North Dakota Trauma Designation Essential Criteria, Level IV and V	E = Essential D = Desired	Evidence of Compliance/ Comments
Trauma System (33-38-01-02)		
Trauma system	**E**	
Trauma team identified (33-38-01-13) • Team members should be identified in the trauma activation policy	**E**	Consider *all* members of your trauma team.
Hospital Organization		
Emergency Department	**E**	
Ambulance garage	**D**	
Helicopter landing site	**D**	
Surgical Department	**D**	Level IV facilities, consider ability to perform damage control surgery.
EMS communication • Radio location in the hospital • Availability of EMS reports • Feedback provided to EMS agencies	**E**	
Hospital Personnel		
Designated Trauma Medical Director (ACS 2.8 & 2.9)	**E**	
• TMD must hold current ATLS certification	**E**	
• TMD must participate in hospital's trauma performance improvement meetings	**E**	
• TMD, or designated facility provider, must be present at 75% of the regional trauma meetings	**E**	
Trauma Coordinator (ACS 2.10)	**E**	Trauma Coordinator is responsible for processes and PI activities for nursing and ancillary staff. The Trauma Coordinator partners with the TMD in the development of trauma policies, PI, and program oversight.
• Must be current in TNCC	**E**	
• Recommend, completion of the Rural Trauma Outcomes and Performance Improvement Course	**D**	
• Recommend, completion of trauma program manager's course	**D**	
Trauma Registrar (ACS 4.30 & 4.32 & 4.33))	**E**	Depending on patient volume, trauma coordinator may serve both roles. ACS recommends 0.5 FTE for every 200-300 injured patients annually.
• Recommend, completion of AAAM's Abbreviated Injury Scale (AIS-15) Course	**D**	
• Recommend, completion of a trauma registrar course	**D**	
• Recommend, completion of an ICD-10 course	**D**	

Performance Improvement personnel (ACS 3.34)	**E**	Trauma coordinator or registrar may serve this role.
Trauma Team Lead (33-38-01-13 & 33-38-01-14)	**E**	
• Must be on-call and on-site within 20 minutes, 24/7 ○ On call schedule must be posted and readily available to facility staff	**E**	
• **Level IV**: Must be a physician who is current in Advanced Trauma Life Support • **Level V**: May be a physician who is current in Advanced Trauma Life Support OR • A physician assistant, whose supervising physician has delegated to the physician assistant the authority to provide care to trauma patients and is current in Advanced Trauma Life Support OR • A nurse practitioner whose scope of practice entails the care of trauma patients, who has successfully completed and is current in Advanced Trauma Life Support, and whose scope of practice is approved by the state board of nursing	**E**	
Anesthesia Services (ACS 4.13)	**D**	May be a physician or CRNA.
Radiologist Access (ACS 4.14)	**E**	Radiology may be a contracted service. Radiology read time expectation listed within the trauma policy. Not necessary to monitor ALL trauma patient turnaround times.
• A radiologist must be available for interpretation of images, ideally, within 30 minutes of request.	**E**	
• The time from images sent to radiologist read should be monitored through the PI program.	**E**	
Pediatric Emergency Care Coordinator (PECC) • The facility must have both a nurse and provider (MD/DO or APP) PECC	**E**	The PECC must be on file with the ND State EMSC program.
Tele-health	**D**	
• Tele-health must be included/described in the facility trauma policy	E, if tele-health utilized	
• Tele-health included in the PI process and PI meeting	D	
Laboratory Services		
• Must be available 24 hours per day	**E**	
• Must include standard analysis of blood, urine, and other body fluids	**E**	
• Coagulation studies, drug and alcohol screening, and blood gases desired	**D**	
• Blood typing	**D**	

• Access to blood products and comprehensive blood bank desired	**D**	
Diagnostic Imaging (ACS 3.5)		
• X-ray available, 24 hours per day	**E**	Must be able to monitor the pt while in CT, suction must be available, consider location to nearest crash cart. Preferred: push images through PACS Acceptable: send a disk.
• Computed tomography (CT)	**D**	
• Point-of-care ultrasound for FAST exam	**D**	
• Plan to transfer images to regional Level I or II (ACS 3.6)	**E**	
Pharmacy Services		
Pharmacist or Pharmacy Tech	**D**	If pharmacy in house, desirable to have them respond for drug dosing, not required to have them take call. Annual TXA education desired. RSI medication must be easily accessible; recommend having RSI kits with quick reference drug dosing.
Must have Tranexamic Acid (TXA) on hand and easily accessible	**E**	
Kcentra desired	**D**	
Drugs necessary for emergency care and rapid sequence intubation (RSI)	**E**	
Equipment for Resuscitation of Patients of All Ages		
• **Must have:** ○ Spinal immobilization (c-collar and backboard) ○ Airway control and ventilation equipment, including NPA/OPA, oxygen delivery devices, bag-valve-mask, laryngoscopes, & endotracheal tubes ○ Video Laryngoscope ○ Rescue airway device (i.e., I-Gel, King Airway, LMAs) ○ Surgical set for airway control and cricothyrotomy ○ Pulse oximetry ○ End tidal CO_2 monitoring (colorimetric and capnography) ○ Suction devices (must be available in CT) ○ Chest decompression needle (minimum 14-gauge X 3in) ○ Surgical set/insertion tray for thoracostomy ○ Selection of chest tube sizes (10F to 32F) and a closed, water seal drainage system ○ Monitor-defibrillator (must be able to go with the patient to CT) ○ Tourniquets ○ Pelvic immobilization device (commercial device or sheet with clamps) ○ Hemostatic dressings (QuickClot or similar) ○ Large-bore intravenous catheters (18-gauge to 14-gauge)	**E**	Equipment must include sizing to care for neonate through adult.

○ Intraosseous device ○ Standard intravenous fluids and administration tubing ○ If blood products available, non-pump specific (gravity) blood tubing ○ Gastric decompression ○ Urinary catheter with collection device ○ Pediatric length-based drug dosage and equipment system ○ Thermal control equipment for patients ○ Thermal control equipment for blood/fluids		
Transfer Agreements		
Transfer agreement with regional trauma center (33-38-01-13 & 33-38-01-14)	**E**	
Transfer agreement with the following specialties • Burn care • Pediatric care	**E**	
Trauma Policy / Protocol / Guidelines / Care Expectations		
Trauma Code Activation Protocol (33-38-01-03)	**E**	Recommend collaborating with EMS to ensure using the same activation criteria.
• At a minimum, activation protocols must include the trauma code activation guidelines provided by the state	**E**	
Trauma Team Response/Activation Plan (33-38-01-13 & 33-38-01-14)	**E**	
• May be included in the Trauma Code Activation Protocol	**D**	
• Must include goal for team member arrival times	**E**	
• Posted on call schedule for trauma team leader	**E**	
• Trauma team leader must be at bedside within 20 minutes 24/7	**E**	
• Phone contact with higher level trauma center easily accessible	**E**	
Clinical Practice Guidelines (ACS 5.1)	**E**	Education and evidence supporting utilization of NEXUS criteria, PECARN, or state provided protocols/algorithms.
• Must have clinical practice guidelines, protocols, or algorithms	**E**	
• Utilize trauma order sets within the EMR	**D**	
Trauma Surge and Mass Casualty Plan (ACS 2.3)	**E**	
• Written protocol ○ Must include pediatric specific considerations (EMSC Metric)	**E**	
• Collaboration with local EMS, fire, dispatch, etc. to organize an annual disaster drill	**E**	
• Annual decontamination training for staff	**D**	

Assessment of Children for Nonaccidental Trauma (ACS 5.7)	**E**	Education on and utilization of TEN-4-FACESp. Annual education on NAT.
• Process in place to assess children for NAT	**E**	
• NAT protocols/policies	**D**	
Anticoagulation Reversal Protocol or Policy (ACS 5.9)	**E/D**	If the facility has anticoagulant reversal agents, this is an essential item
• Protocol in place for reversal of anticoagulants ○ Example: Vitamin K, KCentra		
Tranexamic Acid Policy	**E**	Recommend using the TXA policy provided by the State.
• Must include dosing for adults, adolescents, and pediatrics	**E**	
Pediatric Readiness (ACS 5.10)	**E**	The Pediatric Readiness Assessment is conducted by the EMSC Innovation and Improvement Center. The Assessment can be found here: Assessment • EIIC (emscimprovement.center) Goal score of 88 or higher. The Pediatric Readiness Assessment must be available for review.
• The emergency department must evaluate its readiness to care for a pediatric patient ○ The facility must complete the Pediatric Readiness Assessment through the National Pediatric Readiness Project during its review year • A plan must be in place to address any deficiencies	**E**	
Local Emergency Medical Services Transport Plans (33-38-01-04)	**E**	
Trauma Performance Improvement Plan (33-38-01-02)	**E**	May come in the form of a facility policy or may be a simple written plan. Should outline the process in detail.
• Must have a written plan for evaluating care of the injured patient	**E**	
Performance Improvement Process & Patient Safety (33-38-01-13 & 33-38-01-14)		
Trauma registry submission to the state trauma system (33-38-01-08) (ACS 6.2)	**E**	Submission must be completed within defined submission schedule per North Dakota Data Dictionary.
• Must include all trauma activations	**E**	
• Must include ICD-10 injuries as outlined in the North Dakota Data Dictionary	**E**	
Performance Improvement Process (23-01.2-01) • Must include a focused audit of selected criteria and patient care of trauma cases • Must include a review of pre-hospital care with feedback provided to EMS agencies	**E**	

• Must include primary, secondary, tertiary, quaternary reviews as appropriate
  ○ ATLS physician review for all secondary, tertiary, and quaternary reviews
  ▪ *A physician cannot perform a review of their own patient care*
• Must show loop closure
• Must include review of all deaths
  ○ Deaths must be graded using current ACS terminology		

Level V: ATLS physician chart review of ***ALL*** trauma codes managed by a nurse practitioner or physician assistant within 14 days	**E**	
Multidisciplinary committee to review trauma patients (ACS 2.7) • Include members from the following disciplines: medical staff, nursing, pharmacy, respiratory therapy, lab, radiology ○ Trauma Medical Director must be present (in person or virtually) for all meetings where trauma patient care is discussed • Meeting agendas should be available prior to the meeting • Must meet *at least* quarterly, ideally monthly • Must keep meeting minutes	**E**	
Trauma Medical Director or designated ATLS provider present at 50% of the Regional Performance Improvement Meetings	**E**	
Participation in trauma research projects	**D**	
Prevention/Public Education		
State and Regional involvement (ACS 2.1)	**E**	
• Participate in state and regional trauma meetings	**E**	
• Collaborate with EMS and/or other agencies for public education and outreach	**E**	
• Trauma coordinator and registrar attend Annual Pre-Conference Workshop	**D**	
• Providers attend Trauma Conference Skills Lab	**D**	
• Staff attends Annual ND Statewide Trauma Conference	**D**	
Injury Prevention Program (ACS 2.12) • Evidence of collaborative work with community organizations in injury prevention efforts • Implements at least one activity that addresses causes of injury in the community	**E**	Example: fall prevention, Stop the Bleed© program, bicycle safety/helmet program, motor vehicle occupant safety, community health fairs, and/or social media posts

Staff Education		
Trauma team lead must have successfully completed and be current in ATLS • Level IV, must be a physician (33-38-01-13) • Level V, may be a physician, nurse practitioner, or physician assistant (33-38-01-14)	**E**	
75% of ED nursing personnel who provide care for the initial resuscitation phase, must be current in TNCC or ATCN certification within six months of hire	**E**	
Other emergency care continuing education for providers and nurses	**D**	For example: ACLS, PALS, NRP, CALS
Annual education provided to nursing staff • Education must include hands on learning • Education may include PowerPoint presentations, games, group activities, online modules, quizzes, infographics, etc.	**E**	Topics may include setting up for intubation, emergency drug dosing, TXA dosing, setting up and caring for a chest tube, needle decompression, inserting an I/O, non-accidental trauma, use of length-based resuscitation tape and drug dosing practice, c-collar use, activation criteria/scenarios etc.
Annual critical skills verification • Verification of selected critical skills as identified by the State Trauma System o To include, at a minimum: adult & pediatric intubation and chest tube insertion o May also include: I/O insertion, cricothyroidotomy, needle decompression, central line insertion, and other procedures per facility discretion o Consider the need to verify locum providers o Verification of skills must be recorded and available for review for the entire time period since your last review	**E**	Verification may be done by successful performance of skill on a patient or in a simulated environment. Acceptable simulation environments include: ATLS, CALS, Trauma Conference Skills Session, ND SIM, ATLS physician sign off, or other approved by the ND State Trauma System. The ND State Trauma System has manikins available for use including neonatal, pediatric, and adult airway; difficult adult airway; surgical airway; needle decompression; and chest tube placement.