

Notify the closest STEMI Receiving Center (SRC) as soon as STEMI is identified. Notification shall be in accordance with *MCG 1303* and include immediate ECG transmission initiated prior to contact.

1. Assess airway and initiate basic and/or advanced airway maneuvers prn (*MCG 1302*)
2. Administer **Oxygen** prn (*MCG 1302*)
3. Initiate cardiac monitoring (*MCG 1308*) ①
Assess cardiac rhythm and obtain 12-lead ECG ②
Transmit the ECG to the receiving SRC if STEMI is suspected (*MCG 1303*)
4. For patients with dysrhythmias, treat in conjunction with *TP 1212, Bradycardia* or *TP 1213, Tachycardia*
5. **Aspirin 325mg chewable tablets PO** if alert ③
6. For chest pain after 12-lead ECG:
Nitroglycerin 0.4mg SL prn ④ ⑤
Repeat every 5 min prn x2, total of 3 doses
Hold if SBP < 100mmHg or patient has taken sexually enhancing medication within 48hrs
7. Establish vascular access (*MCG 1375*)
8. For persistent chest pain after, or contraindication to, nitroglycerin: refer to *MCG 1345, Pain Management* ⑥
9. For nausea or vomiting:
Ondansetron 4mg ODT/IV/IM, may repeat x1 in 15 min prn
10. For poor perfusion (*MCG 1355*):
Normal Saline 1L IV rapid infusion
Reassess after each 250 mL increment for evidence of volume overload (pulmonary edema); stop infusion if pulmonary edema develops

For persistent poor perfusion, treat in conjunction with *TP 1207, Shock/Hypotension*

SPECIAL CONSIDERATIONS

- ① Patients may have a myocardial infarction (MI) with or without ST elevations on the ECG. You should review and interpret the ECG; the software interpretation is not always accurate. Include your impression of the patient and interpretation of the ECG when discussing destination decision with the base. Patients with ST elevation myocardial infarction (STEMI) require emergent treatment with percutaneous coronary intervention (PCI) in the catheterization lab to improve survival, so they require field routing directly to a STEMI center (SRC). If artifact inhibits your ability to interpret the ECG, the software cannot read it either. ECGs of such poor quality as to inhibit interpretation should not be used to determine destination and should be repeated.
- ② Obtain the ECG as soon as possible with initial vital signs. For patients in whom you have a high clinical suspicion for STEMI and the initial ECG does not meet STEMI criteria, you should repeat the ECG prior to transport and at any point that the patient's clinical status changes. Repeating the ECG increases your chances of detecting an evolving STEMI. Consider repeating the ECG in cases where you have a low clinical suspicion and the initial ECG software interpretation is STEMI, particularly if there is artifact present that may affect the interpretation.
- ③ Aspirin is the most important medication for patients with acute myocardial infarction to improve outcomes and should be administered as soon as possible. All patients with cardiac chest pain should receive aspirin unless contraindicated due to active gastrointestinal bleeding or allergy, even if they already took aspirin at home or are prescribed anticoagulant medications. While there are other causes of chest pain that can present similarly to an MI, including aortic dissection, these causes are rare and the benefit of aspirin for patients with MI outweighs the risks of administration.
- ④ Nitroglycerin can cause a severe drop in blood pressure in some patients and, while useful for treatment of pain, it has not been shown to improve survival. Use caution in patients with borderline or relative hypotension (patients with history of hypertension or taking antihypertensive medications and SBP < 110) and/or patients with abnormal heart rate < 50 or > 120. It is acceptable to hold nitroglycerin in these patients. Inferior MI alone is not a contraindication to nitroglycerin.
- ⑤ Morphine or fentanyl is preferred for the treatment of cardiac chest pain that does not respond to nitroglycerin or when nitroglycerin is contraindicated; do not administer ketorolac. Morphine or fentanyl is also preferred over nitroglycerin to treat pain in patients with suspected aortic dissection. The classic presentation of acute aortic dissection is acute onset "tearing" chest pain radiating to the back. Other findings that raise concern for aortic dissection are chest pain associated with new focal neurologic abnormalities or with a difference in SBP of 20mmHg or more between arms. The primary treatment goal in the alert patient is to decrease heart rate by alleviating pain and anxiety. These patients are most often hypertensive. Treat hypotension only if SBP is < 90mmHg in both arms or if patient has other signs of poor perfusion.