SECTION: Adult Cardiovascular Emergencies

PROTOCOL TITLE: Medical – ST Elevation Myocardial Infarction (STEMI)

REVISED: 06/2017

Protocol 2-2

ACS / AMI

OVERVIEW:

Prompt diagnosis and treatment offers the greatest potential benefit for myocardial salvage in the first hours of STEMI; and early, focused management of unstable angina and NSTEMI reduces adverse events and improves outcome. Thus, it is imperative that healthcare providers recognize patients with potential ACS in order to initiate the evaluation, appropriate triage, and management as expeditiously as possible; in the case of STEMI, this recognition also allows for prompt notification of the receiving hospital and preparation for emergent reperfusion therapy. Potential delays to therapy occur during 3 intervals: from onset of symptoms to patient recognition, during prehospital transport, and during emergency department (ED) evaluation.

HPI	Signs and Symptoms	Considerations
• Age • Medications • PMH (MI, Angina, DM, HTN) • Allergies (ASA, Morphine) • Recent physical exertion • Onset • Quality (crushing, sharp, dull, constant, etc.) • Region / Radiation / Referred • Severity (1 - 10) • Time (duration / repetition) • Viagra®, Levitra®, Cialis®	• CP (pressure, aching, and / or tightness) • Location (sub-sternal, epigastric, arm, jaw, neck, shoulder) • Radiation of pain • Pale, diaphoresis • Shortness of breath • Nausea / vomiting, dizziness • Non-specific illness	• Trauma vs. Medical • Angina vs. MI • Pericarditis • Pulmonary embolism • Asthma / COPD • Pneumothorax • Aortic dissection or aneurysm • GI reflux, hiatal hernia • Esophageal spasm • Chest wall injury or pain • Pleural pain

Lead	Elevation	Reciprocal Depression
SEPTAL	**V1, V2**	**NONE**
ANTERIOR	**V3, V4**	**NONE**
ANTERO-SEPTAL	**V1, V2, V3, V4**	**NONE**
LATERAL	**I, aVL, V5, V6**	**II, III, aVF**
ANTERO-LATERAL	**I, aVL, V3, V4, V5, V6**	**II, III, aVF**
INFERIOR	**II, III, aVF**	**I, aVL**
INFERO-LATERAL	**II, III, aVF, V5, V6**	**I, aVL, V1, V2**
POSTERIOR	**NONE**	**V1, V2, V3, V4**

Protocol 2-2 Continued

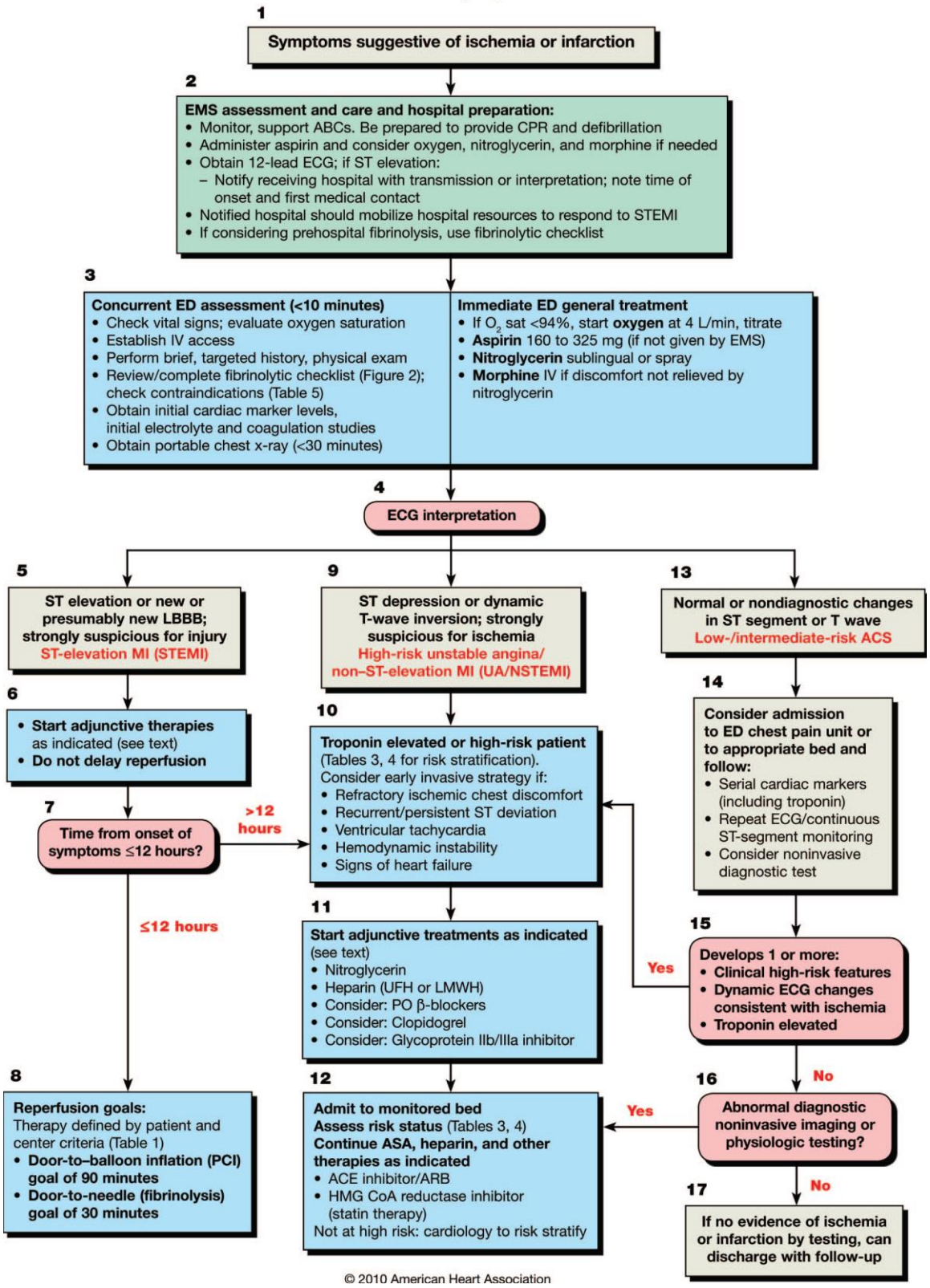
ACS / AMI

	EMR	EMT	A	I	P
1. Perform general patient management.	•	•	•	•	•
2. Support life-threatening problems associated with airway, breathing, and circulation.	•	•	•	•	•
3. Administer oxygen to maintain SPO_2 94 - 99%	•	•	•	•	•
4. Establish an IV of normal saline per patient assessment.			•	•	•
5. Obtain 12 lead ECG.		•	•	•	•
a. If 12 lead reads, "***AMI***, the patient should be immediately transported to the closest PCI capable hospital. AIC must notify receiving facility ASAP.		•	•	•	•
b. If 12 lead is consistent with STEMI, and capability exists, transmit 12 lead to PCI center.		•	•	•	•
6. Transport immediately.		•	•	•	•
a. If actual transport time is greater than 45 minutes to a PCI center, consider use of aeromedical.		•	•	•	•
7. Place patient on cardiac monitor and monitor pulse oximetry.				•	•
8. If no contraindications, administer ASA 324 mg PO.	•	•	•	•	•
9. If confirmed STEMI and/or significant cardiac history, administer ***NITROGLYCERIN*** 0.4 mg SL. If the pain persists and B/P > 100 mmHg systolic, repeat nitroglycerin 0.4 mg SL in 3 to 5 minutes (up to total of three SL doses).			•	•	•
10. If pain persists, refer to *General – Pain Control* protocol.	•	•	•	•	•
11. Transport and perform ongoing assessment as indicated.		•	•	•	•

PEARLS:

1. Recognized PCI centers in the ODEMSA region include (in alphabetical order): Chippenham Hospital, Henrico Doctors' Hospital (Forest), Memorial Regional Medical Center, Southside Regional Medical Center, St. Francis Medical Center, St. Mary's Hospital, VA McGuire's Medical Center, VCU Medical Center.
2. In right-sided infarctions, a prophylactic fluid bolus will assist with pre-load.
3. Decreasing time from diagnosis to definitive treatment (cath) is essential.
4. Designated Emergency Percutaneous Coronary Intervention Centers will have the service available on a 24 hrs per day basis and will not divert STEMI patients unless there is a catastrophic event affecting hospital operations.
5. Patients who have had ROSC from a cardiac arrest and have an ECG consistent with a STEMI should be transported to the closest Emergency Percutaneous Coronary Intervention Center.

Acute Coronary Syndromes



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