ADULT ACLS: ACUTE CORONARY SYNDROME (ACS)

UNIVERSAL PATIENT CARE PROTOCOL

OXYGEN to keep SpO2 > 94%

12 LEAD EKG PROCEDURE - LEFT
Obtain and Transmit to Receiving Facility
1ST Contact to EKG and Transmission < 10 Min

IV PROCEDURE

E	EMT	E
A	AEMT	A
P	PARAMEDIC	P
M	MED CONTROL	M

Go to Appropriate Dysrhythmia Protocol

CHEST PAIN AND EKG INDICATES STEMI

Consider placing Combi-Pacer Pads or Multifunctional pads on Early- AP position

Strongly encourage transport to hospital with interventional cath lab when STEMI is present on 12 lead

Use caution with acute inferior wall MI
(II, III, aVF) – Place IV prior to Nitroglycerine. Normal saline bolus prior to Nitroglycerine strongly recommended
Use caution with acute septal wall MI
(V1, V2) – Watch for AV blocks

ASPIRIN
324 mg chew and swallow
(81 mg / tab x4)

NITROGLYCERIN (NITRO-STAT)
0.4 mg SL
(If SBP > 110 with IV or SBP >120 without IV)
May give up to 3 total if no pain relief, every 5 minutes

STOP STOP ⚠ ED drug use within 48 hrs
EMT use requires DIRECT Med Control
Fluid Bolus Prior if inferior MI / ST Elevation II,III,aVF

Contact receiving facility after EKG transmission to confirm STEMI and obtain order for BRILINTA and HEPARIN.
If ordered
Administer **BRILINTA (Ticagrelor)**
180 mg PO

Administer **HEPARIN** if confirmed STEMI
60 units/kg IVP/IO to max dose of 4000 units

Continued Chest Pain? Adequate BP?

CAPNOGRAPHY PROCEDURE

Consider **FENTANYL (Sublimaze)**
25-50 mcg IVP/IO Max Dose = 100 mcg or 50 mcg IN
May repeat x 1

If Cocaine Induced STEMI include
VERSED (Midazolam) 5 mg/ml
2.5 – 5 mg IVP/IO
10 mg IN

ISCHEMIC CHEST PAIN – NO STEMI ON EKG

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

SITE	FACING	RECIPROCAL
SEPTAL	V1, V2	NONE
ANTERIOR	V3, V4	NONE
ANTEROSEPTAL	V1, V2, V3, V4	NONE
LATERAL	I, aVL, V5, V6	II, III, aVF
ANTEROLATERAL	I, aVL, V3, V4, V5, V6	II, III, aVF
INFERIOR	II, III, aVF	I, aVL
POSTERIOR	NONE	V1, V2, V3, V4

TRANSPORT to appropriate facility **CONTACT** receiving facility **CONSULT** Medical Direction where indicated

ADULT ACLS: ACUTE CORONARY SYNDROME (ACS)-Cont.

PEARLS and KEY POINTS

HISTORY	SIGNS AND SYMPTOMS	DIFFERENTIAL DIAGNOSIS
• Age • Medications • Past medical history (MI, angina, diabetes) • Allergies • Recent physical exertion • **O**nset • **P**alliation / **P**rovocation • **Q**uality (crampy, constant, sharp, dull, etc.) • **R**egion / **R**adiation / **R**eferred • **S**everity (1-10) • **T**ime (duration / repetition)	• CP (pain, pressure, aching, tightness) • Location (substernal, epigastric, arm, jaw, neck, shoulder) • Radiation of pain • Pale, diaphoresis • Shortness of breath • Nausea, vomiting, dizziness	• Trauma vs. medical • Angina vs. myocardial infarction • Pericarditis • Pulmonary embolism • Asthma / COPD • Pneumothorax • Aortic dissection or aneurysm • GE reflux or hiatal hernia • Esophageal spasm • Chest wall injury or pain • Pleural pain

- Make the scene safe: All cardiac chest pain patients must have an IV, O_2 and monitor.
- Exam: Mental Status, Skin, Neck, Lung, Heart, Abdomen, Back, Extremities, Neuro.
- If patient has taken Nitroglycerin (Nitro-stat) without relief, consider potency of the medication.
- If positive ECG changes, establish a second IV while en route to the hospital.
- Monitor for hypotension after administration of Nitroglycerin (Nitro-stat
- Nitroglycerin (Nitro-stat) may be repeated per dosing guidelines in the MEDICATIONS SECTION.
- Diabetics and geriatric patients often have atypical pain, vague, or only generalized complaints. Be suspicious of a “silent MI”.
- Refer to the BRADYCARDIA PROTOCOL (HR < 60 bpm) or NARROW COMPLEX TACHYCARDIA PROTOCOL (HR > 150 bpm) if indicated.
- If the patient becomes hypotensive from Nitroglycerin (Nitro-stat) or Fentanyl administration, place the patient in the Trendelenburg position and administer a Normal Saline bolus.
- Be prepared to assist ventilations and administer low dose Narcan (Naloxone) 0.4-1mg if the patient experiences respiratory depression due to Fentanyl administration.
- If pulmonary edema is present, refer to the CHF / ACUTE PULMONARY EDEMA PROTOCOL.

- Aspirin can be administered to a patient on Coumadin (Warfarin), unless the patient’s physician has advised them otherwise.
- If the patient took a dose of Aspirin that was less than 324 mg in the last (24) hours, then additional Aspirin can be administered to achieve a therapeutic dose of 324 mg.
- DO NOT administer Nitroglycerin (Nitro-stat) to a patient who took an erectile dysfunction medication (Viagra -Sildenafil), Cialas-Tadalafil, Levitra-Vardenafil, Stendra-Avanafil, etc) within the last 48 hours due to potential severe hypotension.
- Nitroglycerin (Nitro-stat) can be administered to a patient by EMS if the patient has already taken their own prior to your arrival. Document it if the patient had any changes in their symptoms or a headache after taking their own Nitroglycerin.

- Nitroglycerin (Nitro-stat) can be administered without an IV as long as patient has a BP greater than 120 mmHg, without signs of inferior wall MI.
- DO NOT treat the PVC’S with Amiodarone (Cordarone) unless patient develops V-tach.
- Pulse oximetry is not an indicator of myocardial perfusion.
- The early application of Combi-Pacer pads or Multifunctional pads is encouraged for ALL STEMI patients