Level III Criteria Quick Reference Guide

Hospital Commitment

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 5-1	A decision by a hospital to become a trauma facility requires the commitment of the institutional governing body and the medical staff. Documentation of administrative commitment is required from the governing body and the medical staff.	I
III	ACS, CD 5-1	Because the trauma PI program crosses many specialty lines, it must be empowered to address events that involve multiple disciplines and be endorsed by the hospital governing body as part of its commitment to optimal care of the injured patients.	I
III	ACS, CD 5-1	There must be adequate administrative support to ensure evaluation of all aspects of trauma care.	I
III	ACS, CD 5-2	The (administrative) support must be reaffirmed continually (every 3 years) and must be current at the time of verification.	II
III	ACS, CD 5-3	The (medical staff) support must be reaffirmed continually (every 3 years) and must be current at the time of verification.	II
III	ACS, CD 5-4	The trauma program must involve multiple disciplines and transcend normal departmental hierarchies.	II

Trauma Systems

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 1-3	Meaningful involvement in state and regional trauma system planning development, and operation is essential for all designated trauma centers and participating acute care facilities within a region.	II
III	ACS, CD 1-1	The individual trauma centers and their health care providers are essential system resources that must be active and engaged participants. The best possible care for patients must be achieved with a cooperative and inclusive program that clearly defines the role of each facility within the system.	II
III	ACS, CD 1-2	They must function in a way that pushes trauma facility-based standardization, integration, and PI out to the region while engaging in inclusive trauma system planning and development.	II
III	ACS, CD 16-10	Sufficient mechanisms must be available to identify events for review by the trauma PI program. Issues that must be reviewed will revolve predominately around (1) system and process issues such as documentation and communication; (2) clinical care, including identification and treatment of immediate life-threatening injuries (ATLS); and (3) transfer decisions.	II
III	ACS, CD 15-1	The foundation for evaluation of a trauma system is the establishment and maintenance of a trauma registry. Trauma registry data must be collected and analyzed by every trauma facility.	II
III	ACS, CD 5-21	There must be a method to identify the injured patients, monitor the provision of health care services, make periodic rounds, and hold formal and informal discussions with individual practitioners.	I

The Role of a Trauma Facility in a Trauma System

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 2-1	This trauma facility must have an integrated, concurrent performance improvement (PI) program to ensure optimal care and continuous improvement in care.	I
III	ACS, CD 2-3	The trauma facility must be able to provide the necessary human and physical resources (physical plant, and equipment) to properly administer acute care consistent with their level of verification.	II
III	ACS, CD 5-25 ACS CD 6-8 ACS, CD 9-16 ACS, CD 7-11 ACS, CD 11-62 ACS, CD 11-13	In Level I, II, III trauma facilities, there must be a multidisciplinary trauma peer review committee chaired by the trauma medical director, and representatives from general surgery, and liaisons from orthopedic surgery, emergency medicine, ICU, and anesthesia must be identified and participate actively in the trauma PI program with at least 50 percent attendance at multidisciplinary trauma peer review committee.	II
III	ACS, CD 2-18	Multidisciplinary trauma peer review committee must meet regularly, with required attendance of medical staff active in trauma resuscitation, to review systemic and care provider issues, as well as propose improvements to the care of the injured.	II
III	ACS, CD 2-13	Well defined transfer plans are essential. Transfer guidelines and agreements between facilities are crucial and must be developed after evaluating the capabilities of rural hospitals and medical transport agencies.	II
III	ACS, CD 2-19	A PI program must have audit filters to review and improve pediatric and adult patient care,	II
III	ACS, CD 2-2	Surgical commitment is essential for a properly functioning trauma facility.	I
III	ACS, CD 2-5	Through the trauma PI program and hospital policy, the trauma director must have responsibility and authority for determining each general surgeon's ability to participate on the trauma panel based on an annual review.	II
III	ACS, CD 2-23	Any adult trauma facility that annually admits 100 or more injured children younger than 14 years must fulfill the following additional criteria demonstrating their capability to care for injured children; trauma surgeons must be credentialed for pediatric trauma care by the hospital's credentialing body.	II
III	ACS, CD 2-24	There must be a pediatric emergency department area, a pediatric intensive care area, appropriate resuscitation equipment, and a pediatric-specific trauma PI program.	II
III	ACS, CD 2-25	For adult trauma facilities annually admitting fewer than 100 injured children younger than 14 years, these resources are desirable. These hospitals, however, must review the care of their injured children through their PI program.	II
III	ACS, CD 16-1	Trauma centers must have a PI program that includes a comprehensive written plan outlining the configuration and identifying both adequate personnel to implement that plan and an operational data management system.	II

Pre-Hospital Care

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 3-1	The trauma program must participate in the training of prehospital personnel, the development and improvement of prehospital care protocols, and performance improvement programs.	II
III	ACS, CD 3-2	The protocols that guide pre-hospital trauma care must be established by the trauma health care team, including surgeons, emergency physicians, medical directors for EMS agencies and basic and advanced pre-hospital personnel.	II
III	ACS, CD 3-7	When a trauma facility is required to go on bypass or to divert, the center must have a system to notify dispatch and EMS agencies. The facility must do the following: 1. Prearrange alternative destinations with transfer agreements in place. 2. Notify other facilities of divert or advisory status. 3. Maintain a divert log. 4. Subject all diverts and advisories to performance improvement procedures	II

Inter-Hospital Transfers

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 4-1	Direct physician to physician contact is essential. Direct contact of the physician or midlevel provider with a physician at the receiving hospital is essential.	II
III	ACS, CD 4-3	All transfers must be evaluated as part of the receiving trauma facility's performance improvement (PI) process and feedback should be provided to the transferring facility**.** The PI program includes evaluating transport activities.	II
III	ACS, CD 4-2	The decision to transfer an injured patient to a specialty care facility in an acute situation must be based solely on the needs of the patient and not on the requirements of the patient's specific provider network (for example, a health maintenance organization or a preferred provider organization) or the patient's ability to pay.	II
III	ACS, CD 8-5	For all patients being transferred for specialty care, such as burn care, microvascular surgery, cardiopulmonary bypass capability, complex ophthalmologic surgery, or high-complexity pelvic fractures, agreements with a similar or higher-qualified verified trauma facility should be in place. If this approach is used, a clear plan for expeditious critical care transport, follow-up, and performance monitoring is required. If complex cases are being transferred out, a contingency plan should be in place and must include the following: • A credentialing process to allow the trauma surgeon to provide initial evaluation and stabilization of the patient • Transfer agreements with similar or higher-verified trauma facilities • Direct contact with the accepting facility to arrange for expeditious transfer or ongoing monitoring support • Monitoring of efficacy of the process by the PI program	II
III	ACS, CD 11-78	Level III trauma facilities that do not have dialysis capabilities must have a transfer agreement in place.	II

Trauma Program Manager (TPM)/Coordinator

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 2-17	TPM is knowledgeable and involved in trauma care, working with TMD with guidance from trauma peer review committee to identify events, develop corrective action plans, and ensure methods of monitoring, reevaluation, and benchmarking	II
III	ACS, CD 5-1	The trauma medical director and the trauma program manager must have the authority and be empowered by the hospital governing body to lead the program	I
III	ACS, CD 5-22	The TPM must have administrative abilities, show evidence of educational preparation, and clinical experience in the care of the injured patients.	II

Trauma Medical Director (TMD)

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 2-17	A TMD and TPM knowledgeable and involved in trauma care must work together with guidance from the trauma peer review committee to identify events, develop corrective action plans, and ensure methods of monitoring, reevaluation, and benchmarking.	II
III	ACS, CD 11-87	The trauma program must also demonstrate appropriate orientation, and credentialing processes, and skill maintenance for advanced practitioners, as witnessed by an annual review by the trauma medical director.	II
III	ACS, CD 3-4	The trauma director must be involved in the development of the trauma center's bypass (diversion) protocol.	II
III	ACS, CD 5-5	The TMD must be a current board-certified general surgeon (or a general surgeon eligible for certification by the American Board of Surgery according to current requirements) or a general surgeon who is an American College of Surgeons Fellow with a special interest in trauma care and must participate in trauma call.	I
III	ACS, CD 5-6	The TMD must be current in Advanced Trauma Life Support (ATLS).	II
III	ACS, CD 5-9	The TMD must have the authority to manage all aspects of trauma care.	II
III	ACS, CD 5-10	The TMD must chair and attend a minimum of 50% of the multidisciplinary trauma peer review committee meetings.	II
III	ACS, CD 5-11	The TMD, in collaboration with the TPM, must have the authority to correct deficiencies in trauma care and exclude from trauma call the trauma team members who do not meet specified criteria.	II

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 5-11	In addition, the TMD must perform an annual assessment of the trauma panel providers in the form of Ongoing Professional Practice Evaluation (OPPE) and Focused Professional Practice Evaluation (FPPE) when indicated by findings of the PI process.	II
III	ACS, CD 5-11	The trauma medical director must have sufficient authority to set the qualifications for the trauma service members, including individuals in specialties that are routinely involved with the care of the trauma patient.	II
III	ACS, CD 5-11	Moreover, the trauma medical director must have authority to recommend changes for the trauma panel based on performance review.	II
III	ACS, CD 5-12	The TMD must have the responsibility and authority to ensure compliance with the above requirements and cannot direct more than on trauma facility.	II

General Surgery

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 2-8	The maximum acceptable response time is 30 minutes for the highest-level activation tracked from patient arrival. The minimum criteria for full trauma team activation are provided in Table 2 in Chapter 5. The program must demonstrate that the surgeon's presence is in compliance at least 80 percent of the time.	I
III	ACS, CD 2-12	A level III trauma center must have continuous general surgical coverage.	II
III	ACS, CD 3-5	The trauma surgeon must be involved in the decision regarding bypass (diversion) each time the facility goes on bypass.	II
III	ACS, CD 5-17	Injured patients may be admitted to individual surgeons, but the structure of the program must allow the trauma director to have oversight authority for the care of these patients.	II
III	ACS, CD 6-1	General surgeons caring for trauma patients must meet certain requirements, as described herein. These requirements may be considered to be in four categories: current board certification, clinical involvement, performance improvement, and patient safety and education.	II
III	ACS, CD 6-2	Board certification or eligible for certification by the American Board of Surgery according to current requirements or the alternate pathway is essential for general surgeons who take trauma call in Level I, II, III trauma facilities.	II
III	ACS, CD 6-3	Alternate Criteria for non-Board-Certified surgeons in a Level I, II, or III trauma facility.	II
III	ACS, CD 6-4	Trauma surgeons must have privileges in general surgery.	II
III	ACS, CD 6-7	For Level I, II, III trauma facilities, the attending surgeon is expected to be present in the operating room for all operations. A mechanism for documenting this presence is essential.	II
III	ACS, CD 6-8	Each member of the group of general surgeons must attend at least 50 percent of the multidisciplinary trauma peer review committee meetings.	II
III	ACS, CD 6-9	All general surgeons on the trauma team must have successfully completed the Advanced Trauma Life Support (ATLS) course at least once.	II

Emergency Medicine

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 11-86	Advanced practitioners who participate in the initial evaluation of the trauma patients must demonstrate current verification as an ATLS provider.	II
III	ACS, CD 2-8	It is expected that the physician or midlevel provider will be in the emergency department on patient arrival, with adequate notification from the field. The maximum acceptable response time is 30 minutes for the highest level of activation, tracked from patient arrival. The PI program must demonstrate the physician's presence is in compliance at least 80% of the time.	I
III	ACS, CD 7-1	The emergency departments of Level I, II, III trauma facilities must have a designated emergency physician director supported by an appropriate number of additional physicians to ensure immediate care for injured patients.	I
III	ACS, CD 7-4	In institutions in which there are emergency medicine residency training programs, supervision must be provided by an in-house attending emergency physician 24 hours per day.	II
III	ACS, CD 7-5	These roles and responsibilities must be defined, agreed on, and approved by the director of the trauma service.	II
III	ACS, CD 7-6	Board certification or eligibility for certification by the appropriate emergency medicine board according to current requirements or alternate pathway is essential for physicians staffing the emergency department and caring for trauma patients in Level I, II, III trauma facilities.	II
III	ACS, CD 6-3	Alternate criteria for Non-Board-Certified Emergency Medicine Physicians in a Level I, II, III Trauma Facilities.	II

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 7-7	Emergency physicians on the call panel must be regularly involved in the care of injured patients.	II
III	ACS, CD 7-9	A designated emergency physician liaison must be available to the trauma director for PI issues that occur in the emergency department.	II
III	ACS, CD 7-11	The emergency medicine liaison on the multidisciplinary trauma peer review committee must attend a minimum of 50 percent of the committee meetings.	II
III	ACS, CD 7-14	In Level I, II, III trauma facilities, all board-certified emergency physicians or those eligible for certification by an appropriate emergency medicine board according to current requirements must have successfully completed the ATLS course at least once.	II
III	ACS, CD 7-15	Physicians who are certified by boards other than emergency medicine who treat trauma patients in the emergency department are required to have current ATLS status.	II

Neurosurgery

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 8-5	A formal published contingency plan must be in place for times in which a neurosurgeon is encumbered upon the arrival of a neurotrauma case. The contingency plan must include the following: • A credentialing process to allow the trauma surgeon to provide initial evaluation and stabilization of the neurotrauma patient • Transfer agreements with a similar or higher-level verified trauma facility • Direct contact with the accepting facility to arrange for expeditious transfer or ongoing monitoring support • Monitoring of the efficacy of the process by the PI program	II
III	ACS, CD 8-6	If one neurosurgeon covers two centers within the same limited geographic area, there must be a published backup schedule. In addition, the performance improvement process must demonstrate that appropriate and timely care is provided.	II
III	ACS, CD 8-7	A Level III trauma facility must have a plan approved by the trauma medical director that determines which types of neurosurgical injuries may remain and which should be transferred.	II
III	ACS, CD 8-8	Transfer agreements must exist with appropriate Level I and Level II trauma facilities.	II
III	ACS, CD 8-9	In all cases, whether patients are admitted or transferred, the care must be timely, appropriate and monitored by the PI program.	I
III	ACS, CD 8-10	Board certification or eligibility for certification by an appropriate neurosurgical board according to the current requirements or the alternate pathway is essential for neurosurgeons who take trauma call in Level I, II, III Trauma facilities.	II
III	ACS, CD 6-3	Alternate Criteria for Non-Board Neurosurgeons in Level I, II, and III Trauma Facilities	II
III	ACS, CD 8-13	Level III facilities with any emergent neurosurgical cases must also have the participation of neurosurgery on the multidisciplinary trauma peer review committee.	II
III	ACS, CD 11-68	Intracranial pressure monitoring equipment must be available in Level I and II trauma facilities and in Level III trauma facilities with neurosurgical coverage that admit neurotrauma patients.	I

Orthopedics

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 11-72	Level III trauma facilities must have the availability and commitment of orthopaedic surgeons.	I
III	ACS, CD 9-4	Level I, II, and III trauma facilities must have an orthopaedic surgeon who is identified as the liaison to the trauma program.	I
III	ACS, CD 9-2	Operating rooms must be promptly available to allow for emergency operations on musculoskeletal injuries, such as open fracture debridement and stabilization, external fixator placement, and compartment decompression.	I
III	ACS, CD 9-11	Level III facilities vary significantly in the staff and resources that they can commit to musculoskeletal trauma care, but they must have an orthopaedic surgeon on call and promptly available 24 hours a day.	II
III	ACS, CD 9-12	If the orthopaedic surgeon is not dedicated to a single facility while on call, then a published backup schedule is required.	II
III	ACS, CD 9-15	The orthopaedic service must participate actively with the overall trauma PI program and multidisciplinary trauma peer review committee.	II

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 9-16	The orthopaedic liaison to the trauma PI program must attend a minimum of 50 percent of the multidisciplinary trauma peer review committee meetings.	II
III	ACS, CD 9-17	Board certification or eligibility for certification by an appropriate orthopaedic board according to current requirements, or the alternate pathway is essential for orthopaedic surgeons who take trauma call in Level I, II, and III trauma facilities.	II
III	ACS, CD 6-3	Alternate Criteria for Non-Board-Certified Orthopaedic Surgeons in a Level I, II, III Trauma Facility.	II

Anesthesiologists

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 11-1	Anesthesiology services are critical in the management of severely injured patients and must be available within 30 minutes for **emergency operations**.	I
III	ACS, CD 11-2	Anesthesiology services are critical in the management of severely injured patients and must be available within 30 minutes for **managing airway problems**.	I
III	ACS, CD 11-3	In Level I, II, III trauma facilities, a qualified and dedicated physician anesthesiologist must be designated as the liaison to the trauma program.	I
III	ACS, CD 11-7	In Level III hospitals, in-house anesthesia services are not required, but anesthesiologists or CRNAs must be available within 30 minutes.	I
III	ACS, CD 11-8	In Level III trauma centers without in-house anesthesia services, protocols must be in place to ensure the timely arrival at the bedside by the anesthesia provider within 30 minutes of notification and request.	I
III	ACS, CD 11-9	Under these circumstances, the presence of a physician skilled in emergency airway management must be documented.	I
III	ACS, CD 11-12	In Level I, II, III trauma facilities participation in the trauma PI program by the anesthesia liaison is essential.	II
III	ACS, CD 11-13	The anesthesiology liaison to the trauma program must attend at least 50 percent of the multidisciplinary peer review meetings, with documentation by the trauma PI program.	II

Internal Medicine

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 11-74	In a Level III facility, internal medicine specialists must be available on the medical staff.	II

Operating Room

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 11-17	In Level III trauma facilities, an operating room must be adequately staffed and available within 30 minutes.	I
III	ACS, CD 11-18	If an on-call team is used, the availability of operating room personnel and the timeliness of starting operations must be continuously evaluated by the trauma PI process, and measures must be implemented to ensure optimal care.	II
III	ACS, CD 11-19	All trauma facilities must have rapid fluid infusers, thermal control equipment for patients and resuscitation fluids, intraoperative radiologic capabilities, equipment for fracture fixation, and equipment for bronchoscopy and gastrointestinal endoscopy.	I
III	ACS, CD 11-20	Level I, II, and III trauma facilities must have the necessary equipment to perform a craniotomy. Only Level III trauma facilities that do not offer neurosurgery services are not required to have craniotomy equipment.	I
III	ACS, CD 11-24	At Level I, II, and III trauma facilities, a PACU with qualified nurses must be available 24 hours per day to provide care for the patient if needed during the recovery phase.	I
III	ACS, CD 11-25	If this availability requirement is met with a team on call from outside the hospital, the availability of the PACU nurses and compliance with this requirement must be documented by the PI program.	II
III	ACS, CD 11-26	The PACU must have the necessary equipment to monitor and resuscitate patients, consistent with the process of care designated by the institution.	I

ICU

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 11-53	In Level II, and III trauma facilities, a surgeon must serve as co-director or director of the ICU and be actively involved in, and responsible for, setting policies and administrative decisions related to trauma ICU patients.	II
III	ACS, CD 11-54	In Level II and III facilities, the ICU director or co-director must be a surgeon who is currently board certified or eligible for certification by the current standard requirements.	II
III	ACS, CD 11-56	In Level III trauma facilities, physician coverage of the ICU must be available within 30 minutes, with a formal plan in place for emergency coverage.	I
III	ACS, CD 11-58	In Level I, II, and III trauma facilities, the trauma surgeon must retain responsibility for the patient and coordinate all therapeutic decisions.	I
III	ACS, CD 11-59	Many of the daily care requirements can be collaboratively managed by a dedicated ICU team, but the trauma surgeon must be kept informed and concur with major therapeutic and management decisions made by the ICU team.	I
III	ACS, CD 11-61	There must be a designated ICU liaison to the trauma service.	II
III	ACS, CD 11-62	The ICU liaison must attend at least 50 percent of the multidisciplinary peer review meetings, with documentation by the trauma PI program	II
III	ACS, CD 11-65	At Level I, II, and III trauma facilities, qualified critical care nurses must be available 24 hours per day to provide care for patients during the ICU phase.	I
III	ACS, CD 11-66	The patient to nurse ratio in the ICU must not exceed two to one.	II
III	ACS, CD 11-67	The ICU must have the necessary equipment to monitor and resuscitate patients.	I

Radiology

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 11-29	Conventional radiography must be available in all trauma facilities 24/7.	I
III	ACS, CD 11-30	Computed tomography (CT) must be available in Levels I, II, and III trauma facilities 24 hours per day.	I
III	ACS, CD 11-28	The trauma facility must have policies designed to ensure that trauma patients whom may require resuscitation and monitoring are accompanied by appropriately trained providers during transportation to, and while in, the radiology department.	II
III	ACS, CD 11- 32	In Level I, II, and III trauma facilities, qualified radiologists must be available within 30 minutes in person or by teleradiology for the interpretation of radiographs.	I
III	ACS, CD 11-34	In Level I, II, and III trauma facilities, diagnostic information must be communicated in a written or electronic form and in a timely manner.	II
III	ACS, CD 11-35	Critical information deemed to immediately affect patient care must be verbally communicated to the trauma team in a timely manner.	II
III	ACS, CD 11-36	The final report must accurately reflect the chronology and content of communications with the trauma team, including changes between the preliminary and final interpretations.	II

Lab and Blood Bank

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 11-80 ACS, CD 11-81	24-hour availability of a laboratory capable of: ・Standard analysis of blood, urine and other body fluids, including micro sampling ・Blood typing and cross matching	I
III	ACS, CD 11-84	Must have a massive transfusion protocol developed collaboratively between the trauma service/program and the blood bank.	I
III	ACS, CD 11-83	In Level III facilities, the blood bank must have an adequate supply of packed red blood cells and fresh frozen plasma available within 15 minutes.	I
III	ACS, CD 11-85	Coagulation studies, blood gas analysis, and microbiology studies must be available 24 hours per day.	I

Additional Required Services

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 11-76	In Level III facilities, there must be a respiratory therapist on call 24 hours per day.	I
III	ACS, CD 12-3	Physical therapy must be provided in Level I, II, III trauma facilities.	I
III	ACS, CD 12-4	Social services must be provided in Level I, II, and III trauma facilities.	II

Burn Patients

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 14-1	Trauma facilities that refer burn patients to a burn center must have a written transfer agreement with the referral burn center.	II

Trauma Team Activation

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 5-13	The criteria for a graded activation must be clearly defined by the trauma facility, with the highest level of activation including the six required criteria listed in Table 2 Trauma hospitals shall have a trauma team activation protocol/policy to include: • Lists of all team members • Response requirements for all team members when a trauma patient is enroute or has arrived • The criteria for a graded activation must be clearly defined by the trauma center, with the highest level of activation including the six identified, required criteria (Table 2) • The person(s) authorized to activate the trauma team. • Protocols that guide pre-hospital trauma care	II
III	ACS, CD 5-15	The trauma team must be fully assembled within 30 minutes.	II
III	ACS, CD 5-15 ACS, CD 5-14	All trauma team activations must be categorized by the level of response and quantified by number and percentage, as shown in Table 2 (Optimal Care of the Injured Patient).	II

Trauma Registry

Level	Criteria and Source	Description of Criteria	Type
III	MI, CD 1-1	All healthcare facilities with an emergency center shall participate in data submission.	I
III	MI, CD 1-2	All data which meets inclusion criteria, as defined in the most current version of "National Trauma Data Standard: Data Dictionary", is submitted electronically into the State Trauma Registry (ImageTrend). Twelve months of data must be submitted into the State Trauma Registry prior to applying for designation as a Michigan trauma facility for the first time.	I
III	MI, CD 1-3	To maintain designation as a Michigan Trauma facility, data is to be submitted electronically into the State Trauma Registry quarterly by the following dates: January 15, April 15, July 15, October 15	I
III	MI, CD 1-4	Each healthcare facility is required to designate a person responsible for trauma registry activities. This person should have minimal training necessary to maintain the registry. This need not be a dedicated position.	I
III	ACS, CD 15-1	The trauma facility must demonstrate that all trauma patients can be identified for review. Registry data must be collected and analyzed.	II
III	ACS, CD 15-3	The trauma PI program must be supported by a registry and a reliable method of concurrent data collection that consistently obtains information necessary to identify opportunities for improvement.	II
III	ACS, CD 15-3	The trauma registry is essential to the performance improvement (PI) program and must be used to support the PI process.	II
III	ACS, CD 15-4	Furthermore, these findings must be used to identify injury prevention priorities that are appropriate for local implementation.	II
III	ACS, CD 15-5	All trauma facilities must use a risk stratified benchmarking system to measure performance and outcomes.	II
III	ACS, CD 16-4	To achieve this goal, a trauma program must use clinical practice guidelines, protocols, and algorithms derived from evidenced-based validated resources.	II

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 15-6	Trauma registries should be concurrent. At a minimum, 80 percent of cases must be entered within 60 days of discharge.	II
III	ACS, CD 15-7	Registrar must attend or have previously attended two courses within 12 months of being hired: (1) the American Trauma Society's Trauma Registrar Course or equivalent provided by a state trauma program; (2) the Association of the Advancement of Medicine's Injury Scaling Course.	II
III	ACS, CD 15-8	The trauma program must ensure that appropriate measures are in place to meet the confidentiality requirements of the data.	II
III	ACS, CD 15-9	One full-time equivalent employee dedicated to the registry must be available to process the data capturing the NTDS data set for each 500-750 admitted patients annually.	II
III	ACS, CD 15-10	Strategies for monitoring data validity are essential.	II
III	ACS, CD 16-5	All process and outcome measures must be documented within the trauma PI program's written plan and reviewed and updated at least annually.	II
III	ACS, CD 16-11	Once an event is identified, the trauma PI program must be able to verify and validate that event.	II
III	ACS, CD 16-6	Mortality Review: All trauma related mortalities must be systematically reviewed and those mortalities with opportunities for improvement identified for peer review. 1. Total trauma-related mortality rates. Outcome measures for total, pediatric (younger than 15 years), and geriatric (older than 64 years) trauma encounters should be categorized as follows: a. DOA (pronounced dead on arrival with no additional resuscitation efforts initiated in the emergency department) b. DIED (died in the emergency department despite resuscitation efforts). c. In-Hospital (including the operating room) 2. Mortality rates by Injury Severity Scale (ISS) subgroups using Table 1. (Optimal Care of Injured Patients)	II

Disaster Plan

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 20-4	All hospitals must have a hospital disaster plan described in the hospital's policy and procedure manual or equivalent.	II
III	ACS, CD 2-22	The facility must participate in regional disaster management plans and exercises.	II
III	ACS, CD 20-1	Trauma facilities must meet the disaster-related requirements of the Joint Commission.	II
III	ACS, CD 20-2	A surgeon from the trauma panel must be a member of the hospital's disaster committee.	II
III	ACS, CD 20-3	Hospital drills that test the individual hospital's disaster plan must be conducted at least twice a year, including actual plan activations that can substitute for drills.	II

Solid Organ Procurement

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 21-1	The trauma facility must have an established relationship with a recognized OPO.	II
III	ACS, CD 21-2	A written policy must be in place for triggering notification of the regional OPO.	II
III	ACS, CD 21-3	It is essential that each trauma center have written protocols defining the clinical criteria and confirmatory tests for the diagnosis of brain death.	II

Performance Improvement

Level	Criteria and Source	Description of Criteria	Type
III	MI, CD 2-3	Have a written performance improvement plan, which addresses the following: 1. Have a process of event identification and levels of review which result in the development of corrective action plans, and methods of monitoring, re-evaluation, risk stratified benchmarking must be present and this process must be reviewed and updated annually. 2. Problem resolution, outcome improvements and assurance of safety (loop closure) must be readily identifiable through methods of monitoring, re-evaluation, benchmarking and documentation. 3. All criteria for trauma team activation have been determined by the trauma program and evaluated on an ongoing basis in the PI process. 4. The PI program identifies and reviews documents, findings, and corrective action on the following five (5) audit filters: • Any system and process issue • Trauma deaths in house or in emergency department • Any clinical care issues, including identifying and treatment of immediate life threatening injuries • Any issues regarding transfer decision • Trauma team activation times to trauma activation In addition, have a policy in place to review issues that revolve predominately around (1) system and process issues such as documentation and communication, (2) clinical care including identification and treatment of immediate life threatening injuries (ATLS); and (3) transfer decisions.	I
III	MI, CD 2-1	Demonstrate participation in the regional trauma network performance improvement as described in the Regional Trauma Networks work plans. Minimally, this includes demonstrating that the healthcare facility is participating in regional data collection, analysis and sharing. A brief description of planned or ongoing participation in the Regional Trauma Network performance improvement initiatives must be submitted with the designation application.	I
III	ACS, CD 5-25	The peer review committee must be chaired by the TMD.	II
III	ACS, CD 16-15	Each member of the committee must attend at least 50 percent of all multidisciplinary trauma peer review committee meetings.	II
III	ACS, CD 16-16	When the general surgeons cannot attend the multidisciplinary trauma peer review meeting, the trauma medical director must ensure that they receive and acknowledge the receipt of critical information generated at the multidisciplinary peer review meeting to close the loop.	II
III	ACS, CD 16-2	Problem resolution, outcome improvements, and assurance of safety (“loop closure”) must be readily identifiable through methods of monitoring, reevaluation, benchmarking, and documentation.	II
III	ACS, CD 16-3	The trauma PI program must integrate with hospital quality and patients safety effort and have a clearly defined reporting structure and method for provision feedback.	II
III	ACS, CD 2-18	Peer review must occur at regular intervals to ensure that the volume of cases is reviewed in a timely fashion.	II
III	ACS, CD 2-8 ACS, CD 2-9	Trauma surgeon response to the emergency department. Trauma surgeon on-call response for the highest level of activation must be continuously monitored and variances documented and reviewed for reason for delay, opportunities for improvement and corrective actions. The minimum threshold is within 30 minutes. Response times will be tracked from patient arrival. An 80 percent attendance threshold must be met for the highest level activations. The criteria must be monitored by its PI program.	I
III	ACS, CD 5-16	Other potential criteria for trauma team activation that have been determined by the trauma program to be included in the various levels of trauma activation must be evaluated on an ongoing basis in the PI program process to determine their positive predictive value in identifying patients who require the resources of the full trauma team.	II
III	ACS, CD 5-18	Programs that admit more than 10% of injured patients to non-surgical services must review all non-surgical admissions through the trauma PI process.	II
III	ACS, CD 15-1	The PI program must be supported by a reliable method of data collection that consistently obtains the information necessary to identify opportunities for improvement.	II
III	ACS, CD 2-17	The processes of event identification and levels of review must result in the development of corrective action plans, and methods of monitoring, reevaluation, benchmarking, and documentation.	II

Level III Criteria Quick Reference Guide

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 5-13	Trauma team activation criteria. Criteria for all levels of TTA must be defined and reviewed annually. Minimal acceptable criteria for the highest level of activation include the following (additional institutional criteria may also be included): 1. Confirmed systolic blood pressure less than 90 mmHG at any time in adults and age-specific hypotension in children. 2. Gunshot wounds to the neck, chest, or abdomen. 3. Glasgow Coma Scale Score less than 8, with mechanism attributed to trauma. 4. Transfer patients receiving blood to maintain vital signs. 5. Intubated patients transferred from the scene or patients with respiratory compromise or obstruction, including intubated patients who are transferred from another facility with ongoing respiratory compromise (does not include patients who are intubated at another facility and are now stable from a respiratory standpoint) 6. Emergency physician's discretion.	II
III	ACS, CD 16-8	Transfers to a higher level of care within the institution. These transfers must be routinely monitored, and cases identified must be reviewed to determine the rationale or transfer, adverse outcomes, and opportunities for improvement.	II
III	ACS, CD 2-18	Multidisciplinary trauma peer review committee must meet regularly, with required attendance of medical staff active in trauma resuscitation, to review systemic and care provider issues, as well as propose improvements to the care of the injured.	II
III	ACS, CD 3-3	Rigorous multidisciplinary performance improvement is essential to evaluate overtriage and undertriage rates to attain the optimal goal of less than 5 percent undertriage.	II
III	ACS, CD 3-6	The trauma facility must not be on bypass (diversion) more than 5 percent of the time.	II
III	ACS, CD 7-3	Occasionally, in a Level III trauma facility, it is necessary for the physician to leave the emergency department for short periods to address in-house emergencies. Such cases and their frequency must be reviewed by the performance improvement (PI) program to ensure that this practice does not adversely affect the care of patients in the emergency department.	II
III	ACS, CD 7-8	A representative from the ED must participate in the prehospital PI program.	II
III	ACS, CD 7-10	Emergency physicians must participate actively in the overall trauma PI program and the multidisciplinary trauma peer review committee.	II
III	ACS, CD 9-13	The PI process must review the appropriateness of the decision to transfer or retain major orthopaedic trauma cases.	II
III	ACS, CD 11-6	The availability of anesthesia services and delays in airway control or operations must be documented by the hospital performance improvement process.	II
III	ACS, CD 11-27	The PI program, at a minimum, must address the need for pulse oximetry, end-tidal carbon dioxide detection, arterial pressure monitoring, pulmonary artery catheterization, patient rewarming, and intracranial pressure monitoring.	II
III	ACS, CD 11-37	Changes in interpretation between preliminary and final radiology reports, as well as missed injuries, must be monitored through the PI program.	II
III	ACS, CD 11-47	In Level III facilities, if the CT technologist takes call from outside the hospital, the PI program must document the technologist's time of arrival at the hospital.	II
III	ACS, CD 11-57	In Level III trauma facilities, the PI program must review all ICU admissions and transfers of ICU patients to ensure that appropriate patients are being selected to remain at the Level III facility vs. being transferred to a higher level of care.	II
III	ACS, CD 11-60	For all levels of trauma facilities, the PI program must document that timely and appropriate ICU care and coverage are being provided.	II
III	ACS, CD 11-60	In all Level I, II and III trauma facilities, the timely response of credentialed providers to the ICU must be continuously monitored as part of the PI program	II
III	ACS, CD 11-69	Trauma patients must not be admitted or transferred by a primary care physician without the knowledge and consent of the trauma service, and the PI program should monitor adherence to this guideline.	II
III	ACS, CD 5-16	Trauma surgeon response time to other levels of TTA, and for back-up call response, should be determined and monitored. Variances should be documented and reviewed for reason for delay, opportunities for improvement, and corrective actions.	II
III	ACS, CD 5-16	Response parameters for consultants addressing time-critical injuries (for example, epidural hematoma, open fractures, and hemodynamically unstable pelvic fractures) must be determined and monitored.	II
III	ACS, CD 5-16	The emergency physician may initially evaluate the limited-tier trauma patient, but the center must have a clearly defined response expectation for the trauma surgical evaluation of those patients requiring admissions.	II
III	ACS, CD 16-7	Rates of undertriage and overtriage must be monitored and reviewed quarterly.	II
III	ACS, CD 5-18	Trauma patient admissions (NTDS definition) to a nonsurgical service is higher than 10 percent (Audit Filter).	II

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 9-14 ACS, CD 3-4 ACS, CD 4-3	Acute transfers out. All trauma patients who are diverted or transferred during the acute phase of hospitalization to another trauma center, acute care hospital, or specialty hospital (for example, burn center, re-implantation center, pediatric trauma center) or patients requiring cardiopulmonary bypass or when specialty personnel are unavailable must be subjected to individual case review to determine the rationale for transfer, appropriateness of care, and opportunities for improvement. Follow up from the center to which the patient was transferred should be obtained as part of the case review.	II
III	ACS, CD 8-9	Must monitor appropriate neurosurgical care at Level III trauma facilities.	II
III	ACS. CD 11-4 ACS, CD 11-7 ACS, CD 11-16 ACS, CD 11-18	Availability of the anesthesia service: • In-house anesthesia service (emergency department, intensive care unit, floor, and post-anesthesia care unit) must be available for the care of trauma patients • Operating room delays involving trauma patients because of lack of anesthesia support services must be identified and reviewed to determine the reason for delay, adverse outcomes, and opportunities for improvement.	II
III	ACS, CD 11-16 ACS, CD 11-18 ACS, CD 11-25	Response times of operating room and post-anesthesia care unit personnel when responding from outside the trauma center must be routinely monitored.	II
III	ACS, CD 11-16 ACS, CD 11-18	Delay in operating room availability must be routinely monitored. Any case that is associated with a significant delay or adverse outcome must be reviewed for reasons for delay and opportunities for improvement.	II
III	ACS, CD 11-32 ACS, CD 11-37	Rate of change in interpretation or radiologic studies should be categorized by RADPEER or similar criteria (describe process/scoring metric used).	I
III	ACS, CD 11-29 ACS, CD 11-30 ACS, CD 11-34 ACS, CD 11-35 ACS, CD 11-36	Response times of computed tomography technologist (30 minutes)/magnetic resonance imaging (60 minutes) technologist/Interventional radiology team (30 minutes) when responding from outside the trauma facility must be monitored.	I
III	ACS, CD 16-9	Solid organ donation rate must be monitored.	II
III	ACS, CD 16-10	Sufficient mechanisms must be available to identify events for review by the trauma PI program.	II
III	ACS, CD 16-12	There must be a process to address trauma program operational events.	II
III	ACS, CD 16-13	Documentation (minutes) reflects the review of operational events, and when appropriate, the analysis and proposed corrective actions.	II
III	ACS, CD 16-14	Mortality data, adverse events, and problem trends, and selected cases involving multiple specialties must undergo multidisciplinary trauma peer review.	II
III	ACS, CD 16-17	The multidisciplinary trauma peer review committee must systematically review mortalities, significant complications, and process variances associated with unanticipated outcomes, and determined opportunities for improvement.	II
III	ACS, CD 16-18	When an opportunity for improvement is identified, appropriate corrective actions to mitigate or prevent similar future adverse events must be developed, implemented, and clearly documented by the trauma Pi program.	II
III	ACS, CD 16-19	An effective performance improvement program demonstrates through clear documentation that identified opportunities for improvement lead to specific interventions that result in an alteration in conditions such that similar adverse events are less likely to occur.	II

Outreach and Education

Level	Criteria and Source	Description of Criteria	Type
III	ACS, CD 17-1	The trauma facility must engage in public and professional education.	II
III	ACS, CD 18-2	There must be someone in a leadership position that has injury prevention as part of his or her job description.	II
II	ACS, CD 18-1	Must have an organized and effective approach to injury prevention and must prioritize those efforts based on local trauma registry and epidemiologic data.	II
III	MI, CD 3-1	Participate in coordinating and implementing Regional Trauma Network injury prevention work plans and initiatives.	I
III	ACS, CD 18-3	Universal screening for alcohol use must be performed for all injured patients and must be documented.	II
III	ACS, CD 17-4	In Level I, II, and III trauma facilities, the hospital must provide a mechanism to offer trauma-related education to nurses involved in trauma care.	II
III	ACS, CD 6-9 ACS, CD 7-14 ACS, CD 11-86	The successful completion of ATLS course, at least once, is required for all general surgeons, emergency medicine physicians, and midlevel providers on the trauma team.	II