STEMI
Adult Medical

Medical Director: Benjamin Oei, M.D.

Austin County EMS Protocol & Guideline	
Version:	1.0
Date:	04/2019

Overview: Acute Coronary Syndrome (ACS) cannot be dismissed by the patient and/or medic. Early recognition and thorough assessment of frank and obscure signs and symptoms will help guide the medic to a good, comprehensive care plan.

Definition: ACS is any patient, without discrimination of age, history, etc., presenting with chest pain, peri-chest pain, and/or other frank or obscure signs and symptoms associated with cardiac event indicating inadequate tissue perfusion of the myocardium.

EMT

Ensure proper skin prep and placement of 12 Lead EKG leads is performed

- Place patient on the **Cardiac Monitor**
- Obtain **12 Lead EKG**
- If inferior wall infarct is suspected conduct a **right side 12 Lead EKG** - Typical signs of an inferior wall infarction include hypotension, bradycardia, nausea, vomiting, hiccoughing, distended neck veins, and clear lung sounds.
- If diagnostic print out states *****Acute MI***** notify responding Paramedic and EMS 1 if not on scene.
- Transmit EKG to appropriate hospital if applicable – If unable to transmit the 12 Lead EKG contact the receiving hospital and request a phone number to text or an email to send the 12 Lead EKG
- Notify responding Paramedic and/or EMS 1 which facility the 12 Lead was transmitted to
- **324 mgs ASA** PO if patient has not already taken any
- Obtain **BGL**
- **Oxygen** administration as appropriate to the patients presentation

AEMT

- Establish IV of Normal Saline – Bilateral IV's if possible – **Avoid IV access near the wrist due to possible radial PCI.**
- If a right ventricular infarct is suspected, administer up to 20 ml/kg of normal saline- titrated to blood pressure

Paramedic

- **Contact receiving hospital physician to discuss transmitted EKG & Possible Cath Lab activation**
- **Nitroglycerin Spray SL,** 0.4 mg as needed to relieve chest pain/discomfort. Discontinue if BP drops below 90 mmHg systolic.
- **Nitroglycerin Paste,** dermal 1 inch. Apply to upper left chest – Discontinue SL Nitro spray once paste is placed.
- **Morphine Sulfate -** 2-10 mg IV **or Fentanyl -** 2 mcg/kg IVP as needed for pain
- **Ondansetron** 4mg - Max of 8 mg **or Diphenhydramine** 12.5 – 25 mg IV/IO/IM – for nausea and vomiting
- **Diphenhydramine** 12.5 -25mg IV/IO/IM– for hypotension secondary to Morphine administration
- **Heparin** 5000 unit bolus IVP

SITE	FACING	RECIPROCAL
INFERIOR	II, III, aVF	I, aVL
HIGH LATERAL	I, aVL	II, III, aVF
ANTERIOR	V1, V2, V3, V4	NONE
POSTERIOR	NONE	V1, V2, V3, V4

EMS12Lead.com

I Lateral	aVR	V1 Septal	V4 Anterior
II Inferior	aVL Lateral	V2 Septal	V5 Lateral
III Inferior	aVF Inferior	V3 Anterior	V6 Lateral

EMS12Lead.com

PEARLS

- May withhold advanced treatment if cardiac ischemia is not suspected based on history, examination, and ECG findings.
- Acute Coronary Syndromes may present atypically (without chest pain), especially in female and/or diabetic patients. Other presentations that may require a 12-lead ECG include: dizziness, palpitations, SOB, nausea/vomiting/ABD pain, acid indigestion/heartburn, upper extremity/neck/jaw pain, back or shoulder pain, weakness, general malaise, or syncope/near syncope.
- Morphine provides added benefit of reducing cardiac work load, however, Fentanyl can be utilized in place of Morphine or if Morphine does not provide adequate pain relief.
- Oral anticoagulant therapy (i.e. daily Warfarin, Xarelto, ASA, etc.) is not a contraindication to **Aspirin** administration
- **Nitroglycerin** is the drug of choice for relieving ischemic chest pain and should be administered prior to opiates.
- **Nitroglycerin** should be used with extreme caution in a patient having a right ventricular infarction, and may be administered prior to an IV being established only when a 12-lead ECG shows no indication of possible right ventricular infarction.
- **Nitroglycerin** must be used with caution in the patient who has taken a phosphodiesterase inhibitor (Viagra, Cialis, Levitra, etc…) within 24 hours. A significant BP drop occurrence post **Nitroglycerin** administration should be anticipated.
- A developing Left Bundle Branch Block (LBBB) should be treated like ST Elevation, and makes the patient a candidate for cardiac catheterization and/or thrombolytic therapy (See STEMI Protocol).
- If a patient has recurring symptoms, the time of onset is considered to be when the symptoms became constant.

Minimum of 2 quality 12 leads should be performed on any patient that receives a 12 lead to identify trending