DEPARTMENT OF HEALTH

Level 4 Trauma Hospital Criteria Crosswalk

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Institution 1.1	The board of directors, administration, and medical staff shall demonstrate a commitment to provide the resources and support necessary to sustain the trauma designation. This commitment shall be signed and dated within one year of designation expiration.	The following must be submitted with the designation application: • A signed hospital board resolution letter dated no more than one year prior to designation expiration A signed medical staff board resolution letter dated no more than one year prior to designation expiration	Hospital Board Resolution Medical Staff Resolution	Resolution should include language such as: "THEREFORE; BE IT RESOLVED that the board of directors of [HOSPITAL] acknowledges the commitment to adherence to the standards required for level [III or IV] trauma designation, as well as commitment to ensuring that the necessary personnel, facilities, and equipment are made available to support adherence to those standards." When using templates, be sure they are modified as appropriate including your hospital name and designation level. Evaluate the appropriate timeline to start this process, as it can take a while to cycle through meetings for the appropriate signature(s).

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Institution 1.2	The trauma program shall be established by the facility and represented on the official hospital organizational chart.	The following must be submitted with the designation application: An official hospital organizational chart	Organizational Chart	The facility's organizational chart should show where trauma "lives" in the facility in relation to other departments in the hospital. The organizational chart should represent job titles or positions, not specific people. The trauma program may be located within an existing department, such as the Department of Surgery or Emergency Department, but must appear on the official organizational chart.
Medical Director 2.1	The trauma medical director (TMD) shall be a physician whose job description defines his or her authority, roles, and responsibilities for the leadership of the trauma program, the trauma performance improvement process, and tertiary case review.	The following must be submitted with the designation application: • Start month and year for the TMD • Expiration date of current board certification • Current job description(s) should include: Role and responsibilities for: • Leadership of the trauma program • Trauma performance improvement Tertiary case review	Trauma Medical Director Job Description	The trauma medical director (TMD) position may also be titled trauma medical advisor if needed.

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Medical Director 2.2	The trauma medical director (TMD) must meet the same trauma training requirements as the Emergency Physician.	The following must be submitted with the designation application: • The month and year of course completion for the TMD's last training course (ATLS or CALS) Clinician roster including the required educational and certification components	Clinician Roster Educational Resources website	There is no grace period for either ATLS or CALS training.

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Medical Director 2.3	The trauma medical director (TMD) may appoint another physician or advanced practice provider (APP) to serve as a co-medical director to assist in fulfilling the roles and responsibilities of the leadership of the trauma program, the trauma performance improvement process, and tertiary case review. If a co-medical director is appointed, the TMD must remain active in and responsible for all trauma program functions.	If the facility has appointed a co-medical director, the following must be submitted with the designation application: The name of the physician or advanced practice provider (APP) who has been assigned the co-medical director position Their start date (MONTH/YEAR) in the position A job description defining their roles and responsibilities for the trauma program and PI process	Trauma Medical Director Job Description	The co-medical director position may also be titled co-medical advisor if needed.
Medical Director 2.4	The co-medical director must meet the same trauma training requirement as the Emergency Department providers.	The following must be submitted with the designation application: The month and year of course completion for the co-medical advisor's last training course (ATLS or CALS) Clinician roster including the required educational and certification components	Clinician Roster Education Resources website	There is no grace period for either ATLS or CALS training.

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Program Manager 3.1	The trauma program manager (TPM) must be either a registered nurse or an allied health professional with emergency and trauma care experience. **3.1.1** The TPM job description must define the roles and responsibilities for the management and leadership of the trauma program and the trauma performance improvement process.	The following must be submitted with the designation application: • The name and credentials of the TPM position • Their start date (Month/Year) in the position • The TPM job description describing all trauma program roles and responsibilities, including the performance improvement process	Trauma Program Manager job description	The TPM job description will define the roles and responsibilities related to the leadership of the trauma program, including trauma performance improvement. The trauma program manager position may also be titled trauma program coordinator if needed.

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Program Manager 3.2	If the trauma program manager (TPM) is not a registered nurse, a registered nurse must assist with: 3.2.1 Primary review of trauma care provided in all areas of the hospital 3.2.2 Function as a liaison between the trauma program and the nursing staff	The following must be submitted with the designation application: • The name and credentials of the registered nurse assisting the TPM • Their start date (Month/Year) in the position		The liaison should assist with follow-up/investigation, education, etc. between the trauma program and nursing staff.

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Program Manager 3.3	The trauma program manager (TPM) must have at least a portion of an FTE dedicated for trauma program responsibilities.	The following must be submitted with the designation application: • The amount of FTE the TPM has dedicated to the trauma program. This will be validated at the site visit.		The trauma program performance improvement process requires that sufficient resources are invested in order to maintain integrity and support the growth of the trauma program. The time allotted should be dedicated, protected, and uninterrupted. Dedicated time for trauma program managers* directly correlates with the success of a facility's trauma program. TPM workloads are extremely dependent on ED and admission volumes. Most successful Level 4 trauma programs have a minimum 0.2 FTE (smallest facilities) to 1.0 FTE (largest facilities), which increase rapidly with higher ED and admission volumes. This does not include FTE allocation for registry entry. Leadership of the trauma program, the PI process and other workload completion/timeliness must be monitored closely to judge whether the FTE assignment is adequate. PI and other workload completion and timeliness must be monitored closely to judge whether the FTE assignment should be increased. If the facility had immediate actions or multiple recommendations in the past designation cycle, re-evaluate the FTE allocation and responsibilities of the TPM. *Some TPM responsibilities may be delegated to other staff.

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Trauma Team Activation 4.1	The hospital must have a trauma team activation (TTA) policy, protocol or guideline that include: **4.1.1** A list of all team members expected to respond, which may include telemedicine providers. **4.1.2** The response time expectation for the team members, including in-house and off-site staff. **4.1.3** The physiologic, anatomic, and clinical indicators that, when met, require the activation of the trauma team. **4.1.4** The person(s) authorized to activate the trauma team.	The following must be submitted with the designation application: • A list of team member positions (not names) expected to respond to each level of trauma activation • The response time expectation for each of the team members listed above • The criteria for each level of activation • A list of positions authorized to activate the trauma team	L4 Single-Tier Trauma Team Activation (TTA) Guideline L4 Multi-Tier Trauma Team Activation (TTA) Guideline	When trauma activation criteria are changed, review and update any associated policy to ensure it matches. Provide nurse and provider education when any activation criteria or policy change occurs. Anatomic criteria refer to specific injuries and injury patterns. Physiologic criteria refer to disturbances in vital signs, such as low GCS, decreasing GCS, or hypothermia.
Trauma Team Activation 4.2	The trauma team activation (TTA) criteria must be readily available in locations where a trauma patient is likely to be initially encountered.	The following must be submitted with the designation application: • Trauma team activation poster Locations of posted criteria will be validated during the site visit.	L4 Single-Tier Trauma Team Activation (TTA) Guideline L4 Multi-Tier Trauma Team Activation (TTA) Guideline	Criteria should be readily available in the ED triage area, trauma bays, and any other ED rooms where injured patients may receive care. Ensure that any wall posters match the trauma activation policy, protocol, or guideline.

<table>
<tr>
<td>Trauma Team Activation
4.3</td>
<td>
The trauma team activation guideline, at a minimum, must include the following physiological and anatomical indicators:

4.3.1 Sustained GCS ≤10 secondary to trauma.

4.3.2 Respiratory distress, airway comprise, intubation, or respiratory rate outside of acceptable range (Table 1 Age Specific Respiratory)

Table 1: Age specific Respiratory
<table>
<tr><th colspan="2">Age Specific Respiratory</th></tr>
<tr><td>Age (years)</td><td>RR (per min.)</td></tr>
<tr><td>< 1</td><td><20 or >60</td></tr>
<tr><td>1-2</td><td><10 or >50</td></tr>
<tr><td>2-5</td><td><10 or >40</td></tr>
<tr><td>6- 14</td><td><10 or >30</td></tr>
</table>
4.3.3 Penetrating injury to the head, neck, chest, abdomen, or pelvis

4.3.4 Evidence of shock/hypoperfusion indicated by:

4.3.4.1 Systolic blood pressure < 90 mmHg at any time or age-specific hypotension in pediatrics (Table 2 Age-Specific Hypotension)
</td>
<td>
The following must be submitted with the designation application:

• TTA policy

Validated through case reviews and tour at the site visit
</td>
<td>
L4 Single-Tier Trauma Team Activation (TTA) Guideline

L4 Multi-Tier Trauma Team Activation (TTA) Guideline
</td>
<td>
Discretionary items are required to be listed on the TTA policy, but activation is at the decision of the ED provider

Additional considerations by the ED provider may include:

• Age (pediatric (<5) and elderly (>65 years old)
• Multiple Co-morbidities
• Suspected inhalation injury
• Mechanism of Injury:
  ○ MVC with ejection of MVC with death of an occupant
  ○ Separation of rider from motorized device or large animal
  ○ Pedestrian or cyclist struck by vehicle and thrown

Concern for blunt thoraco-abdominal injury
</td>
</tr>
</table>

Trauma Team Activation 4.3 (continued)

Table 2: Age specific hypotension

Age specific hypotension	
Age (years)	SBP (mmHg)
< 1	< 70
1 – 10	≤70 + (2 x age in years)

4.3.4.2 Persistent tachycardia in a patient <14 years old (Table 3 Age-Specific Tachycardia)

Table 3: Age specific tachycardia

Age specific tachycardia	
Age (years)	HR (bpm)
< 2	>180
2-5	>160
6- 14	>140

4.3.4.3 Positive eFAST exam

4.3.4.4 Provider impression of hypoperfusion (consider absent distal pulses, agitation, anxiety, confusion, delayed capillary refill, diaphoresis, pallor, persistent heart rate >120 in a patient >14 years old, tachypnea)

4.3.5 Arterial tourniquet indicated

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Trauma Team Activation 4.3 (continued)	4.3.6 Pregnancy > 20 weeks with vaginal bleeding or contractions attributed to a traumatic mechanism. 4.3.7 Burns >20% TBSA OR burns with potential need for airway management 4.3.8 Time sensitive orthopedic injuries OR severe orthopedic injury from high energy mechanism 4.3.8.1 Threatened limb: including extremity ischemia, crush injuries, concern for neurovascular compromise, amputation proximal to the wrist or ankle. 4.3.8.2 Dislocated knee or native hip 4.3.8.3 Open fracture or multiple long bone fractures 4.3.9 Suspected spinal cord injury with focal neurological deficit (i.e. numbness/tingling)			

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
General Surgery 5.1	If the hospital admits trauma patients as described in Section 10.2, a general surgeon must be continuously on-call and available to respond to the hospital within 60 minutes.	The following must be submitted with the designation application: • General surgeon on-call schedule (Up to 12 months' worth of schedules may be requested.) Response time from the surgeon must be documented and will be validated through case reviews at the site visit.		For the purposes of general surgeon coverage, "continuously" means seamless coverage at least 350 days of the calendar year. The surgeon must be available during the acute phase of care. Admission policy or similar document should reflect surgeon response time expectations.
Emergency Medicine 6.1	The emergency department must be continuously covered by a physician or advanced practice provider.	The following must be submitted with the designation application: ED schedule demonstrating continuous coverage (Up to 12 months' worth of schedules may be requested.)		

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Emergency Medicine 6.2	If the emergency department provider is off-site, an on-call schedule must identify the provider(s) covering the emergency department. When called, the provider must arrive at the bedside within 30 minutes of the patient's arrival.	The following must be submitted with the designation application: • The ED schedule showing physician and APP coverage. If an APP is the primary provider, their physician backup must be listed as well. If telehealth is utilized as back-up, this must be indicated on the ED schedule. (Up to 12 months' worth of schedules may be requested.) This will be validated during case reviews at site visit.		

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Emergency Medicine 6.3	When the primary emergency department provider is an advanced practice provider (APP), a physician must be on-call and available for consultation by telephone (or similar means) within 30 minutes.	This will be validated during case reviews at site visit.		If an advance practice provider is the primary emergency department provider, the on-call schedule must also include the physician providing back-up coverage. If telehealth is utilized as back-up, this must be indicated on the ED schedule.
Emergency Medicine 6.4	The physician on-call for consultation must either meet the same trauma training requirements as the emergency physician, or practice emergency medicine or trauma surgery at a Level 1 or Level 2 trauma hospital that is verified by the American College of Surgeons (ACS).	If the physician on call for consultation does not practice emergency medicine or trauma surgery at an ACS Level 1 or Level 2 center, the following must be submitted with the designation application: Clinician Roster, including education and training information	Clinician Roster	If the hospital contracts with a telehealth company for this service, ensure the contracted providers meet this definition.

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Orthopedic Surgery 7.1	If the hospital provides emergent orthopedic surgery, a schedule of the orthopedic surgeon on-call must be maintained and accessible by the emergency department and in-patient staff.	If the hospital provides emergent orthopedic surgery, the following must be submitted with the designation application: • Orthopedic surgeon on-call schedule (Up to 12 months' worth of schedules may be requested) • Orthopedic Worksheet Validated through case reviews at site visit.	Orthopedic Worksheet	Ensure consistency between the transfer policy, admission policy, and the facility's practice related to orthopedic care.

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Orthopedic Surgery 7.2	If the hospital admits patients for the care of surgical orthopedic injuries, a schedule/document outlining the orthopedic surgeon coverage must be maintained and accessible by the emergency department and in-patient staff.	The following must be submitted with the designation application: • A schedule/document to outline the orthopedic surgical coverage (Up to 12 months' worth of schedules may be requested) Orthopedic Worksheet	Orthopedic Worksheet	Ensure consistency between the transfer policy, admission policy, and the facility's practice related to orthopedic care.
Blood Bank 8.1	There must be an in-house blood bank stocked with type-O blood.	The following must be submitted with the designation application: • The number of units of each blood product that is typically stocked in-house. This will be validated at site visit.		

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Blood Bank 8.2	There must be a policy establishing a procedure for the emergent release of uncross-matched blood that: 8.2.1 Ensures that uncross-matched blood can be released to the appropriate staff immediately 8.2.2 Includes a provision to release uncross-matched blood to the appropriate staff in the absence of the blood bank staff if they are off-site	The following must be submitted with the designation application: • Emergent Blood Policy		
Radiology 9.1	A radiology technician or technologist must be continuously available, either in-house or on-call.	The following must be submitted with the designation application: A description of radiology technician or technologist coverage		The radiology technician or technologist response time expectations should be outlined in the TTA policy, protocol, or guideline (see Criterion 4.1)
Radiology 9.2	If the hospital admits trauma patients as described in Section 10, a computed tomography (CT) technician or technologist must be continuously available, either in-house or on-call.	The following must be submitted with the designation application: A description of CT technician or technologist coverage.		If the hospital admits any trauma patients under criteria 10.1 and/or 10.2, answer YES in the designation application to populate the CT question.

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Radiology 9.3	A radiologist must be continuously available, either in-house or off-site.	The following must be submitted with the designation application: • A description of radiologist coverage This will be validated at site visit.		

Admission 10.1	Trauma patients with the following injury patterns may be admitted to a level 4 trauma hospital. The trauma hospital should determine which of these conditions may be admitted following an initial evaluation. • Concussion • Subarachnoid hemorrhage involving one hemisphere no more than 3mm thick, subdural or intraparenchymal hemorrhage < 8mm thick, GCS > 13, in a patient not taking anticoagulant or antiplatelet agents (aspirin and NSAIDs are allowed)* • Diminished level of consciousness attributed to a non-traumatic cause • Thoracic or lumbar transverse or spinous process fracture • Other acute spinal fracture without neurological deficit with spine surgeon consultation • Orthopedic injuries in the absence of injury to another major organ system (i.e., circulatory, nervous or respiratory) • One or two rib fractures with a Practice Management Guideline in place • Three or more acute rib fractures with a Practice Management Guideline in place after consultation** with a trauma-trained general surgeon. This consultation must be documented in the medical record • Pneumothorax that does not require a thoracostomy Those who refuse to be transferred	The following must be submitted with the designation application: • Admission policy • Practice Management Guideline (PMG) for rib fractures Validated through case reviews at site visit	• L4 Admission Policy • Rib Fracture PMG • Criterion 16.3 (PI Process) • Criterion 17.1 (PI Measures)	The hospital admitting under 10.1 may include (but not exceed) the conditions listed in criteria. Initial evaluation is conducted in accordance with current trauma guidelines such as ATLS and/or CALS.' Trauma-trained general surgeon refers to a surgeon who meets State Trauma criteria as defined in Criterion 12.1. Patients admitted for pain control in the absence of an injury listed in Section 10, to care for a medical condition, for comfort care, for physical or occupational therapy, or while awaiting evaluation or placement for a living situation are not considered to be trauma patients. PMG must be approved by the hospital Medical Executive Committee or equivalent and monitored by the trauma PI program. Epidural hemorrhages are not eligible for admission under this criterion. *Based on the mBIG (Brain Injury Guidelines) criteria (2022) **Consultation can be remote.

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Admission 10.2	If a trauma trained general surgeon is continuously on-call for trauma, patients with the following injuries may also be considered for admission: • Pneumothorax requiring a thoracostomy • Unilateral pulmonary contusion without the need for oxygen to maintain SpO2 > 90% • Sternum fracture or scapula fracture without any acute rib fractures • Those who have undergone an emergent surgical procedure as part of the resuscitation that definitively treats the traumatic condition. The general surgeon must respond to the hospital and assess the patient within 18 hours of discovery. The consultation/admission may be accomplished by the surgeon's appointed advanced practice provider on behalf of the surgeon.	The following must be submitted with the designation application: • Current General surgeon on-call schedule (Up to 12 months may be requested) • Admission policy Validated through case reviews and review of PI documents at site visit.	L4 Admission Policy	"Continuously" means seamless coverage at least 350 days of the calendar year. The surgeon must be available during the acute phase of care. When indicated, a thoracostomy should be performed immediately; it should not be delayed while awaiting the arrival of a surgeon. Admission policy should reflect expectations for surgeon involvement in the admitted patient with 3 or more rib fractures (Criterion 10.1). Trauma-trained general surgeon refers to a surgeon who meets State Trauma criteria as defined in criterion 12.1. A resident can respond and perform any role in the resuscitation that the surgeon deems fit. However, the trauma system response requirements refer to the attending surgeon. The resident cannot respond in his/her place or supplant his/her role.

Admission 10.3	The hospital must have a policy describing: **10.3.1** The types of trauma patients considered for admission **10.3.2** The specialties responsible for admitting and providing consults. **10.3.3** The expectations for monitoring patients for deterioration. Elements should include: **10.3.3.1** Fluctuating or increasing heart rate **10.3.3.2** Fluctuating or decreasing blood pressure **10.3.3.3** Fluctuating or worsening level of consciousness or mental status **10.3.3.4** Increasing work of breathing, shortness of breath, or tachypnea **10.3.3.5** Increasing agitation or anxiety **10.3.3.6** Diaphoresis or pallor **10.3.3.7** Indications for provider notification **10.3.4** The considerations of the admission decisions, in the event of patient deterioration, must include: **10.3.4.1** weather **10.3.4.2** distance **10.3.4.3** transport resource availability **10.3.4.4** timeliness of specialty resources/definitive interventions **10.3.5** The emergent transfer procedures in the inpatient setting.	The following must be submitted with the designation application: • Admission policy Validated through case reviews at site visit	L4 Admission Policy	Provide education to staff with any trauma policy change. The policy should reflect all provider types involved in the care of the admitted patient. i.e. hospitalists, internal medicine, family medicine, general surgeons, ortho, neuro, etc. Cross reference admission and transfer policies to ensure they do not contradict each other. Encourage proactive considerations to limit the number of reactive responses needed. The impact of delays in transfer, or increased time to arrival at definitive care could impact patient outcome and should be considered prior to admission. The goal for patient arrival at definitive care is 120 minutes from the time deterioration is discovered. The inpatient emergent transfer procedures can either be outlined in the admission policy or similar document.

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Transfer 11.1	The hospital must have a policy directing the internal processes to emergently implement the transfer of a trauma patient from the emergency department or an in-patient area to definitive care that lists: **11.1.1** The anatomic and physiologic criteria that, when present, must result in the decision to transfer. **11.1.2** The orthopedic surgical conditions that, when present, must result in the decision to transfer. The policy must specifically address how time-sensitive orthopedic conditions such as a threatened limb, compartment syndrome, dislocated knee, and dislocated native hip (i.e., not arthroplasty) will be managed while awaiting transport. **11.1.3** The primary ground and aeromedical transfer services to be used, with contact information for each. **11.1.4** A listing of the supplies, records, and personnel accompanying the patient.	The following must be submitted with the designation application: • Trauma Transfer policy This will be validated through case reviews at site visit.	L4 Trauma Transfer Policy	Definitive care includes any designated trauma hospital with the resources to treat all injuries the patient has sustained. If all injuries can be definitively managed at this hospital, transfer is not needed. Anatomic criteria refer to specific injuries and injury patterns. Physiologic criteria refer to disturbances in vital signs, such as low GCS, decreasing GCS, or hypothermia.

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Transfer 11.2	Designated trauma hospitals may not transfer adult or pediatric patients to undesignated hospitals. Exception: Due to regulatory limitations, patients may be transferred to a Veterans Administration medical center when medically appropriate.	This will be validated through case reviews at site visit.	Trauma System Hospitals website	
Transfer 11.3	The hospital must have transfer agreements with trauma hospitals capable of providing definitive care for trauma patients, including: 11.3.1 At least one agreement with a primary referral hospital 11.3.2 At least two agreements with hospitals capable of caring for burn patients 11.3.3 At least one agreement with a designated Level 1 or Level 2 Pediatric Trauma Hospital.	The following must be submitted with the designation application: • Transfer Agreement with primary referral hospital • Transfer Agreement with two hospitals capable of caring for burn patients • Transfer Agreement with Level 1 or Level 2 Pediatric Trauma Hospital	Sample Transfer Agreement	One agreement can fulfill multiple categories. Most transfer agreements renew automatically. If they do not, be sure to update before they expire. Transfer agreements are required, even if the transferring and receiving hospitals are part of the same system. The primary referral hospital may be within the hospital's own health system

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
General Surgeon Training 12.1	If the hospital admits trauma patients as described in Section 10.2, general surgeons must have successfully completed ATLS and/or CALS within the last four years. Providers must re-take their ATLS or CALS before or during the month in which it is due.	The following must be submitted with the designation application: • Clinician Roster • Current ATLS or CALS certification cards	Clinician Roster	Collaborate with the credentialing office. There is no grace period for either ATLS or CALS training. Dates of course completion should be documented on the clinician's roster, not expiration dates. If the general surgeon is using their instructor status to meet this requirement, current instructor status must be validated. This requirement does not apply to those who are called in to assist the attending provider during an unusual and rare event, such as a Mass Casualty Incident (MCI).
Emergency Physician Training 13.1	If the emergency department physician is currently board-certified or board-eligible with an American Board of Emergency Medicine (ABEM)-approved or American Osteopathic Board of Emergency Medicine (AOBEM) certification or is board-certified in Pediatric Emergency Medicine by the American Board of Pediatrics, then the physician is required to have successfully completed an ATLS or CALS course once.	The following must be submitted with the designation application: • Clinicians Roster	Clinician Roster	Physicians scheduled to work in the emergency department as a second provider must meet the training requirements of the trauma system. Collaborate with the credentialing office. This requirement does not apply to those who are called in to assist the attending provider during an unusual and rare event, such as an MCI.

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Emergency Physician Training 13.2	If the emergency department physician is not board-certified or board-eligible with an ABEM-approved or AOBEM certification, the physician must have successfully completed ATLS and/or CALS within the last four years. Emergency physicians must re-take their ATLS or CALS before or during the month in which it is due.	The following must be submitted with the designation application: • Clinician Roster • Current ATLS or CALS certification cards	Clinician Roster	There is no grace period for either ATLS or CALS training. Collaborate with the credentialing office. Physicians scheduled to work in the emergency department as a second provider must meet the training requirements of the trauma system. This requirement does not apply to those who are called in to assist the attending provider during an unusual and rare event, such as an MCI.
ED Advanced Practice Provider 14.1	Emergency department Advanced Practice Providers (APPs) must have successfully completed ATLS and/or CALS within the last four years. Providers must re-take their ATLS or CALS before or during the month in which it is due. Other APPs who respond to the ED may be required to complete ATLS and/or CALS at the discretion of the hospital's trauma leadership.	The following must be submitted with the designation application: • Clinicians Roster • Current ATLS or CALS certification cards	Clinician Roster	If the urgent care is co-located in the emergency department, the APPs must meet this criterion. Other APPs could include general surgery or other subspecialties. Collaborate with the credentialling office. This requirement does not apply to those who are called in to assist the attending provider during an unusual and rare event, such as a Mass Casualty Incident (MCI).

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Registered Nurse Training 15.1	Registered nurses scheduled or expected to cover the emergency department must: 15.1.1 Review the hospital's trauma team activation, trauma admission, and trauma transfer policies **and** 15.1.2 have successfully completed Trauma Nursing Core Course (TNCC), Comprehensive Advanced Life Support (CALS) Provider Course, Advanced Trauma Care for Nurses (ATCN), or in-house training that meets the following objectives: • Identify the common mechanisms of injury associated with blunt and penetrating injuries. • Describe and demonstrate nursing trauma assessment to identify typical injuries associated with common mechanisms of injury • List appropriate interventions for injuries identified in the nursing assessment. • Associate signs and symptoms with physiological changes in the patient. Describe the ongoing assessment to evaluate the effectiveness of interventions.	The following must be submitted with the designation application: • Attestation • Job description or similar educational requirements document • Training documentation	MDH has created a series of 12 online eLearning modules for hospitals who wish to use them to satisfy part of the required learning objectives. Educational Resources website	Job description or similar educational requirements document should include the trauma training requirement and timeline (e.g. within 12 months of hire). Identify which MDH Modules are required by the hospital. Explain how the hospital's trauma team activation, trauma admission and trauma transfer policies are reviewed as part of this training. This requirement does not apply to those who are called in to assist during an unusual and rare event, such as an MCI.

Registered Nurse Training 15.2	**Definition** If the hospital admits patients as described in Section 10 to treat an injury or to monitor the patient for deterioration, registered nurses assigned to patient floors where those patients are admitted must **15.1.1** Review the hospital's trauma admission and trauma transfer policies **and** **15.2.2** Have successfully completed Trauma Nursing Core Course (TNCC), Comprehensive Advanced Life Support (CALS) Provider Course, Advanced Trauma Care for Nurses (ATCN), Trauma Care After Resuscitation (TCAR), Course in Advanced Trauma Nursing (CATN), or in-house training relating to the conditions treated or monitored that meets the following objectives: • Identify the common mechanisms of injury associated with blunt and penetrating injuries. • Describe nursing trauma assessment to identify typical injuries associated with common mechanisms of injury • List appropriate interventions for injuries identified in the nursing assessment. • Associate signs and symptoms with physiological changes in the patient. Describe the ongoing assessment to evaluate the effectiveness of interventions.	The following must be submitted with the designation application: • Attestation • Job description or similar educational requirements document • Training documentation	MDH has created a series of 12 online eLearning modules for hospitals who wish to use them to satisfy part of the required learning objectives. Educational Resources website	Job description or similar educational requirements document should include the trauma training requirement and timeline (e.g. within 12 months of hire). Identify which MDH Modules are required by the hospital. Explain how the hospital's trauma team activation, trauma admission and trauma transfer policies are reviewed as part of this training. This requirement does not apply to those who are called in to assist during an unusual and rare event, such as an MCI.

Performance Improvement Process 16.1	The performance improvement process must outline (in a written document), the following elements: 16.1.1 Case Finding: the steps to identify cases that meet the trauma registry inclusion criteria 16.1.2 *Primary Review: the process to provide critical nurse level review to identify potential clinical care issues and deviations from standards of care and/or practice 16.1.3 *Secondary Review: the process to provide critical provider level review to identify potential clinical care issues and deviations from standards of care and/or practice 16.1.4 Tertiary Case Review: the established method for a provider level committee case review to identify potential clinical care issues that are identified by trauma program leaders 16.1.4.1 Define committee members and attendance expectations/requirements. 16.1.4.2 Results of tertiary case reviews that identify opportunities to improve clinical care must be communicated with the medical providers. 16.1.5 Trauma Registry: the established steps for data entry into the trauma registry 16.1.6 Performance Improvement: the method to identify and document	The following must be submitted with the designation application: • Performance Improvement Process document	L4 PI Process Flowchart Provider Attendance at Tertiary Case Review Meeting Guideline	Primary Review: Outline who will review the TPM's cases Primary Review: If the TPM is not a RN, an RN must assist with the review of the trauma care and function as a liaison between the trauma program and the nursing staff (Criterion 3.2) Secondary Review: Outline who will review the TMD's cases Clearly outline who is responsible for reviewing each level of care (including EMS, Inpatient, etc.) Tertiary Case Review committee: Define which providers and other staff are expected and/or required to participate

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
	performance related issues and steps for improvement. 16.1.7 Performance Metrics: identify where and how state and/or local metrics are monitored and tracked. * The scope of case primary and secondary review includes care provided in the prehospital setting, emergency department, in-patient units, and all areas and departments of the hospital that provide or affect trauma care, as well as performance related information from a receiving hospital about transferred patients.			

Performance Improvement Process 16.2	The performance improvement process must demonstrate the following elements: **16.2.1** Case Finding: **16.2.1.1** must occur, within three weeks of patients' discharge **16.2.1.2** identify trauma cases that meet the trauma registry inclusion criteria **16.2.2** Primary Review: **16.2.2.1** must occur within three weeks of patients' discharge. **16.2.2.2** identify potential clinical care issues and care issues that are inconsistent with Trauma Standards of Care (e.g. Comprehensive Advanced Life Support [CALS], Trauma Nursing Core Course [TNCC] and Rural Trauma Team Development Course [RTTDC] principles). **16.2.2.3** the scope of case review includes care provided in the pre-hospital setting, emergency department, in-patient units, and all areas and departments of the hospital that provide or affect trauma care, as well as performance related information from a receiving hospital about transferred patients. **16.2.3** Secondary Review (if required): **16.2.3.1** must occur within six weeks of patients' discharge **16.2.3.2** identify potential clinical care issues and care issues that are inconsistent with Trauma Standards of Care (e.g. Advanced Trauma Life Support [ATLS], Comprehensive Advanced Life Support [CALS], and Rural Trauma Team Development Course [RTTDC] principles).	Validated during site visit though PI and case reviews.	Registry inclusion criteria Trauma PI - Case Review Guide Standards of Care document L4 In-patient Review form Tertiary Meeting resources: - Provider Case Review Attendance spreadsheet - Provider Case Review Meeting Minutes	Timely (concurrent) primary and secondary review yields the most effective PI results All medical providers include any provider who may give care to an injured patient in the emergency department (16.2.4.3) • ED physicians • ED APPs • General surgeons • Surgical APPs • Other facility specific providers who respond to the ED for trauma care Learnings can be shared in a variety of forms, including but not limited to meeting minutes, newsletter, feedback document, case review summary (16.2.4.3) Investigative follow up, from primary and secondary review, should be included in PI documentation (16.2.5.2) Tertiary Case Review meeting attendance: formal leave of absences are allowed, document on attendance sheet (military or medical leave) Document evidence of event identification, effective use of audit filters, demonstrated loop closure attempts at corrective actions and strategies for sustained improvement measured over time (16.2.6)

Performance Improvement Process 16.2 (continued)	16.2.3.3 the scope of case review includes care provided in the pre-hospital setting, emergency department, in-patient units, and all areas and departments of the hospital that provide or affect trauma care, as well as performance related information from a receiving hospital about transferred patients. 16.2.4 Tertiary Case Review (if required): 16.2.4.1 tertiary case review is to be facilitated by the trauma medical director (TMD)/Co-TMD. 16.2.4.2 tertiary case review committee must include ED providers involved in the care of the injured patient. 16.2.4.3 learnings from tertiary case review must be provided to medical providers who are not in attendance at the meeting. 16.2.4.4 if the hospital admits trauma patients as described in Section 10.2, general surgeons and general surgery APPs must attend at least 50% of the scheduled tertiary case review meetings. 16.2.5 Performance Improvement documentation will include: 16.2.5.1 Evaluation of performance measures 16.2.5.2 Findings from all levels of case reviews 16.2.5.3 Actions undertaken to correct clinical care and process issues identified during case reviews 16.2.5.4 Appropriate steps towards improvement or resolution of identified issues 16.2.6 Demonstrate resolution of at least two clinical care or care process issues			

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Performance Improvement Process 16.3	The hospital must establish and monitor performance improvement filters that include: **16.3.1** Case category: TTA, Transfer, Admit, Death **16.3.2** Delay in decision to transfer (>30 min) once the immediate transfer criteria/policy is met. **16.3.3** Patient exceeds admission criteria and admitted locally **16.3.4** Admitted and then transferred **16.3.5** Delays in care **16.3.6** Deviation from trauma standards of care **16.3.7** Deviation from Practice Management Guidelines **16.3.8** At least one hospital-specific filter that focuses on improving clinical care or care process **16.3.9** Patient admitted with 10.2 condition; general surgeon did not arrive at bedside within 18 hours	The following must be submitted with the designation application: • Performance Improvement filters	L4 PI Filter worksheet PI Filter examples	Any filter that yields a “yes” answer, requires further investigation If trauma leadership identifies trends with the monitored filters, consider implementing formal PI project Any deviation from hospital trauma policies (TTA, Transfer, Admission) should undergo PI review Any deviation in standards of care should lead to further PI review Any patient being taken from the ED to the OR will be considered an admission

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Performance Improvement Process 16.4	The Emergency Department must **16.4.1** Perform a Pediatric Readiness Assessment within one year of designation expiration **16.4.2** Have a plan to address at least one of the identified gaps **16.4.3** Identify a pediatric point of contact	The following must be submitted with the designation application: • Pediatric Readiness Assessment Score • Pediatric point of contact name and email Validated through PI discussion at site visit	Resources to address deficiencies: https://emscimprovement.center/domains/pediatric-readiness-project/readiness-toolkit/ Pediatric readiness assessment: https://www.pedsready.org/	Incorporate findings into PI process. Pediatric point of contact is a person to receive communication related to pediatric care. "Pediatric Readiness" refers to infrastructure, administration and coordination of care, personnel, pediatric-specific policies, equipment, and other resources that ensure the hospital is prepared to provide care to the injured child.

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Performance Improvement Measures 17.1	The following performance measures must be maintained or exceeded: 17.1.1 Trauma team activated when criteria met: 80% 17.1.2 Less than 30 min decision to transfer once the patient is recognized as meeting the hospital's immediate transfer criteria: 80% 17.1.3 At least one hospital-specific measure that focuses on improving clinical care and meeting the hospital's set goal If the hospital admits trauma patients as described in Section 10.2, the following performance measure must also be maintained or exceeded: 17.1.4 General surgeon arrival at bedside within 18 hours as required in Section 10.2: 80% Compliance with performance measures are calculated based on the most recent 12 months of data.	The following must be submitted with designation application: • L4 PI Measures spreadsheet or similar document that includes required performance measures (submit previous full calendar year and current year to date data) Validated through case reviews at site visit	L4 PI Measures spreadsheet Criterion 10.2	Previous 12 months of data are typically requested with the application, however additional months may be requested. For each measure, provide the monthly raw data, including the numerator and denominator The hospital must submit documentation of PI for any metric that is below goal to demonstrate activities to improve the measure.
Trauma Registry 18.1	The hospital must submit data as defined by the State Trauma Advisory Council within 60 days of the patients' discharge or transfer.	Validated through review of registry cases	Registry Inclusion Criteria	Confirm validation scores are within acceptable range
Trauma Registry 18.2	Data imported from other sources must be submitted in a manner and format that is acceptable to MDH.	Validated through review of registry cases	ImageTrend Data Schema	If trauma data uploaded from third party registry, cases need to be uploaded to MNTrauma registry within 60 days.

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Required Equipment 19.1	Emergency Department: • Airway control and ventilation equipment • Arterial tourniquet • Pulse oximetry • Suction device and supplies • EKG monitor and defibrillator • Crystalloid IV fluids and administration sets • IV catheters from 14-22 Ga. • Drugs necessary for emergency trauma care • Nasal gastric & oral gastric tubes • Cervical collars • Pediatric length-based resuscitation tape or reference manual • Blanket warmer or overhead radiant heater • Warming cabinet for IV fluids or inline IV fluid warmer • Rapid IV fluid infuser system (may use pressure bag) • End-tidal CO2 detector (may be disposable) • Method to communicate with EMS • Mechanism for IV flow-rate control • Intraosseous needles and administration sets • Supplies for surgical airway & thoracostomy • Mechanism for pelvic stabilization	The following must be submitted with the designation application: • Required Equipment Checklist and Attestation form Validated during tour at site visit	Required Equipment Checklist and Attestation form	For pediatric sizes, ensure that there is at least one size for each age/size category of the length-based resuscitation tape or reference manual. Ensure that all resources (i.e. pediatric tape) are the most current.

Section	LEVEL 4 CRITERIA	Measure of Compliance / Validation	Resources / Sample Documents	Helpful Tips
Required Equipment 19.2	Imaging Department • Airway control and ventilation equipment Suction device and suction supplies	The following must be submitted with the designation application: • Required Equipment Checklist and Attestation form Validated during tour at site visit	Required Equipment Checklist and Attestation form	
Required Equipment 19.3	If the hospital admits trauma patients described in Section 10, the following equipment is also required on the in-patient unit: Equipment for monitoring and resuscitation	The following must be submitted with the designation application: • Required Equipment Checklist and Attestation form Validated during tour at site visit	Required Equipment Checklist and Attestation form	If the hospital admits injured pediatric patients, appropriate equipment should be available in the in-patient unit Equipment for monitoring and resuscitating the trauma patient should be available on any unit in which these patients may be admitted

Minnesota Department of Health
Trauma System
health.trauma@state.mn.us
www.health.state.mn.us

09/23/2025

To obtain this information in a different format, call: 651-201-3560.