# Triage, Stabilization and Transfer Process for Individuals with Trauma

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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

<table>
<thead>
<tr>
<th>Patient, visitor, or employee with blunt or penetrating trauma</th>
<th>Acute Cancer Care Center</th>
<th>Hemodynamic or respiratory compromise¹ or altered mental status²?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Cancer Care Center</td>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
</tr>
<tr>
<td>Inpatient</td>
<td><img src="image3" alt="Diagram" /></td>
<td><img src="image4" alt="Diagram" /></td>
</tr>
<tr>
<td>See Page 2</td>
<td><img src="image5" alt="Diagram" /></td>
<td><img src="image6" alt="Diagram" /></td>
</tr>
<tr>
<td>Outpatient/MD Anderson public spaces</td>
<td><img src="image7" alt="Diagram" /></td>
<td><img src="image8" alt="Diagram" /></td>
</tr>
<tr>
<td>See Page 3</td>
<td><img src="image9" alt="Diagram" /></td>
<td><img src="image10" alt="Diagram" /></td>
</tr>
</tbody>
</table>

**Note:** Comorbid factors may increase the severity of injury

- Age ≤ 5 or > 70 years
- Significant cardiac or respiratory disease
- Diabetes, cirrhosis, end-stage renal disease, morbid obesity
- Bleeding disorders or currently taking anticoagulants

¹ Hemodynamic or respiratory compromise is defined as: SBP < 90 mmHg, respiratory rate < 10 bpm or > 29 bpm

² Altered mental status is defined as Glasgow Coma Scale (GCS) < 14 or motor score ≤ 5 (see Appendix A: Glasgow Coma Scale (GCS))

³ If patient is not stabilized prior to transferring to another facility, continue to pursue a transfer if the individual requests the transfer or the expected benefits outweigh the increased risks of the transfer (See MD Anderson Institutional Policy #CLN1280 – Emergency Medical Screening Examination Stabilization, and Appropriate Transfers Policy)

## DISPOSITION

### Yes

- Transfer to outside hospital for higher level of care [see Appendix B: Texas Medical Center (TMC) Hospital Contact Information]

### No

- Manage individual as clinically indicated

### A

- Transfer individual
- Stabilized?³
- Yes
- See Box A below
- No
- Emergency transfer administrative process, see Page 4

### Medical management and disposition per Acute Cancer Care Center and/or Primary teams as indicated

### Evidence of high-energy event³?

- Yes
- ![Diagram](image13)
- No
- ![Diagram](image14)

### Evidence of anatomical injury⁴?

- Yes
- ![Diagram](image15)
- No
- ![Diagram](image16)

### Evidence of high-energy event³?

- Yes
- ![Diagram](image17)
- No
- ![Diagram](image18)

- Crushed, degloved, or mangled extremity
- Amputations proximal to wrist and ankle
- Pelvic fractures

- Paralysis or suspected spinal cord injury
- Flail chest
- Long bone fracture

- Auto vs. pedestrian/bicyclist thrown, run over, or with significant (> 20 mph) impact
- High-energy electrical injury
- Burns > 10% total body surface area and/or inhalation injury
- Tender or rigid abdomen

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### PRESENTATION AND ASSESSMENT

- **Hemodynamic or respiratory compromise** or altered mental status?
  - Yes: Call Code Blue Team (713-792-7099)
  - No: Call MERIT (713-792-7090) Notify Primary Team

- Evidence of anatomical injury?
  - Yes: Maintain airway with cervical spine stabilization as indicated; Transfer to ICU and notify Primary Team; Consider surgical team consult (General Surgery, Thoracic Surgery, Neurosurgery and/or Orthopedics); Imaging as determined by medical teams
  - No: Manage patient as clinically indicated

### DISPOSITION

- **Stabilized**?
  - Yes: Transfer to outside hospital for higher level of care [see Appendix B; Texas Medical Center (TMC) Hospital Contact Information]
  - No: Manage patient as clinically indicated

- Emergency transfer administrative process, see Page 4

### Notes:

- Comorbid factors may increase the severity of injury:
  - Age \( \leq 5 \) or \( > 70 \) years
  - Significant cardiac or respiratory disease
  - Pregnancy
  - Diabetes, cirrhosis, end-stage renal disease, morbid obesity
  - Immunosuppression
  - Bleeding disorders or currently taking anticoagulants

1. Hemodynamic or respiratory compromise is defined as: SBP < 90 mmHg, respiratory rate < 10 bpm or > 29 bpm
2. Altered mental status is defined as Glasgow Coma Scale < 14 or motor score ≤ 5 [see Appendix A; Glasgow Coma Scale (GCS)]
3. If patient is not stabilized prior to transferring to another facility, continue to pursue a transfer if the individual requests the transfer the expected benefits outweigh the increased risks of the transfer (See MD Anderson Institutional Policy #CLN3280 – Emergency Medical Screening Examination Stabilization, and Appropriate Transfers Policy)
4. Anatomical injury includes the following:
   - Crushed, degloved, or mangled extremity
   - Amputation proximal to wrist and ankle
   - Pelvic fractures
   - Paralysis or suspected spinal cord injury
5. Evidence of high-energy event includes the following:
   - Falls > 20 feet (6 meters) in adults and > 10 feet (3 meters) or 2-3 times height in children
   - High-risk auto crash:
     - Intrusion > 12 inches occupant site or 18 inches any site
     - Ejection (partial or complete) from vehicle
   - Death in same passenger compartment
   - Auto vs. pedestrian/bicyclist thrown, run over, or with significant (> 20 mph) impact
   - High-energy electrical injury
   - Burns > 10% total body surface area and/or inhalation injury
   - Tender or rigid abdomen

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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

Outpatient/MD Anderson public spaces

- Call Code Blue Team (713-792-7099)

Hemodynamic or respiratory compromise\(^1\) or altered mental status?\(^2\)

- No

Evidence of anatomical injury?\(^3\)

- Yes

Maintain airway with cervical spine stabilization as indicated

- Yes

Stabilized?\(^4\)

- Yes

Transfer individual

- See Box A below

- No

Manage individual as clinically indicated

A

Evidence of high-energy event?\(^5\)

- Yes

Transfer to outside hospital for higher level of care [see Appendix B: Texas Medical Center (TMC) Hospital Contact Information]

- No

Evidence of high-energy event?\(^5\)

- Yes

Medical management and disposition per Code Blue and/or Primary teams as indicated

- No

Emergency transfer administrative process, see Page 4

DISPOSITION

Note: Comorbid factors may increase the severity of injury:

- Age ≤ 5 or > 70 years
- Significant cardiac or respiratory disease
- Pregnancy
- Diabetes, cirrhosis, end-stage renal disease, morbid obesity
- Immunosuppression
- Bleeding disorders or currently taking anticoagulants

1. For outpatient areas not covered by Code Blue services, call 911 and provide supportive care until EMS arrives
2. Hemodynamic or respiratory compromise is defined as: SBP < 90 mmHg, respiratory rate < 10 bpm or > 29 bpm
3. Altered mental status is defined as Glasgow Coma Scale < 14 or motor score ≤ 5 [see Appendix A: Glasgow Coma Scale (GCS)]
4. If patient is not stabilized prior to transferring to another facility, continue to pursue a transfer if the individual requests the transfer or the expected benefits outweigh the increased risks of the transfer (See MD Anderson Institutional Policy #CLN3180 – Emergency Medical Screening Examination Stabilization, and Appropriate Transfers Policy)
5. Anatomic injury includes the following:
   - Open or depressed skull fracture
   - Penetrating injury to head, neck, torso, and/or extremities proximal to elbow and knee
   - Pelvic fractures
6. Evidence of high-energy event includes the following:
   - Falls > 20 feet (6 meters) in adults and > 10 feet (3 meters) or 2-3 times height in children
   - High-risk auto crash:
     - Intrusion > 12 inches occupant site or 18 inches any site
     - Ejection (partial or complete) from vehicle
     - Death in same passenger compartment
   - Auto vs. pedestrian/bicyclist thrown, run over, or with significant (> 20 mph) impact
   - High-energy electrical injury
   - Burns > 10% total body surface area and/or inhalation injury
   - Tender or rigid abdomen

Paralysis or suspected spinal cord injury
- Flail chest
- Long bone fracture

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EMERGENCY TRANSFER ADMINISTRATIVE PROCESS

Acute Cancer Care Center/Inpatient

- Attending Physician will notify Case Management or Off Shift Administrator (OSA) (outside of business hours) to coordinate acceptance at outside hospital

Outpatient/MD Anderson public spaces

- Code Blue team contacts EMS for transfer
- Code Blue team to notify outpatient area of patient disposition
- Outpatient team to notify available family and primary team as appropriate

EMS = Emergency Medical Services

1 Contact Case Management or OSA via operator
2 Refer to MD Anderson Institutional Policy #CLN0614: Transfer of Patients to, from and Within MD Anderson Cancer Center Policy
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

Transfer accepted?

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
  - Inform patient and family of accepted transfer

No

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

Case Management or OSA will:

- Attend Physician will notify Case Management or OSA via operator
- Refer to MD Anderson Institutional Policy #CLN0614: Transfer of Patients to, from and Within MD Anderson Cancer Center Policy
- 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.
- Documentation:
  - “Face sheet”
  - Medical records to include a current reconciled medication list and transfer orders per primary care team
  - Others as appropriate
APPENDIX A: Glasgow Coma Scale (GCS)¹

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye Opening Response</strong></td>
<td>Spontaneous</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>To verbal stimuli, command, speech</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>To pain only (not applied to face)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>No response</td>
<td>1</td>
</tr>
<tr>
<td><strong>Verbal Response</strong></td>
<td>Oriented</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Confused conversation, but able to answer questions</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Inappropriate words</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Incomprehensible speech</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>No response</td>
<td>1</td>
</tr>
<tr>
<td><strong>Motor Response</strong></td>
<td>Obeys commands for movement</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Purposeful movement to painful stimulus</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Withdraws in response to pain</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Flexion in response to pain</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Extension in response to pain</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>No response</td>
<td>1</td>
</tr>
</tbody>
</table>

GCS is obtained by adding the score from each parameter.

APPENDIX B: Texas Medical Center (TMC) Hospital Contact Information

<table>
<thead>
<tr>
<th>For Transfers:</th>
<th>Memorial Hermann TMC</th>
<th>Ben Taub Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>For Transfers:</strong></td>
<td>Transfer Center (713) 704-2500</td>
<td>Transfer Center (713) 873-8601</td>
</tr>
</tbody>
</table>

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**SUGGESTED READINGS**


MD Anderson Institutional Policy #CLN0614 – Transfer of patients to, from and Within MD Anderson Cancer Center Policy

MD Anderson Institutional Policy #CLN3280 – Emergency Medical Screening Examination Stabilization, and Appropriate Transfers Policy


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DEVELOPMENT CREDITS

This practice consensus statement is based on majority opinion of the Emergent Triage/Transfer Process workgroup experts at the University of Texas MD Anderson Cancer Center for the patient population. These experts included:

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