**Pearls**

- Many STEMI's evolve during prehospital care and may not be noted on the initial 12-Lead ECG.
- An ECG should be obtained prior to treatment for bradycardia if patient condition permits.
- If a patient has taken their own Nitroglycerin without relief, consider potency of medication. Provider maximum doses do not include patient administered doses.
- Monitor for hypotension after administration of nitroglycerin and opioids.
- Diabetics, geriatric, and female patients often have atypical pain, or only generalized complaints. Suspect cardiac etiology in these patients, and perform a 12-Lead ECG.

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**History**
- Age
- Medications (Erectile dysfunction medications)
- Past medical history (e.g., MI, angina, diabetes, or post menopausal)
- Allergies
- Recent physical exertion
- Onset
- Provocation
- Quality (e.g., pressure, constant, sharp, dull, etc.)
- Region/Radiation/Referred
- Severity (0 – 10 scale)
- Time (onset/duration/repetition)

**Signs and Symptoms**
- Heart rate < 60 with associated hypotension, acute altered mental status, chest pain, acute CHF, seizures, syncope, or shock secondary to bradycardia
- Chest pain
- Respiratory distress
- Hypotension or shock
- Altered mental status
- Syncope
- Nausea
- Abdominal Pain
- Diaphoresis

**Differential**
- Acute myocardial infarction
- Hypoxia
- Pacemaker failure
- Hypothermia
- Sinus bradycardia
- Athletes
- Head injury (elevated ICP) or stroke
- Spinal cord lesion
- Sick sinus syndrome
- AV blocks (e.g., 1st, 2nd, or 3rd)
- Overdose

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**Chest Pain: Not Cardiac**

**For musculoskeletal and pleuritic pain and any chest pain that is NOT of possible cardiovascular etiology**

- **History**
  - Age
  - Medications (Erectile dysfunction medications)
  - Past medical history (e.g., MI, angina, diabetes, or post menopausal)
  - Allergies
  - Recent physical exertion
  - Onset
  - Provocation
  - Quality (e.g., pressure, constant, sharp, dull, etc.)
  - Region/Radiation/Referred
  - Severity (0 – 10 scale)
  - Time (onset/duration/repetition)

- **Signs and Symptoms**
  - Heart rate < 60 with associated hypotension, acute altered mental status, chest pain, acute CHF, seizures, syncope, or shock secondary to bradycardia
  - Chest pain
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- **Differential**
  - Acute myocardial infarction
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  - Overdose

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**Chest Pain?**

- **Signs/symptoms consistent with cardiac etiology?**
  - Yes
  - Chest Pain: Suspected Cardiac

- **No**

  - **Oxygen for sat < 92%**
  - Position of comfort for pain control
  - Consider, cardiac monitor
  - Consider, 12-Lead ECG
  - Establish IV/IO
  - For pain consider, Fentanyl
  - If systolic BP < 90
    - **Normal Saline bolus 500ml IV/IO**
    - **Maximum 2L**
  - Notify receiving facility.
  - Consider Base Hospital for medical direction

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**San Mateo County Emergency Medical Services**

**Treatment Protocol A05**

**Effective April 2023**