

Full Trauma Team Activation (FTTA-L1) - Field

AC-1. Airway:

- Intubated or Attempting Intubation
- Airway Compromise (see interventions below)
- Need for emergent airway

AC-2. Breathing:

- Respiratory Compromise
- Respiratory Rate / O2 Sat
 1. Age 16–64 years, RR < 10/min > 30/min, O2 sat RA < 88%, abnormal effort
 2. Age ≥ 65 years, RR < 10/min > 30/min, O2 sat RA < 88%, abnormal effort
- Supported Ventilation (BVM, OPA)

AC-3. Circulation:

- Traumatic arrest
- Hemodynamic instability
 1. Age 0–9 years, SBP ≤ 70mm Hg + (2 x age in years)
 2. Age 10–64 years, SBP ≤ 90 mmHg
 3. Age ≥ 65 years, SBP ≤ 110 mmHg (GERIATRIC)
- Adults / Geriatric: HR > SBP (aka Shock Index >1.0)
- Bleeding requiring tourniquet
- Signs of active hemorrhage/expanding hematoma
- Pulseless extremity

AC-4. Disability:

- Age 0 – 64 years: GCS <9 with mechanism attributable for trauma
- Age ≥ 65 years: GCS < 12 **AND** on blood thinners (GERIATRIC) with signs of trauma
- Paraplegia or Quadriplegia with evidence of trauma

AC-5. Highly Concerning Mechanisms / Exam Findings:

- Pregnancy > 20 weeks gestation with evidence of traumatic injury (*see Trauma in Pregnancy CPG)
- Penetrating injury (GSW or Stab wound) to the head, neck, torso and proximal to elbow/knee
- Amputation proximal to knee or elbow
- Severe Accidental Hypothermia (T < 28 °C)
- More than 5 activated trauma victims from 1 event (Disaster)

AC-6. Trauma-related Interventions:

- Airways Support including:
 1. ET Intubation
 2. BVM, OPA
- Cricothyrotomy (needle or surgical)
- Needle Decompression of chest
- Tourniquet
- Blood Administration

Partial Trauma Team Activation (PTTA-L2) - Field

AC-1.

Airway:

- No compromise

AC-2.

Breathing:

- No compromise

AC-3.

Circulation:

- No Compromise

AC-4.

Disability:

- GCS \leq 12
- Suspected spinal cord injury

AC-5.

Concerning Mechanisms /

Exam Findings with Signs of Trauma (laceration, bruising or deformity):

- Falls from height:
 - Age 0-15 years, >10 feet
 - Age >15 years, > 20 feet
- 2 or more Long bone deformities
- Open fractures
- Chest/neck crepitus
- Bruising to the Abdomen / Pelvis in the setting of blunt abdominal trauma
- Auto vs pedestrian/bicycle (>20mph)
- Death of occupant in same passenger compartment
- Hanging / Drowning (with risk for injury)
- Explosion (enclosed) / Blast Mechanism
- Burns:
 - >10% TBSA (calculating only 2nd and 3rd degree)
 - High energy electrical injury (>500V, home outlets are 110V or 220V)
 - Concern for Inhalational injury without current airway compromise

ED Trauma Team Consult:

Current MMC ED Patient

Nonactivated Field Trauma, Post ED-to-ED Transfer, Patient currently hospitalized at MMC

1. Trauma consults are any patients already present in the ED where FTA and PTA criteria were not initially met, but post ED evaluation Trauma Team response is requested.

Request for reevaluation / reengagement:

2. Patients with a traumatic mechanism seen by the ED or who have been previously evaluated by the Trauma Team and need to reevaluation by Trauma.

Inpatient Trauma Team Consult:

Inpatients that experience traumatic injury may require evaluation by the trauma in rare circumstance.

Should there be concern for significant injury the primary admitting team may request an Inpatient Trauma Consult. This consult, like all others, must be paged out through REMIS.

Full Trauma Team Activation (FTTA-L1) - Transfer

AC-1. Airway:

- Intubated
- Airway Compromise

AC-2. Breathing:

- Respiratory Compromise
- Need for emergent airway

AC-3. Circulation:

- ROSC - Post Traumatic Arrest
- Hemodynamic instability
 - Age 0–9 years SBP \leq 70mm Hg + (2 x age in years)
 - Age 10–64 years SBP \leq 90 mmHg
 - Age \geq 65 years SBP \leq 110 mmHg (GERIATRIC)
- Adults / Geriatric: HR > SBP (aka Shock Index >1.0)
- Received or Receiving Blood Transfusion
- Bleeding requiring tourniquet

AC-4. Disability:

- Age 0 – 64 years: GCS <9 with mechanism attributable for trauma
- Age \geq 65 years: GCS < 12 **AND** on blood thinners (GERIATRIC) with signs of trauma
- Paraplegia or Quadriplegia with evidence of trauma

AC-5. Highly Concerning Mechanisms / Exam Findings:

- Amputation proximal to knee or elbow
- Pregnancy > 20 weeks gestation with evidence of traumatic injury (*see Trauma in Pregnancy CPG)
- Penetrating injury (GSW or Stab wound) to the head, neck, torso and proximal to elbow/knee

AC-6. Need for Trauma-related Interventions:

- Airways Support including:
 - ET Intubation

- BVM, OPA
- Cricothyrotomy
- Tourniquet
- Blood administration
- Stabilizing operation at OSF prior to transport

Partial Trauma Team Activation (PTTA-L2) - Transfer

1. Any patient accepted for transfer by the trauma service attending not meeting FTT Transfer Criteria, this excludes the ED-to-ED transfers (as those are not accepted by the trauma attending and require acceptance / approval from the ED attending physician).

ED to ED Transfer

Reserved for patient with unclear need for trauma service evaluation / intervention. Examples include:

1. Rhabdomyolysis of unclear etiology (found down versus trauma)
2. Metabolic encephalopathy versus head injury
3. Syncope with uncertain fall history
4. Hemorrhagic stroke versus trauma (patient found down without evidence of trauma)
5. Concern for extremity compartment syndrome of unclear etiology

Trauma Paging Script

L1 -FTTA -FT:

- L1 FT, ETA (time in min), age, gender, mechanism, injuries/concern, Interventions if applicable, Full VS, GCS, - AC# 1-6

L1 - FTTA -TT:

Initial Expectant Page:

- L1 TT, ETA (time in hours/min), age, gender, mechanism, injuries/concern, Interventions if applicable, patient name, sending facility, sending doctor, accepting trauma attending

Update / Arrival Page:

- L1 TT, ETA (time in min), age, gender, patient name, sending facility name, s/p mechanism, injuries/concern, Interventions if applicable, clinical updates / changes enroute, Full VS, GCS

L2 -PTTA- FT:

- L2 FT, ETA (time in min), age, gender, mechanism, injuries/concern, Interventions if applicable, Full VS, GCS, - AC# 1-5

L2- PTTA -TT:

Initial Page:

- L2 TT, ETA (time in hours/min), age, gender, mechanism, injuries/concern, Interventions if applicable, patient name, sending facility, sending doctor, accepting trauma attending

Arrival Page:

- L2 TT, ETA (time in min), age, gender, patient name, sending facility name, s/p mechanism, injuries/concern, Interventions if applicable, clinical updates / changes enroute, Full VS, GCS

ED Trauma Consult – Location of Care is ED:

- **Two Options:**
 - Stat ED-Consult, ED Room, patient name, injuries/concern, requesting provider
 - Response time same as Full Activation (see grid)
 - Routine ED-Consult, ED Room, patient name, injuries/concern, requesting provider
 - Response time same as Partial Activation (see grid)

IP Trauma Consult – Inpatient (non-ED) Location:

- **Two Options:**
 - Stat IP-Consult, Patient Room, patient name, injuries/concern, requesting provider
 - Response time same as Full Activation (see grid)
 - Routine IP-Consult, Patient Room, patient name, injuries/concern, requesting provider
 - Response time same as Partial Activation (see grid)

Additional Paging Guidance

Cancel Activation:

- **Cancel Activation page sent in error**
 - **Cancel followed by previous page info**
- **May also occur prior to patient arrival as EMS information evolves and patient no longer meets activation criteria.**
 - **Cancel, patient no longer meets AC - followed by previous page info**

Stand-Down:

- **Applicable to FTs only**
- **Post-Arrival Standdown**
 - **Follows the guidance of the TMD**
 - **Required ED and TA discussion as well as TA documentation**

Direct Admit Paging:

- **Paged to the Partial Activation Group (Trauma or Burn) upon acceptance (so the patients are on the teams radar)**
- **Service pager notification on arrival**
 - **Given the arrival pathway, this may be by the admitting unit**

Non-injured / non-burn transfer or consult requests:

- **Handled via One-Call following traditional acceptance / notification guidelines.**



Trauma Team Activation Paging Grid

Field & Transfers		Attending	APPs	Residents	Ancillary
Full Trauma Activation (L1)	Adult Trauma (≥16 years)	ED Attending ¹ Trauma Surgery Attending ³	Trauma Surgery APPs ²	ED Residents ² Trauma Surgery Residents ²	Radiology Tech ² Respiratory Therapy ² ED RNs ² Patient Access ² Security Chaplin ED Pharmacist PI Team Member
	Pediatric Trauma & Pediatric Burns (<16 years)	ED Attending ¹ Pediatric Surgery Attending ³	Pediatric Surgery APPs ² Adult Trauma APPs ²	ED Residents ² Pediatric Surgery Resident ² Trauma Surgery Residents ²	
	Burn (≥16 years)	ED Attending ¹ Burn Attending ³	Burn APPs ²	ED Residents ² Burn Residents ²	
Partial Trauma Activation (L2)	Adult Trauma (≥16 years)	ED Attending ¹ Trauma Surgery Attending ⁴	Trauma Surgery APPs ²	ED Residents ² Trauma Surgery Residents ²	ED RNs ² Patient Access ²
	Pediatric Trauma & Pediatric Burns (<16 years)	ED Attending ¹ Pediatric Surgery Attending ⁴	Pediatric Surgery APPs ² Trauma Surgery APPs ²	ED Residents ² Trauma Surgery Residents ²	
	Burn (≥16 years)	ED Attending ¹ Burn Attending ⁴	Burn APPs ²	ED Residents ² Burn Residents ²	
Stat – ED or IP Consults	Adult Trauma	Trauma Surgery Attending ³	Trauma Surgery APPs ³	Trauma Surgery Residents ³	
	Pediatric Trauma	Pediatric Surgery Attending ³	Pediatric Surgery APPs ³ Adult Trauma APPs ³	Pediatric Surgery Resident ³ Trauma Surgery Residents ³	
	Burn	Burn Attending ³	Burn APPs ³	Burn Residents ³	
Routine – ED or IP Consults	Adult Trauma	Trauma Surgery Attending ⁶	Trauma Surgery APPs ⁵	Trauma Surgery Residents ⁵	
	Pediatric Trauma	Pediatric Surgery Attending ⁶	Pediatric Surgery APPs ⁵ Adult Trauma APPs ⁵	Pediatric Surgery Resident ⁵ Trauma Surgery Residents ⁵	
	Burn	Burn Attending ⁶	Burn APPs ⁵	Burn Residents ⁵	
ED-to-ED Transfer	NA	ED Attending ⁷	No initial response	No initial response	No initial response



- ¹ Upon arrival with appropriate pre-arrival notification
- ² Prior to arrival with adequate pre-arrival notification; not > 5 min
- ³ Prior to arrival with adequate pre-arrival notification; not > 15 minutes
- ⁴ Prior to arrival with pre-arrival notification; not > 2 hours
- ⁵ Bedside evaluation ≤ 30 minutes
- ⁶ ≤ 12 hours and prior to discharge
- ⁷ Per ED triage protocol

Clarifications:

1. All trauma activations and requests for consults must go through REMIS and be paged to the full team. When calls are received individually, redirection through REMIS (662-2950) is critical to maintaining the PI process.
2. Anesthesia does not respond to L1 activations. The floor walker and the OR desk do receive the notification and is available to come to trauma room by calling 662-4351 (floor walker) and 662-2241 (desk).
3. Adult Trauma Team Members (APPS and Residents) respond to trauma activations of all ages. This response is in support of the Pediatric Trauma Team. Adult Trauma APPs in attendance will not take the primary resuscitation role, however will likely initiate shared documentation.
4. Consults must be handled expeditiously to maintain flow in the ED. They are the responsibility of the respective team. Adult and Pediatric Trauma APPs respond to all levels of activations including consults. A bedside response by a primary member of the team is expected within 30 minutes. Calling prior to seeing the patient is not necessary.
5. Trauma response is not a single provider response, it involves the team. Once initial resuscitation is complete, we may reduce coverage to single credentialed provider.



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6. All activated Adult Trauma, Pediatric Trauma and Burn patients are expected to be triaged to a ED critical care room. Consults and ED-to-ED transfer patients may be triaged in accordance with standard ED triaging guidelines. Deviations from this process should be reported to Trauma PI and will be monitored via the PIPs program.
 - a. Stat ED Consults should be in a Critical Care Room, these fall into the Full Activation arrival guidelines.
7. Documentation of arrival time by the adult Trauma Surgery, Pediatric Surgery, and Burn patients is expected at the time of the initial evaluation for all activations. Standard 5.4 in [Resources for Optimal Care of the Injured Patient](#) (March 2022),
8. "UPGRADE" - If in the judgement of any team member the patient's injuries were under-activated in regard to their injury burden and more resources are needed, this may result in "UPGRADE" of the trauma team.
 - a. REMIS should be notified to send an "UPGRADE" notification to the appropriate level of activation.
 - b. Reporting at ACS morning report in order to track these events to manage under-triage.
9. "DOWNGRADE" - after arrival should be avoided.
10. "STAND DOWN" - If in the judgement of an Attendings (Surgeon or ED), a patient's injury is over-activated and out of proportion to their level of activation, this may result in "STAND DOWN" of the trauma team. Several criteria need to be met in this event:
 - a. An in-person conversation between the Surgery attending and ED attending
 - b. Documentation of surgeon arrival time with a brief note regarding the above conversation must be left at the time of the conversation. If no arrival time is documented, this is counted as no surgeon arrival which is accounted for as a failure to respond to an activation.
 - c. Notification to REMIS to page out "STAND DOWN" notice
 - d. Reporting at ACS morning report in order to track these events to manage over-triage.
11. "ED-to-ED" transfers - If in the judgement of an Attending (Adult Trauma, Pediatric Trauma and Burn) Surgeon, a patient's injury or condition at a referring hospital does not warrant evaluation by the trauma team but does need assessment at Maine Medical Center Emergency Department, this may result in "ED-to-ED" transfer. In this circumstance, the Attending Surgeon should request REMIS to contact the ED provider at MMC to facilitate a direct conversation regarding the nature and expectations of this transfer in order that the ED physician is aware of the patient's transfer.