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Note: For emergencies occurring on MD Anderson campus locations not supported by the Code Blue Team, contact 911 (Code Blue Team vs. 911 Response Map)
**PRESENTATION AND ASSESSMENT**

*Note: Patient should be transferred out within 30 minutes of initial presentation [door in-door out (DIDO)] since the “door to device time” for STEMI is less than 120 minutes*

- Complete the following within 10 minutes:
  - STAT EKG (12-lead)
  - EKG technician to deliver to EC physician for reading

- Complete the following within 10 minutes:
  - STAT EKG (12-lead)
  - EKG technician to notify Cardiology of STEMI reading

- **Patient has STEMI per EC physician?**
  - Yes
    - Cardiology to contact Case Manager for transfer to outside hospital
    - Case Manager to arrange ambulance transport
    - Case Manager to contact outside hospital for acceptance of STEMI patient
    - Transfer patient to outside hospital (see Page 4)
  - No
    - **Patient has STEMI per Cardiology?**
      - Yes
        - Cardiology to determine disposition to a higher level of care
        - See Page 3 for Suspected ACS
      - No
        - EC physician to contact Cardiology to determine disposition to a higher level of care
        - See Page 3 for Suspected ACS

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**DISPOSITION**

- EC physician to contact Case Manager for transfer to outside hospital
- Cardiology to contact Case Manager for transfer to outside hospital
- Case Manager to arrange ambulance transport
- Case Manager to contact outside hospital for acceptance of STEMI patient
- Cardiology to contact primary team within 10 minutes regarding prognosis, suitability for intervention/transfer and resuscitation status (should not delay transfer)

- EC physician to contact Case Manager for transfer to outside hospital
- Cardiology to determine disposition to a higher level of care
- See Page 3 for Suspected ACS

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1 EC physician to perform the following only if able to complete within 10 minutes; DO NOT DELAY TRANSFER

- Aspirin 162-325 mg PO once
- P2Y12 inhibitor loading dose:
  - Clopidogrel 600 mg PO once
  - Ticagrelor 180 mg PO once
- Anticoagulation-unfractionated heparin (UFH) with additional boluses if needed to maintain therapeutic activated clotting time (ACT)
- Contact Cardiology for confirmation of STEMI
- Contact primary team regarding prognosis, suitability for intervention/transfer and resuscitation status

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**ACS = acute coronary syndrome  
STEMI = ST-elevation myocardial infarction**
**PRESENTATION AND ASSESSMENT**

- **Suspected Acute Coronary Syndrome (ACS)**
- EKG
- **STAT** medical management
  - Aspirin 162-325 mg PO once
  - P2Y12 inhibitor loading dose: Clopidogrel 600 mg PO once or Ticagrelor 180 mg PO once
  - Anticoagulation with unfractionated heparin (UFH) or low molecular weight heparin (LMWH)
- **STAT** consult to Cardiology
- **STAT** cardiac panel (CK, CKMB, troponin T) and pro NT-BNP
- Continuous cardiac monitoring

**DISPOSITION**

- Early invasive strategy
  - Cardiology to assess patient and start medical management
  - Cardiology to discuss with primary team regarding prognosis, suitability for intervention/transfer and resuscitation status
  - Cardiology to determine disposition

- Ischemia-guided therapy
  - Medical management per Cardiology

- Transfer to outside hospital for higher level of care (see Appendix A)
  - Cardiology to contact Case Manager
  - Case Manager to arrange ambulance transport
  - Case Manager to contact outside hospital for acceptance

- Final disposition per Cardiology
  - Diagnostic catheterization at MD Anderson within 48 hours of presentation

**Disclaimer:** This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson’s specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient’s care.
EMERGENCY TRANSFER ADMINISTRATIVE PROCESS

Disposition

Yes

- Case Management or OSA will:
  - Identify and coordinate appropriate transportation service to be used
  - Complete the Memorandum of Transfer
  - Ensure proper documentation accompanies patient
  - Notify appropriate nursing unit when the approval to transfer has been obtained along with information such as address and phone numbers for calling clinical report

No

- Inform patient/family that care will continue at MD Anderson
- Manage patient as clinically indicated

1 Contact Case Management or OSA via operator
2 Refer to UTMDACC Institutional Transfer Policy (#CLN0614)
3 Discuss with Attending Physician regarding preference for receiving hospital based on clinical scenario. See Appendix B: Texas Medical Center (TMC) Hospital Contact Information. If transfer approval is not promptly obtained, Case Management to contact alternate hospitals to avoid delay.
4 Documentation:
   - “Face sheet”
   - Medical records to include a current reconciled medication list and transfer orders per primary care team
   - Others as appropriate
APPENDIX A: TIMI (Thrombolysis in Myocardial Infarction) Score

TIMI score calculation (1 point for each):
- Age greater than or equal to 65 years old
- Aspirin use in the last 7 days (patient experiences chest pain despite aspirin use in past 7 days)
- At least 2 angina episodes within the last 24 hours
- ST changes of at least 0.5 mm in contiguous leads
- Elevated serum cardiac biomarkers
- Known coronary artery disease (CAD) (coronary stenosis greater than or equal to 50%)
- At least 3 risk factors for CAD, such as:
  - Hypertension greater than 140/90 mmHg or on anti-hypertensives
  - Current cigarette smoker
  - Low HDL cholesterol (less than 40 mg/dL)
  - Diabetes mellitus
  - Family history of premature CAD:
    - Male first-degree relative or father younger than 55 years old
    - Female first-degree relative or mother younger than 65 years old
APPENDIX B: Texas Medical Center (TMC) Hospital Contact Information

<table>
<thead>
<tr>
<th>Memorial Hermann TMC</th>
<th>CHI St. Luke’s TMC</th>
<th>Methodist TMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Transfers:</td>
<td>Transfer Center (713) 704-2500</td>
<td>Transfer Center (832) 355-2233</td>
</tr>
</tbody>
</table>

Additional contacts:

<table>
<thead>
<tr>
<th>Memorial Hermann TMC</th>
<th>CHI St. Luke’s TMC</th>
<th>Methodist TMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACS/STEMI</td>
<td>On-call STEMI fellow via page operator (832) 355-4146 On-call STEMI attending via transfer center (888) 875-1434 Catheterization Lab (832) 355-6650 Dr. George Younis (Catheterization Lab Med Director) (832) 816-7324</td>
<td>On-call STEMI attending via page operator (713) 790-2201 Catheterization Lab (713) 441-5292</td>
</tr>
<tr>
<td>Fax EKG to (713) 704-0665 (for EC patients)</td>
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</tbody>
</table>
SUGGESTED READINGS


MD Anderson Institutional Policy #CLN0614 – Transfer of patients to, from and within MD Anderson Cancer Center Policy
Cardiac Emergencies - Triage/Transfer Process

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Department of Clinical Effectiveness V1  
Approved by the Executive Committee of the Medical Staff on 03/26/2019