Chest Pain/Acute Coronary Syndrome (ACS)/ST-segment Elevation Myocardial Infarction (STEMI)

Aliases

Heart attack   Myocardial infarction (MI)

Patient Care Goals
1. Identify ST-elevation myocardial infarction (STEMI) quickly
2. Determine the time of symptom onset
3. Activate hospital-based STEMI system of care
4. Monitor vital signs and cardiac rhythm and be prepared to provide CPR and defibrillation if needed
5. Administer appropriate medications
6. Transport to appropriate facility

Patient Presentation

Inclusion Criteria
1. Chest pain or discomfort in other areas of the body (e.g., arm, jaw, epigastrium) of suspected cardiac origin, shortness of breath, associated or unexplained sweating, nausea, vomiting, or dizziness. Atypical or unusual symptoms are more common in women, the elderly, and diabetic patients. May also present with CHF, syncope, and/or shock
2. Chest pain associated sympathomimetic use (e.g., cocaine, methamphetamine)
3. Some patients will present with likely non-cardiac chest pain and otherwise have a low likelihood of ACS (e.g., blunt trauma to the chest of a child). For these patients, defer the administration of aspirin (ASA) and nitrates per the Pain Management Guideline

Exclusion Criteria
None noted

Patient Management

Assessment, Treatment, and Interventions
1. Signs and symptoms include chest pain, congestive heart failure (CHF), syncope, shock, symptoms similar to a patient's previous MI
2. Assess the patient's cardiac rhythm and immediately address pulseless rhythms, symptomatic tachycardia, or symptomatic bradycardia [See Cardiovascular Section and Resuscitation Section]
3. If the patient is dyspneic, hypoxemic, or has obvious signs of heart failure, EMS clinicians should administer oxygen as appropriate with a target of achieving 94–98% saturation [Refer to Universal Care Guideline]
4. The 12-lead EKG is the primary diagnostic tool that identifies a STEMI; it is imperative that EMS clinicians routinely acquire a 12-lead EKG within 10 minutes for all patients exhibiting signs and symptoms of ACS