A copy of all 12-Leads shall be delivered with the patient.</li> </ul> </li> </ol>

6. Nitroglycerine (NTG) may be given if not contraindicated:
- 0.4 mg sublingual may be repeated every 5 minutes.
  - Titrate Subsequent NTG to pain relief as long as the SBP > 90 mmHg.
  - Absence of vascular access shall not preclude use of NTG as long as all other criteria are met.

**NTG Contraindications:**

- ECG is consistent with an Acute MI / STEMI
- B/P is  $\leq$  90 systolic or drops > 30 mm/Hg from baseline after administration
- Heart rate is  $\leq$  50
- Have taken PDE-5 inhibitors [Avanafil, Sildenafil, Tadalafil, Vardenafil, Vildenafil or equivalent] within the last 48 hours.

**Special Considerations:**

1. If NTG is contraindicated or after the third (Paramedic-administered) NTG, the patient does not have relief of chest discomfort/pain; the Paramedic may elect to administer pain medication as per Pain Management Policy PD# 8066.
2. If patient is nauseated and/or vomiting refer to Policy, PD#8063.
3. Hemodynamically unstable patients (SBP < 90 mmHg) with an Acute STEMI ECG shall be transported to the time closest facility providing interventional cardiac catheterization services.

**Cross Reference:** PD# 8066 – Pain Management  
PD# 8063 – Nausea and/or Vomiting  
PD# 8827 – 12-Lead ECG