

TRAUMA RULES
FACT SHEET for PREHOSPITAL and HOSPITAL SYSTEMS
OAR 333-200 Exhibits 2, 3 and 4

BACKGROUND:

The Public Health Division is responsible for the development of a comprehensive statewide trauma system, which includes the development of state trauma objectives and standards, hospital designation and the criteria and procedures utilized in categorizing hospitals.

The Public Health Division made changes to Exhibit 4 of OAR 333-200, with recommendations from the State Trauma Advisory Board, in response to the 2006 Guidelines of the American College of Surgeons, Committee on Trauma – Resources for the Optimal Care of the Injured Patient. These guidelines seek to improve the care of injured patients and define the resources needed at designated hospitals to provide optimal care.

In addition, the most recent 2011 Guidelines for Field Triage of Injured Patients, published in the January 13, 2012 CDC, MMWR have been adopted by the Division and changes have been made to Exhibit 2 – Guidelines for Field Triage of Injured Patients. The 2011 guidelines seek to ensure that injured persons are transported to the most appropriate trauma center or hospital that is best equipped to manage the injured person based on specific injuries.

At the request of several institutions, Exhibit 3 – Hospital Trauma Team Response Criteria has been amended to more closely align with the elements of Exhibit 2.

A summary of changes to the exhibits are highlighted in the following documents.

Note: While revisions to Exhibits 2, 3 and 4 will be effective January 1, 2013, the Public Health Division acknowledges that it will take time for prehospital and hospital systems to develop appropriate policies and procedures and communicate these changes with staff. As such, the Division will require that standards be met beginning in July 2013 as trauma hospital surveys are conducted, allowing six months for prehospital and hospital systems to come into compliance.

Exhibit 2 – Guidelines for Field Triage of Injured Patients

Changes were based on 2011 Guidelines for Field triage of Injured Patients, Jan 2012 CDC, MMWR.

The formatting of the guidelines have changed and clearly indicate the decision process necessary in assessing physiology and anatomy of injury as well as mechanisms of injury and special patient considerations.

Assessing physiology

- GCS changed from ≤ 12 to ' ≤ 13 '; and
- Includes reference to '<20 breaths per minute for infants <1 year.'

Assessing anatomy of injury

- Penetrating injuries of groin changed to 'extremities proximal to elbow or knee;'
- Flail chest changed to 'chest wall instability or deformity (e.g. flail chest);'
- Spinal cord injury with limb paralysis changed to 'motor sensory deficit;'
- Added the following:
 - 'crushed, degloved, mangled or pulseless extremity;'
 - 'suspected pelvic fractures;'
 - 'open or depressed skull fractures.'

Assessing mechanism of injury and evidence of high-energy impact (the former box entitled 'high energy transfer situations' has been added to mechanisms of injury)

- Removed the following:
 - Heavy extrication time > 20 minutes as well as reference to the number of feet a pedestrian was thrown; and
 - Rollover.
- Added the following:
 - Specific details involving children and falls;
 - 'High risk auto crash' and specific details related to intrusion, ejection, death and vehicle telemetry; and
 - Specific reference to miles per hour for motorcycle or ATV crash.

Assessing special patient or system considerations (previously identified as 'co-morbid factors')

- Removed the following:
 - Reference to specific medical illnesses and presence of intoxicants.
- Added the following:
 - Specific details related to evaluating older adults and children;
 - Burns;
 - Number of weeks for pregnancy (>20); and
 - EMS provider judgment.

Exhibit 3 – Hospital Trauma Team Response Criteria

Changes were based on Exhibit 2 feedback. These changes align with Exhibit 2.

Full Trauma Team Response

- Breaths per minute for infants was added;
- Replaced reference to airway management to ‘need for ventilatory support;’
- Revised reference to penetrating injury of the neck, torso, or groin to ‘All penetrating injuries to head, neck, torso, and extremities proximal to elbow or knee;’
- Revised reference to flail chest to ‘chest wall instability or deformity;’
- Reference to long bone fractures was updated to ‘two or more proximal long-bone fractures;’ and
- Reference to spinal cord injury with limb paralysis was updated to ‘suspected spinal cord injury with motory sensory deficit.’

Modified Trauma Team Response

- GCS scale revised to 11-13;
- Isolated penetrating injury above base of skull changed to ‘open or depressed skull fracture;’
- Reference to amputation updated to ‘amputation proximal to wrist or ankle;’
- Updated reference to EMT suspecting life threatening injury related to high energy transfer situation or to presence of co-morbid factors to ‘EMS provider or receiving hospital judgment;’
- Added the following:
 - Details relevant to high risk auto crash and added ‘intrusion, including roof;’
 - Crushed, degloved, mangled or pulseless extremity;
 - Suspected pelvic fracture;
 - Falls and details relevant to adults and children;
 - Auto vs. pedestrian/bicyclist thrown, run over or with significant (>20 mph) impact;
 - Motorcycle or ATV crash > 20 mph; and
- Removed heavy extrication time.

Co-Morbid Factors

- All previous details were deleted with exception of pregnancy which now specifies >20 weeks.
- Added were:
 - Specific details related to evaluating older adults and children;
 - Specific details related to anticoagulants and bleeding disorders;
 - Burns; and
 - Time sensitive extremity injury.

Exhibit 4 –Trauma Hospital Resource Standards

Changes are based on the 2006 Guidelines of the American College of Surgeons, Committee on Trauma – Resources for the Optimal Care of the Injured Patient.

A number of changes were made to this exhibit primarily for clarification purposes. Changes included text changes and/or changes to essential and desire criteria. Given the number of changes made, the chart below will only show requirements that are new or have changed as “E” (essential) or “D” (desired). These are shaded in gray. Trauma staff should carefully review the entire exhibit for all of the changes made.

Effective Date: January 1, 2013	LEVELS			
	Regional (I) Comprehensive	Area (II) Regional	Local (III) Community	Community (IV) Rural
(1) HOSPITAL ORGANIZATION				
Hospital Organization and Medical Staff Support				
Written commitment of the institutional governing body and the medical staff to facilitate the allocation of resources and the development of programs designed to improve the care of injured patients. This commitment must be reaffirmed every 3 years and be current at the time of survey.	E	E	E	E
Administrative structure for trauma program includes a hospital administrator, trauma medical director, trauma coordinator/program manager and trauma registrar. Administrative support includes adequate funding and sufficient authority of the trauma program to achieve programmatic goals which include human resources, educational activities, and community outreach activities.	E	E	E	E
Trauma Service and Trauma Program				
Trauma admissions of 1200 annually, or 240 admissions with an ISS of >15, or an average of 35 patients with an ISS of >15 per surgeon.	E			
Trauma Resuscitation Team				
Trauma Team is organized and directed by a trauma surgeon who has privileges in general surgery, Advanced Trauma Life Support (ATLS) training, and is committed to the care of the injured. All adult and pediatric trauma patients who meet system triage criteria in accordance with OAR 333-200-0010(29) must be initially evaluated by the trauma team.	E	E	E	
Trauma Team is organized and directed by a physician practicing emergency medicine, who has completed ATLS training, and is committed to the care of the injured. All adult and pediatric trauma patients who meet system triage criteria must be initially evaluated by the trauma team.				E

Effective Date: January 1, 2013	LEVELS			
	Regional (I) Comprehensive	Area (II) Regional	Local (III) Community	Community (IV) Rural
Trauma Director				
Trauma Director is a board certified surgeon, responsible for coordinating the care of injured patients, verifies continuing medical education of personnel, and has oversight of the trauma quality improvement process. The Trauma Director is clinically involved with trauma patient management and responsible for credentialing of trauma team members.	E	E	E	
Trauma Director is a physician practicing emergency medicine, responsible for coordinating the care of injured patients, verifies continuing medical education of personnel, and has oversight of the trauma quality improvement process. The Trauma Director is clinically involved with trauma patient management and responsible for credentialing of trauma team members.				E
Current ATLS Instructor status.	E	D		
Trauma Director shall maintain current ATLS certification.		E	E	E
The Trauma Medical Director must accrue 16 hours annually or 48 hours in 3 years of verifiable, external trauma-related CME.	E	E	D	D
Member and active participation in Area Trauma Advisory Board (ATAB) or State Trauma Advisory Board (STAB).	E	E	E	D
The trauma medical director ensures and documents dissemination of information and findings from the peer review meetings to the noncore surgeons on the trauma call panel.	E	E	E	
Trauma Coordinator/Program Manager and Trauma Registrar				
Trauma Coordinator/Program Manager is a registered nurse involved in clinical activities, education, research, quality improvement, data collection, and is a liaison to the medical staff, prehospital community and the patient's family.	E	E	E	E
The Trauma Coordinator/Program Manager shall provide evidence of educational preparation and clinical experience in the care of injured patients; Minimum of 16 hours/year trauma related education.	E	E	E	D
The Trauma Coordinator/Program Manager shall provide evidence of educational preparation and clinical experience in the care of injured patients: Minimum 16 hours/four years trauma related education and has completed at least once the TNCC or TEAM course.				E
There will be a written job description defining authority and responsibilities including clinical activities, educational	E	E	E	E

Effective Date: January 1, 2013	LEVELS			
	Regional (I) Comprehensive	Area (II) Regional	Local (III) Community	Community (IV) Rural
responsibilities, performance improvement, administration, supervision of trauma registry, and community, state or national involvement in trauma care.				
Level I, II, and III facilities with trauma patients exceeding 250 patients must employ a minimum 1.0 FTE Trauma Coordinator.	E	E	E	
Level III facilities with trauma patients <i>less than 250</i> patients/year will employ a trauma coordinator at a minimum 0.5 FTE.			E	
Level IV facilities will employ a trauma coordinator at a minimum of 0.25 FTE.				E
Trauma Registrar - one or more staff trained in the submission of trauma registry data.	E	E	E	E
Trauma hospitals must employ adequate trauma registry trained staff to maintain compliance for trauma registry data submission. 1.0 FTE per 750-1,000 patients. Trauma hospitals with less than 750 patients shall identify a proportionate FTE.	E	E	E	E
Trauma Registrar should complete 4 hours/year of registry specific continuing education.	D	D	D	D
(2) HOSPITAL MEDICAL DEPARTMENTS AND PHYSICIAN RESOURCES				
Surgery	E	E	E	
Neurological Surgery with neurosurgical trauma liaison	E	E		
Orthopedic Surgery with orthopedic trauma liaison	E	E	E	D
Emergency Medicine with emergency medicine trauma liaison	E	E	E	D
Anesthesia with anesthesia trauma liaison	E	E	E	D
(3) CLINICAL CAPABILITIES				
General surgery/trauma surgeon on call is dedicated to the trauma center while on duty.	E	E	D	D
Published back-up schedule.	E	E	D	D
General surgery/trauma surgeon in house and present to direct the patient's resuscitation in the ED, with a back-up surgeon promptly available, with adequate notification from the field.	E	D	D	
Maximum acceptable response time is 15 minutes, tracked from patient arrival with compliance 80% of the time.	E	E	D	
Maximum acceptable response time is 30 minutes, tracked from			E	

Effective Date: January 1, 2013	LEVELS			
	Regional (I) Comprehensive	Area (II) Regional	Local (III) Community	Community (IV) Rural
patient arrival with compliance 80% of the time.				
Attending surgeon of each specialty present at operative procedures.	E	E	E	E
Anesthesia	E	E	E	D
Emergency Medicine	E	E	E	D
Emergency department physician practicing emergency medicine on-call and available to direct the patient's resuscitation.				E
On-call and promptly available (available to the patient within 30 minutes of physician notification)				
Neurologic surgery	E	E	D	
Orthopedic surgery	E	E	E	D
Cardiac surgery	E	D		
Reimplantation/nerve repair	E	D		
Obstetric/Gynecologic surgery	E	E	D	
Hand surgery	E	E	D	
Ophthalmic surgery	E	E	D	
Oral surgery – Dental	E	E	D	
Otorhinolaryngologic surgery	E	E	D	
Pediatric surgery	E	D		
Facial reconstructive surgery team	E	E	D	
Thoracic surgery	E	E	D	
Urologic surgery	E	E	D	
Vascular surgery	E	E	D	
Critical care medicine	E	E	D	
Pediatrics	E	E	D	D
Radiology	E	E	E	D
Neuroradiology	E	D	D	D
Interventional radiology	E	E	D	
(4) CLINICAL QUALIFICATIONS				
General Surgery				

Effective Date: January 1, 2013	LEVELS			
	Regional (I) Comprehensive	Area (II) Regional	Local (III) Community	Community (IV) Rural
Board certified [may be a surgeon who is a graduate of an Accreditation Council for Graduate Medical Education (ACGME) or an American Osteopathic Association (AOA) approved residency and who is less than five years out of training. If the surgeon fails to obtain board certification within five years, he or she is no longer eligible.] Meets alternate criteria for a non-board certified surgeon as identified in the “Resources for Optimal Care of the Injured Patient: Committee on Trauma, American College of Surgeons, 2006; Chapter 6 – Clinical Functions: General Surgery” incorporated by reference. Remains knowledgeable in trauma care principles. Participates in performance review activities.	E	E	E	D
Full, unrestricted general surgery privileges.	E	E	E	D
Successful ATLS course completion at least once.	E	E	E	E
ATLS re-verification every four years or 16 hours of trauma-related continuing medical education (CME) over a period of 4 years. Two of the hours must address acute pediatric trauma management.			E	E
General surgeons who take trauma call must accrue 16 hours of trauma related CME annually or 48 hours in 3 years or demonstrate participation in an internal educational process conducted by the trauma program based on the principles of practice-based learning and the performance improvement and patient safety program. Two of the hours must address acute pediatric trauma management.	E	E	D	D
The core surgeon group must attend at least 50% of the multidisciplinary peer review committee meetings.	E	E		
Core group of general surgeons taking trauma call is identified by the trauma medical director. The core surgeon group takes at least 60% of total trauma call hours each month.	E	E	E	
Emergency Medicine				
Board certified or board eligible full-time emergency medicine practitioner with special competence in care of the critically injured adult and pediatric patient. (May be a graduate of an ACGME or AOA approved residency and who is less than five years out of training. If the physician fails to obtain board certification within five years, he or she is no longer eligible.) Meets alternate criteria for a non-board certified emergency physician as identified in the “Resources for Optimal Care of the Injured Patient: Committee on Trauma, American College of Surgeons, 2006. Chapter 7 – Clinical Functions: Emergency Medicine” incorporated by reference.	E	D	D	D
Successful ATLS course completion at least once.	E	E	E	E

Effective Date: January 1, 2013	LEVELS			
	Regional (I) Comprehensive	Area (II) Regional	Local (III) Community	Community (IV) Rural
ATLS re-verification every four years or 16 hours of trauma-related CME over a period of 4 years. Two of the hours must address acute pediatric trauma management.			E	E
Completed Rural Trauma Team Development Course.			D	D
The ED trauma liaison must accrue 16 hours annually or 48 hours in 3 years of verifiable, external trauma-related CME.	E	E	D	D
ED physicians must accrue 16 hours of trauma related CME annually or 48 hours in 3 years or participate in an internal educational process conducted by the trauma program based on the principles of practice-based learning and the performance improvement program.	E	E	D	D
Attendance of an emergency medicine representative or liaison at 50% of multidisciplinary and peer review committee meetings.	E	E	E	E
In-house and immediately available to the patient upon arrival in the emergency department (ED).	E	E	E	D
Physicians are qualified and experienced in caring for patients with traumatic injuries and who can initiate resuscitative measures.		E	E	E
Neurologic Surgery				
Board certified or board eligible with neurosurgery privileges. On-call and promptly available to the patient.	E	E	D	
ATLS course completion at least once.	D	D	D	
Neurosurgical trauma liaison must accrue 16 hours annually or 48 hours in 3 years of verifiable, external trauma-related CME.	E	E	D	
Neurosurgeons who take trauma call must accrue 16 hours of trauma related CME annually or 48 hours in 3 years or participate in an internal educational process conducted by the trauma program based on the principles of practice-based learning and the performance improvement program.	E	E	D	
Attendance of a neurosurgery representative or liaison at 50% of multidisciplinary and peer review committee meetings.	E	E	D	
General surgeon who has been credentialed in the initial management of neurotrauma, as determined by the director of neurotrauma. In-house or promptly available to the patient.	E	E		
Back-up neurosurgeon promptly available to the patient. Neurosurgery resident post graduate year 5 (PGY-5) can fulfill the backup requirement.	E			

Effective Date: January 1, 2013	LEVELS			
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Orthopedic Surgery				
Board certified or board eligible with orthopedic surgery privileges. On-call and promptly available to the patient.	E	D	D	D
Full, unrestricted orthopedic surgery privileges. On-call and promptly available to the patient.	E	E	E	D
ATLS course completion at least once.	D	D	D	D
Orthopedic trauma liaison must accrue 16 hours annually or 48 hours in 3 years of verifiable, external trauma-related CME.	E	E	D	D
Orthopedic surgeons who take trauma call must accrue 16 hours of trauma related CME annually or 48 hours in 3 years or participate in an internal educational process conducted by the trauma program based on the principles of practice-based learning and the performance improvement program.	E	E	D	D
Attendance of an orthopedic surgery representative or liaison at 50% of multidisciplinary and peer review committee meetings.	E	E	D	D
Back-up orthopedic surgeon promptly available to the patient. PGY-4 can meet requirement.	E			
Anesthesia				
Board certified or board eligible with anesthesiology privileges.	E	E		
Anesthesiologist (full, unrestricted anesthesiology privileges) or nationally Certified Registered Nurse Anesthetist.			E	E
ATLS course completion at least once.	D	D	D	D
Attendance of an anesthesiology representative or liaison at 50% of multidisciplinary and peer review committee meetings.	E	E	D	D
In-house and immediately available to the patient upon arrival in the ED.	E	D		
Back-up anesthesiologist promptly available to the patient.	E	D		
Anesthesiologist or Certified Registered Nurse Anesthetist on-call and promptly available to the patient.		E	E	E
(5) HOSPITAL CLINICAL DEPARTMENTS AND CLINICAL RESOURCES				
Emergency Department (ED)				
Personnel				

Effective Date: January 1, 2013	LEVELS			
	Regional (I) Comprehensive	Area (II) Regional	Local (III) Community	Community (IV) Rural
ED staffing shall ensure immediate care of the trauma patient.	E	E	E	E
Registered Nurse who provides continual monitoring of the trauma patient from hospital arrival, throughout resuscitative phase, until disposition from the ED.	E	E	E	E
Oregon Health Authority initial 16 hour approved trauma life support course for nurses, followed by either recertification of an approved trauma life support course or 16 hours of trauma related continuing education units (CEUs) over a period of four years.	E	E	E	E
Non-ED nursing staff and nursing supervisors assisting during trauma resuscitations shall attend an Oregon Health Authority approved trauma life support course for nurses.	D	D	D	D
At least two registered nurses (RNs) in the ED and immediately available to the patient upon arrival.	E	E	E	
Equipment				
Airway control and ventilation equipment including laryngoscope and endotracheal tubes appropriate for resuscitation of patients of all ages, bag-mask resuscitator, sources of oxygen, pulse oximeter, CO ₂ monitoring and mechanical ventilator.	E	E	E	E
Suction devices.	E	E	E	E
Electrocardiograph-defibrillator with infant and pediatric paddles or patches.	E	E	E	E
Equipment to establish central line access.	E	E	E	E
All standard intravenous fluids and administration devices, including large bore intravenous catheters and intraosseous needles.	E	E	E	E
Equipment for rapid volume infusion.	E	E	E	D
Thermal warmers for fluids and blood.	E	E	E	E
Sterile surgical sets for standard emergency procedures.	E	E	E	E
Gastric decompression equipment.	E	E	E	E
Drugs and supplies necessary for emergency care of patients.	E	E	E	E
Two-way radio communications with prehospital care providers.	E	E	E	E

Effective Date: January 1, 2013	LEVELS			
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Cervical immobilization device appropriate for all ages for cervical injuries.	E	E	E	E
Pediatric color coded equipment and medications based on age and size.	E	E	E	E
Radiology Capability in ED				
X-ray capability 24 hours/day.	E	E	E	D
In house technician.	E	E	D	D
Technician on-call and promptly available to the patient upon arrival to the ED.			E	E
ED ultrasound capability with appropriate physician credentialing.	D	D	D	D
Operating Room (OR)				
Personnel				
An operating room (OR) with in-house staff immediately available to the patient 24 hours/day. The primary function of the staff must be to the operating room.	E	D		
An OR must be promptly available and adequately staffed 24 hours/day.		E	E	E
There shall be an organized trauma competency training program for OR staff involved in trauma surgical care.	D	D	D	D
Equipment				
Cardiopulmonary by-pass capability.	E	D		
Operating microscope.	E	D	D	
Thermal control equipment for ambient air and for blood and fluids.	E	E	E	
X-ray capability including c-arm image intensifier.	E	E	E	E
Endoscopes, bronchoscope.	E	E	E	D
Craniotomy instruments if neurosurgical capabilities or services are available and neurosurgical trauma patients are being managed.	E	E	E	E
Monitoring equipment.	E	E	E	E
	E	E	E	D

Effective Date: January 1, 2013	LEVELS			
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Rapid volume infuser system.				
Postanesthetic Recovery Room (surgical intensive care unit is acceptable)				
Personnel				
RNs available 24 hours/day if surgical services are provided.	E	E	E	D
Equipment				
Appropriate monitoring and resuscitation equipment for adult and pediatric patients.	E	E	E	D
Intracranial pressure monitoring equipment if neurosurgical capabilities or services are available and neurosurgical trauma patients are being managed.	E	E	E	
Pulse oximetry.	E	E	E	E
Thermal control.	E	E	E	E
Intensive or Critical Care Unit for Injured Patients				
Personnel				
Designated medical director.	E	E	E	
Intensive care unit (ICU) medical director is a surgeon who is board certified in critical care or has equivalent training.	E	D		
ICU surgical co-director is responsible for setting policies and administration related to trauma ICU patients.		E	E	
If trauma patients are acutely managed in the ICU, must have surgical input into policies related to trauma ICU.				E
Surgical ICU service physician on-call or in-house 24 hours/day.	E	E	D	
Intensivist must be on-call or in-house 24 hours a day to cover the trauma ICU patients.		E	E	E
Registered nurse trauma education:				
ICU RNs acutely managing ICU trauma patients must attend an initial TEAM, TNCC, or other Oregon Health Authority approved trauma critical care course.	E	E	E	D
Reverification of TEAM, TNCC or other Oregon Health approved trauma critical care course every 4	E	E	E	D

Effective Date: January 1, 2013	LEVELS			
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years or 16 hours of trauma related CEUs over a period of 4 years.				
ICU nursing staff who participate in trauma resuscitation in the ED must attend an initial TEAM, TNCC, or other Oregon Health Authority approved trauma critical care course.	E	E	E	D
Reverification of TEAM, TNCC or other Oregon Health approved trauma critical care course every 4 years or 16 hours of trauma related CEUs over a period of 4 years.	E	E	E	D
Equipment				
Equipment for monitoring and resuscitation.	E	E	E	
Intracranial pressure monitoring equipment if neurosurgical capabilities or services are available and neurosurgical trauma patients are being managed.	E	E	E	
Pulmonary artery monitoring equipment.	E	E	E	
Respiratory Therapy Services				
Available in-house 24 hours/day.	E	E	D	D
On-call and promptly available 24 hours/day.			E	D
Radiological Capabilities in ICU				
Diagnostic angiography of all types	E	E	D	
Magnetic resonance imaging	E	E	D	
Interventional radiology	E	E	D	
Sonography	E	E	E	D
Computed tomography	E	E	E	E
Technician in-house	E	D	D	D
Technician on-call and promptly available		E	E	E
Teleradiology	E	E	E	E
Facilities utilizing teleradiology must have a policy that outlines use, turn-around times, and quality improvement activities related to over-reads and turn-around time.	E	E	E	E

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Clinical Laboratory services available 24 hours/day				
Standard analyses of blood, urine and other body fluids, including micro sampling.	E	E	E	E
Blood typing and cross-matching	E	E	E	E
Coagulation studies, PT, PTT, Fibrinogen	E	E	E	E
Comprehensive blood bank or a written process for rapid access to additional blood supplies from a community central blood bank and Red Cross approved hospital storage facilities.	E	E	E	E
Blood gases and pH determinations	E	E	E	E
Microbiology	E	E	E	E
Acute Hemodialysis				
In-house	E	D		
Acute Management of Burns				
Facility has treatment protocols for caring for burn patients in-house or transfer agreement with an American Burn Association (ABA) burn center.	E	E	E	E
Spinal Cord/ Head Injury Acute Management				
In circumstances where a designated brain injury or spinal cord injury center exists in the region, early transfer should be considered; transfer agreements should be in effect.	E	E	E	E
(6) REHABILITATION SERVICES				
Physical therapy	E	E	E	D
Occupational therapy	E	E	E	D
Speech therapy	E	E	D	D
Nutritional therapy	E	E	E	D
Social services	E	E	E	D
(7) QUALITY IMPROVEMENT/PERFORMANCE IMPROVEMENT AND PATIENT SAFETY				

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Organized Performance Improvement (PI) program for trauma system patients. There should be evidence of processes to demonstrate corrective action which affects patient care. Facility has a written plan which includes a core set of institutional quality indicators or benchmarks including state or ATAB indicator benchmarks. The process must demonstrate problem resolution and loop closure.	E	E	E	E
Performance improvement processes to ensure that the general surgeon (level I, II, or III) or the physician practicing emergency medicine (level IV) on-call for trauma will be notified in a timely manner of an impending trauma patient arrival and that the surgeon or the physician practicing emergency medicine will be present to direct the trauma team through the vital phases of resuscitation.	E	E	E	E
Surgeon's presence in the ED is monitored.	E	E	E	E
Criteria for a graded activation are continuously evaluated in the PI program.	E	E	E	
Response of the ED physicians to address in-house emergencies are reviewed to ensure that this practice does not adversely affect the care of patient in the ED.		E	E	E
Diversion protocol and tracking, including the communication process for notifying prehospital providers of change in trauma care capabilities. Trauma diversion rate will be less than 5%. Diversion rates >5% will need to be addressed in the PI program.	E	E	E	E
The trauma PI program demonstrates a systematic review of all trauma system entry admissions to non-surgical services without trauma consultation.	E	E	E	
There is 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 practitioner(s). Evaluation and feedback of process and outcomes for all phases of care from scene of injury to discharge from rehabilitation.	E	E	E	
The trauma service and trauma coordinator(s) will have dedicated time to perform rounds, provide oversight for coordination, consistency and monitoring of the quality of care.	E	D	D	D
There must be a Trauma Peer Review Committee, a periodic multidisciplinary peer review committee, with participation by the trauma medical director or designee and representatives from general surgery, orthopedic surgery, neurosurgery, emergency medicine, and anesthesia. This committee reviews selected deaths, complications and sentinel events with objectives of identification of issues and appropriate action plans.	E	E	E	E

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There must be a Trauma Program Operational Process Performance Committee (a multidisciplinary hospital and medical staff member committee) addressing, assessing, and correcting global trauma program and system issues. The committee handles process, including all program-related services, working to correct overall program deficiencies to continue to optimize patient care. It evaluates and provides feedback of process and outcomes for all phases of care from scene of injury to discharge from rehabilitation.	E	E	E	E
Participation in the review of prehospital and regional systems of trauma care as indicated by the ATAB Quality Improvement Plan.	E	E	E	E
Trauma Registry	E	E	E	E
PI Program must be able to demonstrate that the trauma registry supports the PI process.	E	E	E	E
Accurate trauma data reporting to Oregon Trauma Registry within 90 days of discharge.	E	E	E	E
(8) CONTINUING EDUCATION/OUTREACH PROGRAM				
General surgery residency program.	E			
ATLS course provider/ participant.	E	D	D	D
Rural Trauma Team Development Course Provider.	E	D	D	D
Rural Trauma Team Development Courses available in region.		D	D	D
Continuing education programs provided by the hospital for:				
Staff physicians	E	E	E	D
Nurses	E	E	E	D
Allied health personnel	E	E	E	D
Community physicians	E	E	E	D
Prehospital personnel	E	E	E	D
Telephone and on-site consultation with physicians of the community and outlying areas	E	E	D	D
(9) PUBLIC EDUCATION/PREVENTION				
Injury control studies: The trauma center demonstrates the	E	D		

Effective Date: January 1, 2013	LEVELS			
	Regional (I) Comprehensive	Area (II) Regional	Local (III) Community	Community (IV) Rural
presence of prevention activities that center on priorities based on local data.				
Collaboration with other institutions.	E	E	D	D
Monitor progress and effect of prevention programs.	E	E	D	D
There is an Injury Prevention Coordinator (IPC), a position involved in injury prevention activities, education, research and quality improvement. Activities must center on priorities derived from local trauma data. The work performed by the IPC must be hours in addition to those provided for trauma coordinator and trauma registry positions. This position may include alcohol intervention initiatives.	E	E	D	
The hospital must have a mechanism to identify patients who are problem drinkers and include a plan for intervention and referral.	E	E	E	D
Outreach activities	E	E	D	D
Information resources for the public.	E	E	D	
Collaboration with existing national, regional, and state programs.	E	E	D	
Coordination or participation in community prevention activities.	E	E	E	D
(10) TRAUMA RESEARCH PROGRAM				
Trauma registry quality improvement activities.	E	E	E	
Research committee	E	D		
Identifiable IRB process.	E	D		
At least four extramural educational presentations per year.	E	D	D	
Minimum of 20 peer reviewed articles published in journals included in Index Medicus in a 3 year period. These publications must result from work related to the trauma center. Of the 20 articles, at least 1 must be authored by members of the general surgery team, and least 1 each from 3 of 6 disciplines is required: neurosurgery, emergency medicine, orthopedics, radiology, anesthesia, and rehabilitation; or 10 peer reviewed articles published in journal included in Index Medicus resulting from work in the trauma center, with at least one authored or coauthored by members of the general surgery trauma team and at least one each from 3 of 6 disciplines	E	D		

Effective Date: January 1, 2013	LEVELS			
	Regional (I) Comprehensive	Area (II) Regional	Local (III) Community	Community (IV) Rural
(neurosurgery, emergency medicine, orthopedics, radiology, anesthesia, and rehabilitation) AND 4 of 7 scholarly activities as stated in the 2006, American College of Surgeons, Committee on Trauma – Resources for Optimal Care of the Injured Patient, pages 121-122, incorporated by reference.				