VRC VERIFICATION REVIEW CONSULTATION

for excellence in trauma centers

AMERICAN COLLEGE OF SURGEONS

VERIFICATION, REVIEW, AND CONSULTATION (VRC) PROGRAM

2 Program Scope and Governance

Rationale

The trauma program and its medical staff provide the structures, processes, and personnel to comply with trauma center verification standards in order to ensure optimal care of the injured patient. This staff includes the program leadership (TPM and TMD) to oversee key functions of the trauma program. There must also be ongoing commitment from the trauma multidisciplinary PIPS committee.

2.1 State and Regional Involvement—TYPE II

Applicable Levels

LI, LII, LIII, PTCI, PTCII

Definition and Requirements

All trauma centers must participate in the regional and/or statewide trauma system.

Additional Information

Examples of participation may include the following:

- Participation in state and regional trauma advisory committees
- Leadership in state and regional medical audit committees
- Collaboration with regional trauma advisory committees, EMS, or other agencies to promote the development of state and regional systems
- Participation in media and legislative education to promote and develop trauma systems
- Participation in state and regional trauma needs assessment or injury surveillance
- Participation in the development of a state or regional trauma plan or state trauma registry
- Provision of technical assistance and education to hospitals and their providers within the region to improve system performance

Measures of Compliance

Written documentation that demonstrates participation, such as meeting agendas

Resources

None

References

None

2.2 Hospital Regional Disaster Committee—TYPE II

Applicable Levels

LI, LII, LIII, PTCI, PTCII

Definition and Requirements

All trauma centers must participate in regional disaster/emergency management committees, health care coalitions, and regional mass casualty exercises.

Additional Information

None

Measures of Compliance

Attendance records from disaster/emergency management committee meetings, health care coalition meetings, and regional mass casualty exercises

Resources

Hospitals and Health Care Coalitions, *Office of the Assistant Secretary for Preparedness and Response: https://www.phe.gov/Preparedness/news/events/NPM18/Pages/health-care-community.aspx*

References

None

2.3 Disaster Management Planning—TYPE II

Applicable Levels

LI, LII, LIII, PTCI, PTCII

Definition and Requirements

All trauma programs must be integrated into the hospital's disaster plan to ensure a robust surgical response:

- A trauma surgeon from the trauma panel must be included as a member of the hospital's disaster committee and be responsible for the development of a surgical response to a mass casualty event.
- The surgical response must outline the critical personnel, means of contact, initial surgical triage (including subspecialty triage when appropriate), and coordination of secondary procedures.
- The trauma program must participate in two hospital drills or disaster plan activations per year that include a trauma response and are designed to refine the hospital's response to mass casualty events.

Level I trauma centers must also include an orthopaedic surgeon from the orthopaedic trauma call panel as a member of the hospital's disaster committee.

Additional Information

Tabletop exercises are acceptable for the two annual hospital drills.

Measures of Compliance

- Attendance records demonstrating trauma surgeon and orthopedic surgeon (LI, PTCI) participation in disaster committee meetings
- Hospital disaster plan that includes a surgical response
- Dates and nature of drills or activations during the reporting period

Resources

None

References

None

2.4 Level I Adult Trauma Patient Volume Criteria—TYPE I

Applicable Levels

LI

Definition and Requirements

A Level I adult trauma center must care for at least 1,200 trauma patients per year or at least 240 trauma patients with Injury Severity Score (ISS) greater than 15 per year.

Additional Information

For the purposes of this standard, a patient counts toward this volume criteria if they meet the National Trauma Data Standard (NTDS) inclusion criteria, which includes patients who meet the definition for observation status or are dead on arrival (DOA).

Measures of Compliance

Admission data that demonstrate compliance for the reporting period

Resources

ACS NTDS Data Dictionary: *https://www.facs.org/quality-programs/trauma/tqp/center-programs/ntdb/ntds/data-dictionary*

References

None

2.5 Level I Pediatric Trauma Patient Volume Criteria—TYPE I

Applicable Levels

PTCI

Definition and Requirements

A Level I pediatric trauma center must care for 200 or more injured patients under 15 years of age per year.

Additional Information

For the purposes of this standard, a patient counts toward this volume criteria if they meet the NTDS inclusion criteria, which includes patients who meet the definition for observation status or are DOA.

Measures of Compliance

Admission data that demonstrate compliance for the reporting period

Resources

ACS NTDS Data Dictionary: *https://www.facs.org/quality-programs/trauma/tqp/center-programs/ntdb/ntds/data-dictionary*

References

None

2.6 Adult Trauma Centers Admitting Pediatric Patients—TYPE I

Applicable Levels

LI, LII, LIII

Definition and Requirements

Adult trauma centers that care for 100 or more injured children under 15 years of age must have the following:

- Pediatric emergency department area
- Pediatric intensive care area
- Appropriate resuscitation equipment, as outlined in the pediatric readiness toolkit

Additional Information

This standard is applicable to programs that admit injured children but are not seeking pediatric verification. For the purposes of this standard, an admission is any patient who meets the NTDS inclusion criteria, which includes patients who meet the definition for observation status or are DOA.

Measures of Compliance

- Admission data for the reporting period
- Evaluated during the site visit process

Resources

Pediatric readiness toolkit, Emergency Medical Services for Children Innovation and Improvement Center: *https://emscimprovement.center/projects/pediatricreadiness/readiness-toolkit/*

ACS NTDS Data Dictionary: *https://www.facs.org/quality-programs/trauma/tqp/center-programs/ntdb/ntds/data-dictionary*

References

None

2.7 Trauma Multidisciplinary PIPS Committee—TYPE I

Applicable Levels

LI, LII, LIII, PTCI, PTCII

Definition and Requirements

All trauma centers must have a trauma multidisciplinary PIPS committee chaired by the TMD or an associate TMD.

Combined adult (Level I/II) and pediatric (Level II) trauma centers must hold separate adult and pediatric trauma multidisciplinary PIPS meetings with distinct minutes.

Additional Information

None

Measures of Compliance

- Terms of Reference that define the committee's scope, membership, frequency of meetings, and decision-making process

Resources

None

References

None

2.8 Trauma Medical Director Requirements—TYPE II

Applicable Levels

LI, LII, LIII, PTCI, PTCII

Definition and Requirements

In all trauma centers, the TMD must fulfill the following requirements:

- Hold current board certification or board eligibility in general surgery or pediatric surgery by the American Board of Medical Specialties (ABMS), American Osteopathic Association (AOA), or Royal College of Physicians and Surgeons of Canada (RCPS-C)
- Serve as the director of a single trauma program
- Be credentialed to provide trauma care
- Hold current Advanced Trauma Life Support (ATLS®) certification
- Participate on the trauma call panel
- Provide evidence of 36 hours of trauma-related continuing medical education (CME) during the verification cycle. For pediatric TMD, 9 of 36 hours must be pediatric-specific CME
- In Level I trauma centers, the TMD must hold active membership in at least one national trauma organization and have attended at least one meeting during the verification cycle
- In Level II or III trauma centers, the TMD must hold active membership in at least one regional, state, or national trauma organization and have attended at least one meeting during the verification cycle

If a board-certified general surgeon who is not board-certified or board-eligible in pediatric surgery serves as the pediatric TMD, then the following are required:

- The pediatric TMD must hold current Pediatric Advanced Life Support (PALS) certification
- The center must have a written affiliation agreement with a current pediatric TMD at another ACS verified Level I pediatric trauma center. This agreement must identify the affiliate pediatric TMD and at minimum include the following responsibilities:
  - Assist with process improvement, guideline development, and complex case discussions
  - Attend at least 50% of trauma multidisciplinary PIPS committee meetings
  - Attend the VRC site visit at the time of verification

Additional Information

Membership in an ACS state COT is not equivalent to membership in a national trauma organization.

A total of 30 hours of trauma-related CME obtained from board certification or recertification may be applied once to the CME criteria during the verification cycle.

In trauma centers undergoing a consultation or initial verification review, the TMD must have at least 12 hours of trauma-related CME during the reporting period.

Measures of Compliance

- Evidence of current board certification or board eligibility
- Roles and responsibilities of the TMD
- Credentialing letter
- Evidence of ATLS certification
- Call schedules
- CME certificates or Maintenance of Certification transcript
- Proof of membership in trauma organizations

For pediatric TMDs who are not board-certified in pediatric surgery, the following additional Measures of Compliance are required:

- Evidence of PALS certification
- Written affiliation agreement
- PIPS committee meeting attendance list

Resources

None

References

None

2.9 Trauma Medical Director Responsibility and Authority—TYPE II

Applicable Levels

LI, LII, LIII, PTCI, PTCII

Definition and Requirements

In all trauma centers, the TMD must be responsible for and have the authority to:

- Develop and enforce policies and procedures relevant to care of the injured patient
- Ensure providers meet all requirements and adhere to institutional standards of practice
- Work across departments and/or other administrative units to address deficiencies in care
- Determine (with their liaisons) provider participation in trauma care, which might be guided by findings from the PIPS process or an Ongoing Professional Practice Evaluation (OPPE)
- Oversee the structure and process of the trauma PIPS program

Additional Information

None

Measures of Compliance

Roles and responsibilities of the TMD

Resources

None

References

None

2.10 Trauma Program Manager Requirements—TYPE II

Applicable Levels

LI, LII, LIII, PTCI, PTCII

Definition and Requirements

In all trauma centers, the TPM must fulfill the following requirements:

- Have 1.0 full-time equivalent (FTE) commitment to the trauma program
- Provide evidence of 36 hours of trauma-related continuing education (CE) during the verification cycle
- Hold current membership in a national or regional trauma organization

In Level II and III trauma centers, at least 0.5 FTE of the TPM's time must be spent on TPM-related activities. The remaining time must be dedicated to other roles within the trauma program.

In combined programs that are Level II adult and Level II pediatric trauma centers, it is acceptable for the pediatric TPM of a Level II pediatric trauma center to serve at least 0.5 FTE as the pediatric TPM. The remaining time must be devoted to other roles within the adult or pediatric trauma program.

Additional Information

The TPM assumes day-to-day responsibility for process and PI activities as they relate to nursing and ancillary personnel involved in the care of trauma patients. The TPM's role also includes partnering with the TMD in the development of policies and oversight of the program.

In trauma centers undergoing a consultation or initial verification review, the TPM must have at least 12 hours of trauma-related CE during the reporting period.

Measures of Compliance

- Roles and responsibilities of the TPM
- CE certificates or transcripts
- Proof of membership in trauma organizations

Resources

None

References

None

2.11 Trauma Program Manager Responsibilities and Reporting Structure—TYPE II

Applicable Levels

LI, LII, LIII, PTCI, PTCII

Definition and Requirements

In all trauma centers, the TPM must have a reporting structure that includes the TMD and they are to assume at minimum, the following leadership responsibilities in conjunction with the TMD and/or hospital administration

- Oversight of the trauma program
- Assist with the budgetary process for the trauma program
- Develop and implement clinical protocols and practice management guidelines
- Provide educational opportunities for staff development
- Monitor performance improvement activities in conjunction with a PI coordinator (where applicable)
- Service as a liaison to administration and represent the trauma program on hospital and regional committees to enhance trauma care
- Have oversight of the trauma registry

Additional Information

The reporting structure must, at minimum, include a "dotted line" to the TMD to ensure that the TMD and TPM are aligned in setting goals for the benefit of the trauma program and its patients.

Measures of Compliance

- Relevant organizational chart
- Role profile/description that highlights the responsibilities of the trauma program manager

Resources

None

References

None

2.12 Injury Prevention Program—TYPE II

Applicable Levels

LI, LII, LIII, PTCI, PTCII

Definition and Requirements

All trauma centers must have an injury prevention program that:

- Has a designated injury prevention professional
- Prioritizes injury prevention work based on trends identified in the trauma registry and local epidemiological data
- Implements at least two activities over the course of the verification cycle with specific objectives and deliverables that address separate major causes of injury in the community
- Demonstrates evidence of partnerships with community organizations to support their injury prevention efforts

In Level I trauma centers, the injury prevention professional must be someone other than the TPM or PI personnel.

Additional Information

While there are no specific certification requirements for an injury prevention professional, this individual would have the skills to lead trauma center efforts to develop and maintain an organized, interdisciplinary, public health approach to injury prevention. Examples of injury prevention areas of focus include:

- Motor vehicle occupant safety
  - Child passenger safety seat education
  - Distracted driving
- Motorcycle and bicycle safety/helmet initiatives
- Pedestrian safety
- Fall prevention
- Firearm injury prevention programs
- Violence intervention and screening programs
- STOP THE BLEED® program as a community engagement strategy

Specific objectives and deliverables for each of the prevention initiatives should be documented in advance of implementation so that centers can describe their successes relative to their stated goals.

In trauma centers undergoing a consultation or initial verification review, the injury prevention program must implement at least one activity over the course of the reporting period with specific objectives and deliverables that address separate major causes of injury in the community.

Measures of Compliance

- Job description for relevant staff
- Graphs/tables highlighting recent injury mechanism trends from registry
- Report of injury prevention activities including the following:
  - Activity name
  - Activity date
  - Participation data
  - Evaluation of outcomes (where feasible)
- Program objectives and deliverables for each injury prevention activity
- Any materials (including posters, flyers, press releases, etc.) relevant to the injury prevention initiatives

Resources

Below are suggestions for planning optimal injury prevention and violence intervention strategies with the greatest impact.

- **Utilize available data:** Identify high rates of injury and the populations in which these injuries occur. Analyze data to determine the mechanisms of injury, injury severity, and contributing factors. Utilize multiple injury and death data sources to reflect the true burden of injury.
- **Target at-risk populations:** Identify, understand, and target efforts toward at-risk populations while being sensitive to generational differences, as well as cultural, religious, and other established customs. Engage target population as a key stakeholder in development, implementation, and evaluation of the intervention.[1]
- **Leverage partnerships:** Make use of other trauma centers, prehospital organizations, public health and violence prevention organizations, law enforcement agencies, schools, churches, and others interested and involved in community injury prevention efforts.
- **Choose effective or well-informed intervention strategies:** New intervention program development, assessment, and implementation are complex and time-consuming. Not all proven interventions work in every population. Evidence-informed interventions may still require adaptation for demographic and risk factor differences.[2–6]
- **Develop a plan:** Logic models are a best-practice method to plan intervention strategies and should be utilized to outline the intervention effort, including delineating risk and protective factors.[7]

- **Evaluate:** Develop surveillance and monitoring tools to assess not only the available performance indicators of the trauma center's prevention efforts but also the prevention effectiveness. Evaluation efforts should start at program inception with a feasibility assessment and include intermediate and long-term outcomes.
- **Communicate:** Partner with local print and broadcast media, and be prepared for many opportunities for trauma center leaders to serve as a reliable source of injury prevention information. Understand your stakeholders and the at-risk populations, and articulate your prevention message based upon their vantage point.[7]
- **Advocate:** Elected and appointed leaders can help implement prevention efforts if the trauma center understands their goals and ways to work with them to create effective laws promoting prevention.

The list below includes ways in which trauma centers might track and report their prevention activities:

- Description of the mechanism of injury or root causes and risk factors of injury targeted by prevention programs
- Dates and locations of intervention events
- Trauma center resources
- Personnel hours (paid and volunteered)
- Trauma center expenses
- Community partners and their personnel hours
- Other sources of financial support
- Media exposure
- Involvement of elected and appointed officials
- Public policy initiatives or legislation
- Number of community members reached with prevention message or service
- Available outcome data related to the prevention activity and its target
- Strategic evaluation program, from inception to long-term outcomes

The Safe States Alliance provides direction on the core elements of injury prevention programs. The guidance offers programs ideas on how they might be expanded or strengthened and provides a description of what constitutes a model program: *https://www.safestates.org/page/traumaivp*.

The American Trauma Society, in partnership with the Trauma Prevention Coalition, has a training program for injury prevention professionals: *https://www.amtrauma.org/page/InjuryPrevention*.

Centers with high rates of trauma due to interpersonal violence might find this primer on developing a hospital-based violence intervention program helpful: *https://www.facs.org/quality-programs/trauma/advocacy-and-injury-prevention/firearm-injury-prevention-activities/violence-intervention-programs/* and can also find helpful information from the Health Alliance for Violence Intervention at *https://www.thehavi.org/*.

Helpful injury prevention resources for intentional and unintentional injury prevention can be found on the ACS COT's website, *https://www.facs.org/quality-programs/trauma/advocacy/ipc*.

References

Newcomb AB, Zadnik M, Carlini AR, et al. Barriers and Facilitators to the Implementation of Injury Prevention Programs: A Qualitative Exploration and Model Development. *J Trauma Nurs*. 2020;27(6):335–345. doi: 10.1097/JTN.0000000000000540.

Nilsen P. What Makes Community Based Injury Prevention Work? In Search of Evidence of Effectiveness. *Inj Prev*. 2004;10(5):268–274. doi: 10.1136/ip.2004.005744.

1. Puddy RW, Wilkins N. Understanding Evidence Part 1: Best Available Research Evidence—A Guide to the Continuum of Evidence of Effectiveness. Centers for Disease Control and Prevention; 2011. Available at: https://www.cdc.gov/violenceprevention/pdf/understanding_evidence-a.pdf. Accessed February 5, 2022.
2. Evidence-Based Falls Prevention Programs. National Council on Aging. January 1, 2021. Available at: https://www.ncoa.org/article/evidence-based-falls-prevention-programs. Accessed February 5, 2022.
3. Technical Packages for Violence Prevention. Centers for Disease Control and Prevention; 2020. Available at: https://www.cdc.gov/violenceprevention/communicationresources/pub/technical-packages.html. Accessed February 5, 2022.
4. Evidence-Based Strategies and Readings for Child Safety CoIIN. Children's Safety Network. Available at: https://www.childrenssafetynetwork.org/sites/default/files/Evidence-Based%20Strategies%20and%20Readings%20for%20CS%20CoIIN.pdf. Accessed

February 5, 2022.

5. Selected Evidence-Based Strategies for Preventing Injuries. Indian Health Service, Office of Environmental Health & Engineering, Division of Environmental Health Services; 2021. Available at: https://www.ihs.gov/sites/injuryprevention/themes/responsive2017/display_objects/documents/IHS_IPP_Evidence-based_Strategies.pdf. Accessed February 5, 2022.
6. Adding Power to Our Voices: A Framing Guide for Communicating About Injury. Centers for Disease Control and Prevention; 2010. Available at: https://www.cdc.gov/injury/pdfs/framing/CDCFramingGuide-a.pdf. Accessed February 5, 2022.

2.13 Organ Procurement Program—TYPE II

Applicable Levels

LI, LII, LIII, PTCI, PTCII

Definition and Requirements

In all trauma centers, an organ procurement program must be available and consist of at least the following:

- An affiliation with an organ procurement organization (OPO)
- A written policy for notification of the regional OPO
- Protocols defining clinical criteria and confirmatory tests for the diagnosis of brain death

Additional Information

This standard pertains to solid organ procurement from trauma patients only.

Measures of Compliance

- OPO affiliation agreement
- Regional OPO notification policy
- Protocol for brain deaths

Resources

None

References

None

2.14 Child Life Program—TYPE II

Applicable Levels

PTCI, PTCII

Definition and Requirements

All pediatric trauma centers must have a child life program.

Additional Information

Child life programs promote emotional safety, reduce distress, increase adaptive coping, and protect and enhance developmental integrity by offering opportunities for therapeutic play, preparation, education, and interaction with others in an emotionally and physically safe environment.

Measures of Compliance

- Description of the scope of the child life program
- Roles and responsibilities of the position responsible for administering child life program

Resources

None

References

None

AMERICAN CO
SURGEONS A
OF SURGEON
COLLEGE OF
AMERICAN CO
SURGEONS A
OF SURGEON
COLLEGE OF
AMERICAN CO
SURGEONS A