WAC 246-976-700
Trauma service standards.

| **WAC 246-976-700 Trauma Service Standards** | **Adult Levels** | | | | | **Pediatric Levels** | | |
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| **A facility with a designated trauma service must have:** | **I** | **II** | **III** | **IV** | **V** | **I P** | **II P** | **III P** |
| (1) A written trauma scope of service outlining the trauma care resources and capabilities available twenty-four hours every day for: | X | X | X | X | X | X | X | X |
| (a) Adult and pediatric trauma patient care; | X | X | X | X | X | | | |
| (b) Pediatric trauma patient care. | | | | | | X | X | X |
| (2) A trauma medical director responsible for the organization and direction of the trauma service, who: | X | X | X | X | X | | | |
| (a) Is a board-certified general surgeon; | X | X | | | | | | |
| (b) Is a board-certified general surgeon, **or** a general surgeon advanced cardiac life support (ACLS) trained with current certification in advanced trauma life support (ATLS); | | | X | | | | | |
| (c) Is a board-certified general surgeon or emergency physician, **or** a general surgeon ACLS trained with current certification in ATLS **or** a physician ACLS trained with current certification in ATLS; | | | | X | | | | |
| (d) Is a board-certified general surgeon or emergency physician, **or** a physician ACLS trained with current certification in ATLS, **or** a physician assistant or advanced registered nurse practitioner ACLS trained and who audits ATLS every four years; | | | | | X | | | |
| (e) Is a board-certified pediatric surgeon, **or** a board-certified general surgeon, with | | | | | | X | X | |

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| special competence in the care of pediatric patients; | | | | | | | | |
| (f) Is a board-certified general surgeon, with special competence in the care of pediatric patients, **or** a general surgeon ACLS trained, with current certification in ATLS and with special competence in the care of pediatric patients; | | | | | | | | X |
| (g) Meets the pediatric education requirement (PER) as defined in subsection (27) of this section. | X | X | X | X | X | X | X | X |
| (3) A trauma program manager or trauma service coordinator responsible for the overall operation of trauma service, who: | X | X | X | X | X | X | X | X |
| (a) Is a registered nurse; | X | X | X | X | X | X | X | X |
| (b) Has taken ACLS; | X | X | X | X | X | X | X | X |
| (c) Has successfully completed a trauma nursing core course (TNCC) or a department approved equivalent course, and thereafter completes twelve hours of trauma-related education every three-year designation period. The trauma education must include, but is not limited to, the following topics: | X | X | X | X | X | X | X | X |
| (i) Mechanism of injury; | X | X | X | X | X | X | X | X |
| (ii) Shock and fluid resuscitation; | X | X | X | X | X | X | X | X |
| (iii) Initial assessment; | X | X | X | X | X | X | X | X |
| (iv) Stabilization and transport; | X | X | X | X | X | X | X | X |
| (d) Has taken pediatric advanced life support (PALS) or emergency nursing pediatric course (ENPC), and thereafter meets the PER contact hours as defined in subsection (27) of this section; | X | X | X | X | X | | | |
| (e) Has current PALS or ENPC certification; | | | | | | X | X | X |
| (f) Has attended a trauma program manager orientation course provided by the department or a department approved | X | X | X | X | X | X | X | X |

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| equivalent, within the first eighteen months in the role. | | | | | | | | |
| (4) A multidisciplinary trauma quality improvement program that must: | X | X | X | X | X | X | X | X |
| (a) Be lead by the multidisciplinary trauma service committee with the trauma medical director as chair of the committee; | X | X | X | X | X | X | X | X |
| (b) Demonstrate a continuous quality improvement process; | X | X | X | X | X | X | X | X |
| (c) Have membership representation and participation that reflects the facility's trauma scope of service; | X | X | X | X | X | X | X | X |
| (d) Have an organizational structure that facilitates the process of quality improvement, with a reporting relationship to the hospital's administrative team and medical executive committee; | X | X | X | X | X | X | X | X |
| (e) Have authority to establish trauma care standards and implement patient care policies, procedures, guidelines, and protocols throughout the hospital; | X | X | X | X | X | X | X | X |
| (f) Have a process to monitor and track compliance with the trauma care standards using audit filters and benchmarks; | X | X | X | X | X | X | X | X |
| (g) Have a process to evaluate the care provided to trauma patients and to resolve identified prehospital, physician, nursing, or system issues; | X | X | X | X | X | X | X | X |
| (h) Have a process for correcting problems or deficiencies; | X | X | X | X | X | X | X | X |
| (i) Have a process to analyze, evaluate, and measure the effect of corrective actions to determine whether issue resolution was achieved; | X | X | X | X | X | X | X | X |
| (j) Have a process to continuously evaluate compliance with full and modified (if used) trauma team activation criteria; | X | X | X | X | X | X | X | X |

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| (k) Have assurance from other hospital quality improvement committees, including peer review if conducted separately from the trauma committee, that resolution was achieved on trauma-related issues; | X | X | X | X | X | X | X | X |
| (l) Have a process to ensure the confidentiality of patient and provider information, in accordance with RCW 70.41.200 and 70.168.090; | X | X | X | X | X | X | X | X |
| (m) Have a process to communicate with, and provide feedback to, referring trauma services and trauma care providers; | X | X | X | X | X | X | X | X |
| (n) Have a current trauma quality improvement plan that outlines the trauma service's quality improvement process, as defined in this subsection; | X | X | X | X | X | X | X | X |
| (o) For level III, IV, V trauma services or level III pediatric trauma services with a total annual trauma volume of less than one hundred patients, the trauma service may integrate trauma quality improvement into the hospital's quality improvement program; however, trauma care must be formally addressed in accordance with the quality improvement requirements in this subsection. In that case, the trauma medical director is not required to serve as chair. | | | X | X | X | | | X |
| (5) Written trauma service standards of care to ensure appropriate care throughout the facility for: | X | X | X | X | X | X | X | X |
| (a) Adult and pediatric trauma patients; | X | X | X | X | X | | | |
| (b) Pediatric trauma patients. | | | | | | X | X | X |
| (6) Participation in the regional quality improvement program as defined in WAC 246-976-910. | X | X | X | X | X | X | X | X |
| (7) Participation in the Washington state trauma registry as defined in WAC 246-976-430. | X | X | X | X | X | X | X | X |
| (8) Written transfer-in guidelines | X | X | X | X | X | X | X | X |

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| consistent with the facility's designation level and trauma scope of service. The guidelines must identify the type, severity and complexity of injuries the facility can safely accept, admit, and provide with definitive care. | | | | | | | | |
| (9) Written transfer-out guidelines consistent with the facility's designation level and trauma scope of service. The guidelines must identify the type, severity and complexity of injuries that exceed the resources and capabilities of the trauma service. | X | X | X | X | X | X | X | X |
| (10) Written interfacility transfer agreements with all trauma services that receive the facility's trauma patients. Agreements must have a process to identify medical control during the interfacility transfer, and address the responsibilities of the trauma service, the receiving hospital, and the verified prehospital transport agency. All trauma patients must be transported by a trauma verified prehospital transport agency. | X | X | X | X | X | X | X | X |
| (11) An air medical transport plan addressing the receipt or transfer of trauma patients with a heli-stop, landing zone, or airport located close enough to permit the facility to receive or transfer trauma patients by fixed-wing or rotary-wing aircraft. | X | X | X | X | X | X | X | X |
| (12) A written diversion protocol for the emergency department to divert trauma patients from the field to another trauma service when resources are temporarily unavailable. The process must include:<br><br>(a)Trauma service and patient criteria used to decide when diversion is necessary;<br><br>(b) How the divert status will be communicated to the nearby trauma services and prehospital agencies; | X | X | X | X | X | X | X | X |

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| (c) How the diversion will be coordinated with the appropriate prehospital agency; | | | | | | | | |
| (d) A method of documenting/tracking when the trauma service is on trauma divert, including the date, time, duration, reason, and decision maker. | | | | | | | | |
| (13) A trauma team activation protocol consistent with the facility's trauma scope of service. The protocol must: | X | X | X | X | X | X | X | X |
| (a) Define the physiologic, anatomic, and mechanism of injury criteria used to activate the full and modified (if used) trauma teams; | X | X | X | X | X | X | X | X |
| (b) Identify members of the full and modified (if used) trauma teams consistent with the provider requirements of this chapter; | X | X | X | X | X | X | X | X |
| (c) Define the process to activate the trauma team. The process must: | X | X | X | X | X | X | X | X |
| (i) Consistently apply the trauma service's established criteria; | X | X | X | X | X | X | X | X |
| (ii) Use information obtained from prehospital providers or an emergency department assessment for patients not delivered by a prehospital agency; | X | X | X | X | X | X | X | X |
| (iii) Be applied regardless of time post injury or previous care, whether delivered by prehospital or other means and whether transported from the scene or transferred from another facility; | X | X | X | X | X | X | X | X |
| (iv) Include a method to upgrade a modified activation to a full activation when newly acquired information warrants additional capabilities and resources; | X | X | X | X | X | X | X | X |
| (v) For full trauma team activations, include the mandatory presence of a general surgeon. The general surgeon assumes leadership and overall care - using professional judgment regarding the need for surgery and/or transfer; | X | X | X | | | X | X | X |

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| (vi) For full trauma team activations, include the mandatory presence of a general surgeon if general surgery services are included in the facility's trauma scope of service. The general surgeon assumes leadership and overall care - using professional judgment regarding the need for surgery and/or transfer; | | | | X | | | | |
| (vii) For trauma team activations in pediatric designated trauma services (within five minutes for level I, twenty minutes for level II or thirty minutes for level III), one of the following pediatric physician specialists must respond:<br><br>• A pediatric surgeon;<br><br>• A pediatric emergency medicine physician;<br><br>• A pediatric intensivist;<br><br>• A pediatrician;<br><br>• A postgraduate year two or higher pediatric resident. | | | | | | X | X | X |
| (14) Emergency care services available twenty-four hours every day, with: | X | X | X | X | X | X | X | X |
| (a) An emergency department (except for level V clinics); | X | X | X | X | X | X | X | X |
| (b) The ability to resuscitate and stabilize adult and pediatric trauma patients in a designated resuscitation area; | X | X | X | X | X | | | |
| (c) The ability to resuscitate and stabilize pediatric trauma patients in a designated resuscitation area; | | | | | | X | X | X |
| (d) A medical director, who: | X | X | X | | | X | X | X |
| (i) Is board-certified in emergency medicine **or** board-certified in general surgery **or** is board-certified in another relevant specialty practicing emergency | X | X | X | | | | | |

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| medicine as their primary practice; | | | | | | | | |
| (ii) Is board-certified in pediatric emergency medicine, **or** board-certified in emergency medicine with special competence in the care of pediatric patients **or** board-certified in general surgery with special competence in the care of pediatric patients, **or** board-certified in a relevant specialty practicing emergency medicine as their primary practice with special competence in the care of pediatric patients; | | | | | | X | X | X |
| (e) Emergency physicians who: | X | X | X | X | X | X | X | X |
| (i) Are board-certified in emergency medicine **or** board-certified in a relevant specialty practicing emergency medicine as their primary practice. This requirement can be met by a postgraduate year two or higher emergency medicine or general surgery resident working under the direct supervision of the attending emergency physician. The resident must be available within five minutes of notification of the patient's arrival to provide leadership and care until arrival of the general surgeon; | X | X | | | | | | |
| (ii) Are board-certified in pediatric emergency medicine, **or** board-certified in emergency medicine with special competence in the care of pediatric patients, **or** board-certified in a relevant specialty practicing emergency medicine as their primary practice with special competence in the care of pediatric patients. This requirement can be met by a postgraduate year two or higher emergency medicine or general surgery resident with special competence in the care of pediatric trauma patients and working under the direct supervision of the attending emergency physician. The resident must be available within five minutes of notification of the patient's arrival, to provide leadership and care until arrival of the general surgeon; | | | | | | X | X | |

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| (iii) Are board-certified in emergency medicine or another relevant specialty practicing emergency medicine as their primary practice, **or** physicians practicing emergency medicine as their primary practice with current certification in ACLS and ATLS; | | | X | | | | | |
| (iv) Are board-certified pediatric emergency medicine, **or** board-certified in emergency medicine or surgery, with special competence in the care of pediatric patients, **or** board-certified in a relevant specialty practicing emergency medicine as their primary practice, with special competence in the care of pediatric patients, **or** physicians with current certification in ATLS, practicing emergency medicine as their primary practice, with special competence in the care of pediatric patients; | | | | | | | | X |
| (v) Are board-certified in emergency medicine or another relevant specialty and practicing emergency medicine as their primary practice, **or** physicians with current certification in ACLS and ATLS. A physician assistant or advanced registered nurse practitioner current in ACLS and who audits ATLS every four years may initiate evaluation and treatment upon the patient's arrival in the emergency department until the arrival of the physician; | | | | X | | | | |
| (vi) Are board-certified or qualified in emergency medicine, surgery, or other relevant specialty and practicing emergency medicine as their primary practice, **or** physicians with current certification in ACLS and ATLS **or** physician assistants (PAs), or advanced registered nurse practitioners (ARNPs) with current certification in ACLS and who audit ATLS every four years; | | | | | X | | | |
| (vii) Are available within five minutes of notification of the patient's arrival in the | X | X | X | | | X | X | X |

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| emergency department; | | | | | | | | |
| (viii) Are on-call and available within twenty minutes of notification of the patient's arrival in the emergency department; | | | | X | X | | | |
| (ix) Are currently certified in ACLS and ATLS. This requirement applies to all emergency physicians and residents who care for trauma patients in the emergency department except this requirement does not apply to physicians who are board-certified in emergency medicine **or** board-certified in another relevant specialty and practicing emergency medicine as their primary practice; | X | X | X | X | X | | | |
| (x) Are currently certified in ATLS. This requirement applies to all emergency physicians and residents who care for pediatric patients in the emergency department except this requirement does not apply to physicians who are board-certified in pediatric emergency medicine **or** board-certified in emergency medicine **or** board-certified in another relevant specialty and practicing emergency medicine as their primary practice; | | | | | | X | X | X |
| (xi) Meet the PER as defined in subsection (27) of this section; | X | X | X | X | X | X | X | X |
| (f) Emergency care registered nurses (RNs), who: | X | X | X | X | X | X | X | X |
| (i) Are in the emergency department and available within five minutes of notification of patient's arrival; | X | X | X | | | X | X | X |
| (ii) Are in-house, and available within five minutes of notification of the patient's arrival (except for level V clinics); | | | | X | X | | | |
| (iii) Have current certification in ACLS; | X | X | X | X | X | | | |
| (iv) Have successfully completed a trauma nurse core course (TNCC) or department approved equivalent course; | X | X | X | X | X | X | X | X |

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| (v) Have completed twelve hours of trauma related education every designation period. The trauma education must include, but is not limited to, the following topics:<br>• Mechanism of injury;<br>• Shock and fluid resuscitation;<br>• Initial assessment;<br>• Stabilization and transport; | X | X | X | X | | X | X | X |
| (vi) Meet the PER as defined in subsection (27) of this section. | X | X | X | X | X | X | X | X |
| (g) Standard emergency equipment for the resuscitation and life support of adult and pediatric trauma patients, including: | X | X | X | X | X | X | X | X |
| (i) Immobilization devices: | X | X | X | X | X | X | X | X |
| ▪ Back board; | X | X | X | X | X | X | X | X |
| ▪ Cervical injury; | X | X | X | X | X | X | X | X |
| ▪ Long-bone; | X | X | X | X | X | X | X | X |
| (ii) Infusion control device: | X | X | X | X | X | X | X | X |
| ▪ Rapid infusion capability; | X | X | X | | | X | X | X |
| (iii) Intraosseous needles; | X | X | X | X | X | X | X | X |
| (iv) Sterile surgical sets: | X | X | X | X | X | X | X | X |
| ▪ Chest tubes with closed drainage devices; | X | X | X | X | X | X | X | X |
| ▪ Emergency transcutaneous airway; | X | X | X | X | X | X | X | X |
| ▪ Peritoneal lavage; | X | X | X | X | | X | X | X |
| ▪ Thoracotomy; | X | X | X | | | X | X | X |
| (v) Thermal control equipment: | X | X | X | X | X | X | X | X |
| ▪ Blood and fluid warming; | X | X | X | X | X | X | X | X |
| ▪ Devices for assuring warmth during transport; | X | X | X | X | X | X | X | X |

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| ▪ Expanded scale thermometer capable of detecting hypothermia; | X | X | X | X | X | X | X | X |
| ▪ Patient warming and cooling; | X | X | X | X | X | X | X | X |
| (vi) Other equipment: | X | X | X | X | X | X | X | X |
| ▪ Medication chart, tape or other system to assure ready access to information on proper doses-per-kilogram for resuscitation drugs and equipment sizes for pediatric patients; | X | X | X | X | X | X | X | X |
| ▪ Pediatric emergency airway equipment readily available or transported in-house with the pediatric patient for evaluation, treatment or diagnostics, including:<br>• Bag-valve masks;<br>• Face masks;<br>• Oral/nasal airways. | X | X | X | X | X | X | X | X |
| (15) Respiratory therapy services, with a respiratory care practitioner available within five minutes of notification of patient's arrival. | X | X | X | | | X | X | X |
| (16) Diagnostic imaging services (except for level V clinics), with: | X | X | X | X | X | X | X | X |
| (a) A radiologist in person or by teleradiology, who is: | X | X | X | | | X | X | X |
| (i) On-call and available within twenty minutes of the trauma team leader's request; | X | X | | | | X | X | |
| (ii) On-call and available within thirty minutes of the trauma team leader's request; | | | X | | | | | X |
| (b) Personnel able to perform routine radiological capabilities, who are: | X | X | X | X | X | X | X | X |
| (i) Available within five minutes of notification of the patient's arrival; | X | X | | | | X | X | |
| (ii) On-call and available within twenty minutes of notification of the patient's | | | X | X | X | | | X |

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| arrival; | | | | | | | | |
| (c) A technologist able to perform computerized tomography, who is: | X | X | X | | | X | X | X |
| (i) Available within five minutes of the trauma team leader's request; | X | | | | | X | | |
| (ii) On-call and available within twenty minutes of the trauma team leader's request; | | X | X | | | | X | X |
| (d) Angiography with a technologist on-call and available within thirty minutes of the trauma team leader's request; | X | X | | | | X | X | |
| (e) Magnetic resonance imaging, with a technologist on-call and available within sixty minutes of the trauma team leader's request; | X | X | | | | X | X | |
| (f) Sonography with a technologist on-call and available within thirty minutes of the trauma team leader's request; | X | X | | | | X | X | |
| (g) Interventional radiology services on-call and available within thirty minutes of the trauma team leader's request. | X | X | | | | X | X | |
| (17) Clinical laboratory services (except for level V clinics), with: | X | X | X | X | X | X | X | X |
| (a) Lab services available within five minutes of notification of the patient's arrival; | X | X | X | | | X | X | X |
| (b) Lab services on-call and available within twenty minutes of notification of the patient's arrival; | | | | X | X | | | |
| (c) Blood gases and pH determination; | X | X | X | X | | X | X | X |
| (d) Coagulation studies; | X | X | X | X | X | X | X | X |
| (e) Drug or toxicology measurements; | X | X | X | X | X | X | X | X |
| (f) Microbiology; | X | X | X | X | X | X | X | X |
| (g) Serum alcohol determination; | X | X | X | X | X | X | X | X |
| (h) Serum and urine osmolality; | X | X | | | | X | X | |
| (i) Standard analysis of blood, urine, and | X | X | X | X | X | X | X | X |

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| other body fluids. | | | | | | | | |
| (18) Blood and blood-component services (except for level V clinics), with: | X | X | X | X | X | X | X | X |
| (a) Ability to obtain blood typing and crossmatching; | X | X | X | X | X | X | X | X |
| (b) Autotransfusion; | X | X | X | | | X | X | X |
| (c) Blood and blood components available from in-house or through community services, to meet patient needs; | X | X | X | X | X | X | X | X |
| (d) Blood storage capability; | X | X | X | X | | X | X | X |
| (e) Noncrossmatched blood available on patient arrival in the emergency department; | X | X | X | X | X | X | X | X |
| (f) Policies and procedures for massive transfusion. | X | X | X | X | | X | X | X |
| (19) General surgery services, with: | X | X | X | | | X | X | X |
| (a) Surgeons who: | X | X | X | | | X | X | X |
| (i) Are board-certified in general surgery and available within five minutes of notification of the patient's arrival when the full trauma team is activated. This requirement can be met by a postgraduate year four or higher surgery resident. The resident may initiate evaluation and treatment upon the patient's arrival in the emergency department until arrival of the general surgeon. In this case the general surgeon must be available within twenty minutes of notification of patient's arrival; | X | | | | | | | |
| (ii) Are board-certified in pediatric surgery or board-certified in general surgery with special competence in the care of pediatric patients and are available within five minutes of notification of the patient's arrival when the full trauma team is activated. This requirement can be met by a post graduate year four or higher pediatric surgery resident or a general surgery resident with special competence | | | | | | X | | |

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| in the care of pediatric patients. The resident may initiate evaluation and treatment upon the patient's arrival in the emergency department until arrival of the pediatric or general surgeon. In this case the pediatric or general surgeon must be available within twenty minutes of notification of patient's arrival; | | | | | | | | |
| (iii) Are board-certified in general surgery. For full trauma team activations, the surgeon must be in the emergency department upon patient arrival when prehospital estimated time of arrival (ETA) is twenty minutes or more. Otherwise the surgeon must be in the emergency department within twenty minutes of notification of patient's arrival. This requirement can be met by a postgraduate year four or higher surgery resident. The resident may initiate evaluation and treatment upon the patient's arrival in the emergency department until arrival of the general surgeon; | | X | | | | | | |
| (iv) Are board-certified in pediatric surgery **or** board-certified in general surgery with special competence in the care of pediatric patients. For full trauma team activations, the surgeon must be in the emergency department upon patient arrival when prehospital estimated time of arrival (ETA) is twenty minutes or more. Otherwise the surgeon must be in the emergency department within twenty minutes of notification of patient's arrival. This requirement can be met by a postgraduate year four or higher pediatric surgery resident or a general surgical resident with special competence in the care of pediatric patients. The resident may initiate evaluation and treatment upon the patient's arrival in the emergency department until arrival of the pediatric or general surgeon; | | | | | | | X | |
| (v) Are board-certified or trained in ACLS | | | X | | | | | |

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| and currently certified in ATLS. For full trauma team activations, the surgeon must be in the emergency department upon patient arrival when prehospital estimated time of arrival (ETA) is thirty minutes or more. Otherwise the surgeon must be in the emergency department within thirty minutes of notification of patient's arrival; | | | | | | | | |
| (vi) Are board-certified or board-qualified, with special competence in the care of pediatric patients. For full trauma team activations, the surgeon must be in the emergency department upon patient arrival when prehospital estimated time of arrival (ETA) is thirty minutes or more. Otherwise the surgeon must be in the emergency department within thirty minutes of notification of patient's arrival; | | | | | | | | X |
| (vii) Are trained in ACLS and currently certified in ATLS. This requirement applies to all surgeons and residents caring for trauma patients except this requirement does not apply to surgeons who are board certified in general surgery; | X | X | X | | | | | |
| (viii) Are currently certified in ATLS. This requirement applies to all surgeons and residents caring for pediatric trauma patients except this requirement does not apply to surgeons who are board certified in pediatric or general surgery; | | | | | | X | X | X |
| (ix) Meet the PER as defined in subsection (27) of this section; | X | X | X | | | X | X | X |
| (b) A written plan for general surgery coverage, if the general surgeon on call for trauma is otherwise clinically engaged. The plan must take into consideration the trauma service's total patient volume, patient acuity, geographic proximity to other trauma services, depth of trauma care resources, and the trauma scope of service. The plan must be monitored through the trauma service's trauma | X | X | X | | | X | X | X |

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| quality improvement program; | | | | | | | | |
| (c) For level IV, general surgery services that meet all level III general surgery service standards if the facility's trauma scope of service includes general surgery services twenty-four hours every day, **or** transfer trauma patients who need general surgery services to a designated trauma service with general surgery services available. | | | | X | | | | |
| (20) Neurosurgery services with neurosurgeons, who are: | X | X | | | | X | X | |
| (a) Board-certified, and: | X | | | | | X | | |
| (i) Available within five minutes of the trauma team leader's request; | | | | | | | | |
| (ii) This requirement can be met by a postgraduate year four or higher neurosurgery resident. The resident may initiate evaluation and treatment upon the patient's arrival in the emergency department until arrival of the neurosurgeon. In this case the neurosurgeon must be available within thirty minutes of the trauma team leader's request; | | | | | | | | |
| (b) Board-certified or board-qualified and on-call and available within thirty minutes of the trauma team leader's request; | | X | | | | | X | |
| (c) For level III and IV, board-certified or board-qualified and on-call and available within thirty minutes of the trauma team leader's request if the facility's trauma scope of service includes neurosurgery services twenty-four hours every day **or** transfer trauma patients who need neurosurgery services to a designated trauma service with neurosurgery services available. | | | X | X | | | | X |
| (21) Surgical services on-call and available within thirty minutes of the trauma team leader's request for: | X | X | X | | | X | X | X |

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| (a) Cardiac surgery; | X | | | | | X | | |
| (b) Microsurgery; | X | | | | | X | | |
| (c) Obstetric surgery **or** for level III trauma services, a plan to manage the pregnant trauma patient; | X | X | X | | | X | X | X |
| (d) Orthopedic surgery; | X | X | X | | | X | X | X |
| (e) For level IV, orthopedic surgery services on-call and available within thirty minutes of the trauma team leader's request if the facility's trauma scope of service includes orthopedic surgery services twenty-four hours every day, **or** transfer trauma patients who need orthopedic surgery services to a designated trauma service with orthopedic surgery services available; | | | | X | | | | |
| (f) Thoracic surgery; | X | X | | | | X | X | |
| (g) Urologic surgery; | X | X | | | | X | X | |
| (h) Vascular surgery. | X | X | | | | X | X | |
| (22) Surgical services on-call for patient consultation or management at the trauma team leader's request for: | X | X | | | | X | X | |
| (a) Cranial facial surgery; | X | X | | | | X | X | |
| (b) Gynecologic surgery; | X | X | | | | X | X | |
| (c) Ophthalmic surgery; | X | X | | | | X | X | |
| (d) Plastic surgery. | X | X | | | | X | X | |
| (23) Anesthesiology services, with board-certified anesthesiologists or certified registered nurse anesthetists (CRNAs), who: | X | X | X | | | X | X | X |
| (a) Are available within five minutes of the trauma team leader's request; | X | | | | | X | | |
| (b) Are on-call and available within twenty minutes of the trauma team leader's request; | | X | | | | | X | |
| (c) Are on-call and available within thirty minutes of the trauma team leader's | | | X | | | | | X |

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| request; | | | | | | | | |
| (d) Are ACLS trained except this requirement does not apply to physicians board-certified in anesthesiology; | X | X | X | | | X | X | X |
| (e) Meet the PER as defined in subsection (27) of this section. | X | X | X | | | X | X | X |
| (f) For level IV, meet all level III anesthesiology service standards, if the facility's trauma scope of service includes surgery services twenty-four hours every day **or** transfer trauma patients who need surgery services to a designated trauma service with surgery services available. | | | | X | | | | |
| (24) Operating room services, with: | X | X | X | | | X | X | X |
| (a) Hospital staff responsible for opening and preparing the operating room available within five minutes of notification; | X | X | X | | | X | X | X |
| (b) Operating room staff on-call and available within twenty minutes of notification; | X | X | | | | X | X | |
| (c) Operating room staff on-call and available within thirty minutes of notification; | | | X | | | | | X |
| (d) A written plan to mobilize additional surgical team members for trauma patient surgery; | X | X | X | | | X | X | X |
| (e) Standard surgery instruments and equipment needed to perform operations on adult and pediatric patients, including: | X | X | X | | | X | X | X |
| (i) Autologous blood recovery and transfusion; | X | X | X | | | X | X | X |
| (ii) Bronchoscopic capability; | X | X | X | | | X | X | X |
| (iii) Cardiopulmonary bypass; | X | X | | | | X | X | |
| (iv) Craniotomy set; | X | X | | | | X | X | |
| (v) Endoscopes; | X | X | X | | | X | X | X |
| (vi) Rapid infusion capability; | X | X | X | | | X | X | X |

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| (vii) Thermal control equipment: | X | X | X | | | X | X | X |
| ▪ Blood and fluid warming; | X | X | X | | | X | X | X |
| ▪ Patient warming and cooling; | X | X | X | | | X | X | X |
| (f) For level IV, operating room services that meet all level III operating room service standards if the facility's trauma scope of care includes surgery services twenty-four hours every day **or** transfer trauma patients who need surgery services to a designated trauma service with surgery services available. | | | | X | | | | |
| (25) Post anesthesia care services with: | X | X | X | | | X | X | X |
| (a) At least one registered nurse available twenty-four hours every day; | X | | | | | X | | |
| (b) At least one registered nurse on-call and available twenty-four hours every day; | | X | X | | | | X | X |
| (c) Registered nurses who are ACLS trained; | X | X | X | | | X | X | X |
| (d) For level IV, post anesthesia care services that meet all level III post anesthesia care service standards if the facility's trauma scope of care includes general surgery services twenty-four hours every day **or** transfer trauma patients who need surgery services to a designated trauma service with surgery services available. | | | | X | | | | |
| (26) Critical care services, with: | X | X | X | | | X | X | |
| (a) A critical care medical director, who is: | X | X | X | | | X | X | |
| (i) Board-certified in: | X | | | | | | | |
| (A) Surgery and critical care; | X | | | | | | | |
| (B) Pediatric critical care; | | | | | | X | | |
| (ii) Board-certified in critical care **or** board-certified in surgery, internal medicine or anesthesiology with special competence in critical care; | | X | X | | | | | |

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| (iii) Board-certified in critical care, with special competence in pediatric critical care **or** is board-certified in surgery, internal medicine or anesthesiology, with special competence in pediatric critical care; | | | | | | | X | |
| (iv) Responsible for coordinating with the attending physician for trauma patient care; | X | X | X | | | X | X | |
| (b) Critical care registered nurses, who: | X | X | X | | | X | X | |
| (i) Are ACLS trained; | X | X | X | | | | | |
| (ii) Have special competence in pediatric critical care; | | | | | | X | X | |
| (iii) Have completed a minimum of six contact hours of trauma specific education every three-year designation period; | X | X | | | | X | X | |
| (iv) Have completed a minimum of three contact hours of trauma specific education every three-year designation period; | | | X | | | | | |
| (c) A physician directed code team; | X | X | X | | | X | X | |
| (d) Pediatric patient isolation capacity; | | | | | | X | X | |
| (e) General surgery consults for critical care trauma patients **or** if intensivists are the primary admitting nonsurgical physician caring for trauma patients, the intensivists must complete a minimum of twelve hours of trauma critical care specific continuing medical education (CME) every three-year designation period; | X | X | X | | | X | X | X |
| (f) Standard critical care equipment for adult and pediatric trauma patients, including: | X | X | X | | | X | X | |
| (i) Cardiac devices: | X | X | X | | | X | X | |
| ▪ Cardiac pacing capabilities; | X | X | X | | | X | X | |
| ▪ Cardiac monitor with at least two pressure monitoring modules (cardiac output and hard copy recording), with the | X | X | X | | | X | X | |

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| capability to continuously monitor heart rate, respiratory rate, and temperature; | | | | | | | | |
| (ii) Intracranial pressure monitoring devices; | X | X | | | | X | X | |
| (iii) Intravenous supplies: | X | X | X | | | X | X | |
| ▪ Infusion control device; | X | X | X | | | X | X | |
| ▪ Rapid infusion capability; | X | X | X | | | X | X | |
| (iv) Sterile surgical sets: | X | X | X | | | X | X | |
| ▪ Chest tubes; | X | X | X | | | X | X | |
| ▪ Emergency surgical airway; | X | X | X | | | X | X | |
| ▪ Peritoneal lavage; | X | X | X | | | X | X | |
| ▪ Thoracotomy; | X | X | X | | | X | X | |
| (v) Thermal control equipment: | X | X | X | | | X | X | |
| ▪ Blood and fluid warming; | X | X | X | | | X | X | |
| ▪ Devices for assuring warmth during transport; | X | X | X | | | X | X | |
| ▪ Expanded scale thermometer capable of detecting hypothermia; | X | X | X | | | X | X | |
| ▪ Patient warming and cooling; | X | X | X | | | X | X | |
| (g) A written policy to transfer all pediatric trauma patients who need critical care services to a pediatric designated trauma service with critical care services available; | X | X | X | | | | | |
| (h) For level IV, critical care services that meet all level III critical care service standards, if the facility's trauma scope of service includes critical care services for trauma patients twenty-four hours every day **or** transfer trauma patients who need critical care services to a designated trauma service with critical care services available; | | | | X | | | | |
| (i) For level III pediatric trauma services, critical care services that meet all level II pediatric critical care service standards if | | | | | | | | X |

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| the facility's trauma scope of care includes pediatric critical care services for trauma patients twenty-four hours every day **or** transfer pediatric trauma patients who need critical care services to a designated pediatric trauma service, with pediatric critical care services available. | | | | | | | | |
| (27) Pediatric education requirement (PER): | X | X | X | X | X | X | X | X |
| (a) PER must be met by the following providers who are directly involved in the initial resuscitation and stabilization of pediatric trauma patients: | X | X | X | X | X | X | X | X |
| (i) Emergency department physicians; | X | X | X | X | X | X | X | X |
| (ii) Emergency department registered nurses; | X | X | X | X | X | X | X | X |
| (iii) Physician assistants or ARNPs who initiate evaluation and treatment prior to the arrival of the physician in the emergency department; | | | | X | X | | | |
| (iv) Emergency medicine or surgical residents who initiate care prior to the arrival of the emergency physician; | X | X | | | | X | X | |
| (v) General surgeons; | X | X | X | | | X | X | X |
| (vi) Surgical residents who initiate care prior to the arrival of the general surgeon; | X | X | | | | X | X | |
| (vii) Anesthesiologists and CRNAs; | X | X | X | | | X | X | X |
| (viii) General surgeons, anesthesiologists and CRNAs if the facility's trauma scope of service includes general surgery services twenty-four hours every day; | | | | X | | | | |
| (ix) Intensivists involved in the resuscitation, stabilization and in-patient care of pediatric trauma patients; | | | | | | X | X | X |
| (b) PER must be met by completing pediatric specific contact hours as defined below: | X | X | X | X | X | X | X | X |
| (i) Five contact hours per provider during | X | X | X | X | X | | | |

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| each three-year designation period; | | | | | | | | |
| (ii) Seven contact hours per provider during each three-year designation period; | | | | | | X | X | X |
| (iii) Contact hours should include, but are not limited to, the following topics:<br><br>• Initial stabilization and transfer of pediatric trauma;<br><br>• Assessment and management of pediatric airway and breathing;<br><br>• Assessment and management of pediatric shock, including vascular access;<br><br>• Assessment and management of pediatric head injuries;<br><br>• Assessment and management of pediatric blunt abdominal trauma; | X | X | X | X | X | X | X | X |
| (iv) Contact hours may be accomplished through one or more, but not limited to, the following methods:<br><br>• Review and discussion of individual pediatric trauma cases within the trauma quality improvement program;<br><br>• Staff meetings;<br><br>• Classes, formal or informal;<br><br>• Web-based learning;<br><br>• Certification in ATLS, PALS, APLS, ENPC, or other department approved equivalents;<br><br>• Other methods of learning which appropriately communicates the required topics listed in this section. | X | X | X | X | X | X | X | X |
| (28) Acute dialysis services, **or** must transfer trauma patients needing dialysis. | X | X | X | X | X | X | X | X |

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| (29) A burn center, in accordance with the American Burn Association, to care for burn patients, **or** must transfer burn patients to a burn center, in accordance with the American Burn Association transfer guidelines. | X | X | X | X | X | X | X | X |
| (30) Services on-call for consultation or patient management: | X | X | X | | | X | X | X |
| (a) Cardiology; | X | X | | | | X | X | |
| (b) Gastroenterology; | X | X | | | | X | X | |
| (c) Hematology; | X | X | | | | X | X | |
| (d) Infectious disease specialists; | X | X | | | | X | X | |
| (e) Internal medicine; | X | X | X | | | | | |
| (f) Nephrology; | X | X | | | | X | X | |
| (g) Neurology; | X | X | | | | X | X | |
| (h) Pediatric neurology; | | | | | | X | X | |
| (i) Pathology; | X | X | X | | | X | X | X |
| (j) Pediatrician; | X | X | | | | X | X | X |
| (k) Pulmonology; | X | X | | | | X | X | |
| (l) Psychiatry **or** a plan for management of the psychiatric trauma patient. | X | X | | | | X | X | |
| (31) Ancillary services available for trauma patient care: | X | X | X | X | X | X | X | X |
| (a) Adult protective services; | X | X | X | X | X | | | |
| (b) Child protective services; | X | X | X | X | X | X | X | X |
| (c) Chemical dependency services; | X | X | X | | | X | X | X |
| (d) Nutritionist services; | X | X | X | X | | X | X | X |
| (e) Occupational therapy services; | X | X | X | | | X | X | X |
| (f) Pastoral or spiritual care; | X | X | X | X | X | X | X | X |
| (g) Pediatric therapeutic recreation/child life specialist; | | | | | | X | X | |
| (h) Pharmacy services, with an in-house pharmacist; | X | | | | | X | | |

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| (i) Pharmacy services; | | X | X | X | X | | X | X |
| (j) Physical therapy services; | X | X | X | X | | X | X | X |
| (k) Psychological services; | X | X | X | | | X | X | X |
| (l) Social services; | X | X | X | X | | X | X | X |
| (m) Speech therapy services. | X | X | X | | | X | X | X |
| (32) A trauma care outreach program, including: | X | X | | | | X | X | |
| (a) Telephone consultations with physicians of the community and outlying areas; | | | | | | | | |
| (b) On-site consultations with physicians of the community and outlying areas. | | | | | | | | |
| (33) Injury prevention, including: | X | X | X | X | X | X | X | X |
| (a) A public injury prevention education program; | X | X | X | | | X | X | X |
| (b) Participation in community or regional injury prevention activities; | X | X | X | X | X | X | X | X |
| (c) A written plan for drug and alcohol screening and brief intervention and referral. | X | X | X | X | X | X | X | X |
| (34) A formal trauma education training program, for: | X | X | | | | X | X | |
| (a) Allied health care professional; | X | X | | | | X | X | |
| (b) Community physicians; | X | X | | | | X | X | |
| (c) Nurses; | X | X | | | | X | X | |
| (d) Prehospital personnel; | X | X | | | | X | X | |
| (e) Staff physicians. | X | X | | | | X | X | |
| (35) Provisions to allow for initial and maintenance training of invasive manipulative skills for prehospital personnel. | X | X | X | X | | X | X | X |
| (36) Residency programs: | X | | | | | X | | |
| (a) Accredited by the Accreditation Council of Graduate Medical Education; | | | | | | | | |

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| (b) With a commitment to training physicians in trauma management. | | | | | | | | |
| (37) A trauma research program with research applicable to the adult and pediatric trauma patient population. | X | | | | | X | | |
| (38) For joint trauma service designation (when two or more hospitals apply to share a single trauma designation):<br>(a) A single, joint multidisciplinary trauma quality improvement program in accordance with the trauma quality improvement standards defined in subsection (4) of this section;<br>(b) A set of common policies and procedures adhered to by all hospitals and providers in the joint trauma service; | X | X | X | | | X | X | X |
| (c) A predetermined, published hospital rotation schedule for trauma care. | | | | | | | | |