# CHEST PAIN/ACUTE CORONARY SYNDROME (ACS)

**INCLUSION CRITERIA:** Adult patients with chest discomfort or any other symptoms of potential cardiac origin; abnormal heart rate and rhythm such as bradycardia and tachycardia. Consider in patients with atypical symptoms (e.g. upper abdominal pain, dyspnea, nausea, diaphoresis, lightheadedness, generalized weakness, or *Syncope*).

**EXCLUSION CRITERIA:** Patients with chest pain from known traumatic injury; patients <18 years of age

**OTHER GUIDELINES TO CONSIDER:** Bradycardia – Adult (8 Years & Older), Cardiac Arrest, Cardiac Monitoring, Difficulty Breathing, Hypotension or Shock, Pain Management, Syncope, Tachycardia, 12 Lead ECG

### EMR
- **Universal Care**
- Initiate **Pulse Oximetry**
  - If pulse oximetry is less than 93%, titrate **Oxygen** to lowest level to maintain pulse oximetry at 93% or greater
  - Do not withhold oxygen if patient is having difficulty breathing or if unable to assess an oxygen saturation
  - **Aspirin**
    - Adult
      - PO: 324 mg chewed; if patient has already taken aspirin, may supplement to 324 mg total dose

### EMT
- Initiate **Cardiac Monitoring**
- **IF AUTHORIZED:** acquire 12 Lead ECG within 5 minutes of patient contact; repeat:
  - Prior to initiating transport if patient still having symptoms
  - On arrival at the hospital
  - For worsening chest pain or ECG changes
- Transmit ECG to hospital
  - Notify ED of transmitted ECG and request interpretation for possible STEMI or any of the following:
    - Wide QRS complexes
    - Suspected ST elevation
    - Suspected cardiac ischemia with ST depression in two or more contiguous leads
    - ECG looks unusual

### AEMT
- Consider **Nitroglycerin** – Do not delay nitroglycerin to establish an IV
  - Adult
    - SL: 0.4 mg tablet or metered spray; may repeat every 5 minutes; no maximum total dose. Do not administer if SBP< 100 mmHg
- Initiate **IV/IO Access**
- Consider **Fluid Bolus – IV/IO** if hypotension or signs of hypovolemia
- If nauseated or vomiting, see **Nausea or Vomiting** guideline

### INT
- **If pain unrelieved after three (3) Nitroglycerin**, consider **Pain Management** while continuing to administer Nitroglycerin
- **If 12 Lead ECG** confirms an Acute MI/STEMI notify hospital to trigger STEMI Alert
- Options for care include:
  - Initial rapid transport to closest ED
  - Direct transport to closest PCI capable facility
  - Interception with ALS for direct transfer via:
    - Air medical transport (HEMS)
    - Paramedic level ground transport
  - CONTACT ONLINE MEDICAL CONTROL if situation is unclear or for any concerns regarding transport destination and method of transport

### PARA
- Performing a **12 Lead ECG** during initial evaluation, prior to initiating transport, and upon hospital arrival enhances the likelihood of identifying a STEMI by 15% compared to obtaining a single ECG.