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., 1°, 2°, or 3°)
- Overdose

Chest pain? Signs/symptoms consistent with cardiac etiology?

Yes

No

Oxygen for sat < 92%

Aspirin

Cardiac monitor

12-Lead ECG (within 5 mins of arrival)

Acute MI/STEMI (STEMI = 1mm ST segment elevation ≥ 2 contiguous leads; See 12-Lead Procedure) EKG Reads ****ACUTE MI SUSPECTED**** or equivalent

Yes

Establish IV/IO

Nitroglycerin (Hold for BP < 110)

For pain consider Fentanyl

if systolic BP < 90 Normal Saline bolus 500ml IV/IO Maximum 2L

Declare a STEMI Alert & Transmit EKG

Establish IV/IO

Nitroglycerin (Hold for BP < 110)

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

Approved STEMI Receiving Centers
- Kaiser Redwood City
- Mills - Peninsula Medical Center
- Sequoia Hospital
- Seton Hospital
- Stanford Hospital

Effective April 2024
**Pearls**

- If there is question about a 12-Lead ECG, transmit it to the closest STEMI Center for physician interpretation.
- Avoid Nitroglycerin in any patient who has used Viagra (Sildenafil) or Levitra (Vardenafil) in the past 24 hours or Cialis (Tadalafil) in the past 36 hours due to the potential of severe hypotension.
- Avoid Nitroglycerin in patients who are having an inferior STEMI.
- Many STEMI 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.