

# AHA ACLS Acute Coronary Syndrome Algorithm

Symptoms Indicate possible Ischemia or infarction

## EMS and Prehospital Care

- ✓ Monitor support ABC's. Readiness for CPR and/or defibrillation
- ✓ Obtain 12-Lead ECG; (STEMI) ST elevation should be reported to the receiving facility
- ✓ Medications to give: Aspirin, Oxygen, SL Nitroglycerine and Morphine
  - ✓ Hospital should prepare to respond to STEMI

● Must be performed immediately

● Must be performed in less than 10 minutes

### Immediate ED Assessment & Treatment:

- 12 Lead ECG (if not done pre-hospital)
- Obtain vital signs; O2 sat
- Oxygen if O2 sat < 90%; 4L then titrate
- Establish IV & give Morphine if needed
- Provide Aspirin 162-325 mg
- Provide nitroglycerine sublingual or spray
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- Perform brief, targeted hx. & physical exam obtain
- Review fibrinolytic checklist. Check contraindications
- Obtain cardiac marker levels, electrolyte, and coagulation tests.
- Portable chest x-ray (<30 min.)

## Read ECG

**ST Elevation MI (STEMI) or New LBBB; strongly suspicious for injury**

Start adjunctive therapies (as indicated)  
**Do not delay reperfusion therapy**

Onset of Symptoms ≤ 12 hrs

### Reperfusion goals:

- ❑ Goal for stent placement or balloon inflation should be ≤ 90 minutes of first contact
- ❑ Goal for fibrinolysis should be 30 minutes

**Non-ST-elevation ACS (NSTEMI-ACS)**

### High-risk NSTEMI-ACS

ST depression or dynamic T-wave inversion; transient ST elevation; strongly suspicious for ischemia or high-risk score

### Elevated Troponin or high-risk patient

#### Consider early invasive plan if:

- \*Continued ischemic chest discomfort
- \*Continued ST deviation
- \*Unstable hemodynamics
- \*Signs of heart failure
- \*Ventricular Tachycardia

**Start adjunctive therapies** (heparin, NGT) as indicated

**Low or Intermediate-risk NSTEMI-ACS**  
Normal ECG or non-diagnostic changes in ST segment or T-wave; low-risk score

**Consider admission to ED chest pain unit or to appropriate unit for further monitoring and possible intervention**