



**BOARD OF CERTIFICATION  
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**Trauma Certified Registered Nurse (TCRN) Examination Content Outline**

Total items

<b>1. Clinical Practice: Head and Neck</b>	<b>33</b>
<b>A. Neurologic trauma</b>	
1. Traumatic brain injuries	
2. Spinal cord injuries	
<b>B. Maxillofacial and neck trauma</b>	
1. Facial fractures	
2. Ocular trauma	
3. Neck trauma	
<b>2. Clinical Practice: Trunk</b>	<b>37</b>
<b>A. Thoracic trauma</b>	
1. Chest wall injuries	
2. Pulmonary injuries	
3. Cardiac injuries	
4. Great vessel injuries	
<b>B. Abdominal trauma</b>	
1. Hollow organ injuries	
2. Solid organ injuries	
3. Diaphragmatic injuries	
4. Retroperitoneal injuries	
<b>C. Genitourinary trauma</b>	
<b>D. Obstetrical trauma</b>	
1. Imminent or emergent delivery	
2. Complications of trauma in pregnancy	
<b>3. Clinical Practice: Extremity and Wound</b>	<b>25</b>
<b>A. Musculoskeletal trauma</b>	
1. Vertebral injuries	
2. Pelvic injuries	
3. Compartment syndrome	
4. Amputations	
5. Extremity fractures	
6. Soft-tissue injuries	
<b>B. Surface and burn trauma</b>	
1. Chemical burns (any body part, including the eye)	
2. Electrical burns	
3. Thermal burns	
4. Inhalation injuries	

<b>4. Clinical Practice: Special Considerations</b>	<b>25</b>
<b>A. Psychosocial issues related to trauma (e.g., post-traumatic stress, acute stress disorder, coping)</b>	
<b>B. Shock</b>	
1. Hypovolemic	
2. Obstructive (e.g., tamponade, tension pneumothorax)	
3. Distributive (e.g., neurogenic, septic)	
4. Cardiogenic	
<b>C. Systemic Inflammatory Response Syndrome (SIRS)</b>	
1. Multiple organ dysfunction syndrome (MODS)	
2. Sepsis	
3. Acute Respiratory Distress Syndrome (ARDS)	
a. Prevention and recognition	
b. Ventilation strategies	
<b>D. Victims of domestic abuse/child abuse/elder abuse and neglect</b>	
<b>E. Bariatric</b>	
<b>F. Substance use</b>	
<b>G. Victims of violence</b>	
1. Evidence collection and preservation	
2. Chain of custody	
<b>H. Patients with self-inflicted injuries</b>	
<b>I. Comorbidities</b>	
<b>J. Hemostatic resuscitation</b>	
1. Blood administration/massive transfusion	
2. Coagulant therapy	
3. Damage control	
4. Trauma triad	
<b>K. Complications (e.g., DVT/VTE, VAP, CAUTI, TRALI)</b>	
<b>L. Special needs (e.g., developmentally and intellectually disabled)</b>	
<b>M. Pediatrics</b>	
<b>N. Geriatrics</b>	
<b>5. Continuum of Care for Trauma</b>	<b>15</b>
<b>A. Injury prevention</b>	
<b>B. Pre-hospital care</b>	
<b>C. Resuscitation</b>	
<b>D. Patient transfer</b>	
1. Intrafacility (within a facility, across departments)	
2. Interfacility (from one facility to another)	
<b>E. Acute Care</b>	
1. Reassessment	
2. Consequences of resuscitation	
3. Tertiary exam	
4. Nutritional support	
<b>F. Rehabilitation (OT, PT, Speech)</b>	
<b>G. Discharge planning</b>	
1. Patient/Family education	
2. Complications or barriers	

3. Home readiness (e.g., safety concerns, transition of care)	
<b>H. End-of-life issues</b>	
1. Organ/tissue donation	
2. Advanced directives	
3. Family presence	
4. Palliative care	
5. Brain death	
<b>6. Professional Issues</b>	<b>15</b>
<b>A. Trauma quality improvement</b>	
1. Performance improvement	
a. Over and under triage	
b. Missed injuries/delay in diagnosis	
c. Mortality/morbidity reviews	
2. Trauma registry (e.g., data collection)	
3. Outcomes follow-up and feedback (e.g., referring facilities, EMS)	
4. Evidence-based practice (e.g., best practice guidelines)	
<b>B. Research</b>	
<b>C. Documentation (e.g., clinical documentation)</b>	
<b>D. Patient safety</b>	
1. Patient handoff (e.g., SBAR)	
2. Event reporting	
<b>E. Disaster management</b>	
1. Triage (MCI, Disaster Planning/Emergency Preparedness)	
2. Decontamination	
<b>F. Trauma team well-being</b>	
1. Peer support	
2. Psychological first-aid	
3. Work-life balance	
4. Staff safety (e.g., workplace violence)	
<b>G. Regulations and standards</b>	
1. HIPAA/privacy	
2. EMTALA	
3. Designation/verification (e.g., trauma center/trauma systems)	
<b>H. Education and outreach for interprofessional trauma teams, and the public</b>	
1. Stop the bleed	
2. Car seat safety	
<b>I. Ethical issues</b>	
<b>J. Advocacy</b>	
<b>K. Team dynamics</b>	
1. Communication (e.g., handoff, closed loop)	
2. Defined roles	
<b>Overall Total</b>	<b>150</b>

## Testable Tasks

### 1. Assessment

- A. Establish mechanism of injury
- B. Assess, intervene and stabilize patients with immediate life-threatening conditions
- C. Assess pain
- D. Assess for adverse drug and blood reactions
- E. Obtain complete patient history
- F. Obtain a complete physical evaluation
- G. Use Glasgow Coma Scale to evaluate patient status
- H. Assist with Focused Abdominal Sonography for Trauma (FAST) examination
- I. Calculate burn surface area
- J. Hemodynamic monitoring
- K. Assessment not otherwise specified

### 2. Analysis

- A. Provide appropriate response to diagnostic test results (laboratory and/or radiological)
- B. Prepare equipment that might be needed by the team
- C. Identify the need for diagnostic tests
- D. Determine the plan of care
- E. Identify desired patient outcomes
- F. Determine the need to transfer to a higher level of care
- G. Determine the need for emotional or psychosocial support
- H. Hemodynamic monitoring
- I. Analysis not otherwise specified

### 3. Implementation

- A. Incorporate age-specific needs for patient population served
- B. Respond with decisiveness and clarity to unexpected events
- C. Demonstrate knowledge of pharmacology
- D. Assist with or perform the following procedures:
  - 1. Airway management
  - 2. Surgical airway
  - 3. End-tidal CO<sub>2</sub>
  - 4. Needle decompression
  - 5. Chest tube
  - 6. Hemodynamic monitoring devices (e.g., arterial line, SCV02)
  - 7. Central line insertion
  - 8. Intraosseous needles
  - 9. Volume resuscitation and bleeding control
    - a. Burn fluid resuscitation
    - b. Hypertonic solution
    - c. Permissive hypotension
    - d. Massive transfusion protocol (MTP)
    - e. Autotransfusion
    - f. Blood and blood products
    - g. Tranexamic acid (TXA)
    - h. Factor replacement
  - 10. Tourniquets
  - 11. Pelvic stabilizer
  - 12. Pericardiocentesis

13. Bedside open thoracotomy
  14. Resuscitative endovascular balloon occlusion of the aorta (REBOA)
  15. Compartment syndrome monitoring devices
    - a. Abdominal
    - b. Extremity
  16. Temperature control devices (e.g., warming and cooling)
  17. Immobilization devices
  18. ICP monitoring devices
  19. Continuous Renal Replacement Therapy (CRRT)
- E. Manage patients who have had the following procedures:
1. Advanced airway
  2. Surgical airway
  3. End-tidal CO<sub>2</sub>
  4. Needle decompression
  5. Chest tube
  6. Hemodynamic monitoring devices (e.g., arterial line, SCV02)
  7. Central line insertion
  8. Intraosseous needles
  9. Volume resuscitation and bleeding control
    - a. Burn fluid resuscitation
    - b. Hypertonic solution
    - c. Permissive hypotension
    - d. Massive transfusion protocol (MTP)
    - e. Autotransfusion
    - f. Blood and blood products
    - g. Tranexamic acid (TXA)
    - h. Factor replacement
  10. Tourniquets
  11. Pelvic stabilizer
  12. Pericardiocentesis
  13. Bedside open thoracotomy
  14. Resuscitative endovascular balloon occlusion of the aorta (REBOA)
  15. Compartment syndrome monitoring devices
    - a. Abdominal
    - b. Extremity
  16. Temperature control devices (e.g., warming and cooling)
  17. Immobilization devices
  18. ICP monitoring devices
  19. Continuous Renal Replacement Therapy (CRRT, CVVH, SLED, intermittent HD)
- F. Manage patients' pain and sedation by providing
1. pharmacologic interventions
  2. non-pharmacologic interventions
- G. Provide complex wound management
1. Ostomies
  2. Drains
  3. Wound VAC
  4. Open abdomen
  5. Amputations
- H. Implementation not otherwise specified

#### **4. Evaluation**

- A. Evaluate patients' response to interventions
- B. Monitor patient status and report findings to the team
- C. Adapt the plan of care as indicated
- D. Evaluation not otherwise specified

#### **5. Continuum of Care**

- A. Ensure proper level of care for injured patients
- B. Restore patient to optimal health
- C. Coordinate the multidisciplinary plan of care
- D. Involve patient and family in care, teaching, and discharge planning
- E. Recognize need for social/protective service consults
- F. Participate in multi-disciplinary rounds
- G. Provide trauma patients and their families with psychosocial support
- H. Provide information to patient and family regarding community resources
- I. Continuum of Care not otherwise specified

#### **6. Professional Issues**

- A. Monitor, implement, and evaluate for opportunities for improvement related to:
  - 1. patient outcomes
  - 2. trauma programs
  - 3. trauma systems
- B. Maintain the performance improvement programs
- C. Collect, analyze, and use data for the purpose of:
  - 1. improving patient outcomes
  - 2. benchmarking
  - 3. decreasing incidence of trauma
- D. Research
- E. Adhere to regulatory requirements related to trauma center verification/designation
- F. Participate in and promote continuing competency
- G. Act as an advocate (e.g., for patients, families, and colleagues) related to ethical, legal, cultural, and psychosocial issues
- H. Professional Issues not otherwise specified