

STATE OF NEW HAMPSHIRE

TRAUMA SYSTEM PLAN

VERSION 5.0

**New Hampshire Department of Safety
Division of Fire Standards and Training & Emergency Medical Services**

Trauma Medical Review Committee

New Hampshire Department of Safety

Division of Fire Standards and Training & Emergency Medical Services

Trauma System Plan, Version 5.0

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- Added Appendix D – Additional Information

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- Updated descriptions of trauma designation levels
- Added Appendices E and F – References and Designation Checklist

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The Development of the New Hampshire Trauma System Plan is a collaborative effort of the **NEW HAMPSHIRE DEPARTMENT OF SAFETY, DIVISION OF FIRE STANDARDS AND TRAINING & EMERGENCY MEDICAL SERVICES** and the **NEW HAMPSHIRE TRAUMA MEDICAL REVIEW COMMITTEE**. The dedication of these medical professionals, who volunteer their time, in the name of improving trauma care for the citizens and visitors of the Granite State is paramount to the success of the system.

New Hampshire Trauma System Plan Version 5.0

TABLE OF CONTENTS:

INTRODUCTION 6

 Emerging Linkages between Public Health and Trauma Systems 8

 The Trauma System Approach..... 9

 The Public Health System 10

 Integration of Trauma Care and Public Health Systems 11

SECTION ONE: ADMINISTRATIVE COMPONENTS:..... 13

 Organization and Management: 13

 I. Description:..... 13

 II. Standards:..... 14

 System Management:..... 14

 I. Description:..... 14

 II. Standards:..... 15

 Trauma System Lead Agency: 15

 Authority and Responsibilities of the Commissioner of Safety:..... 15

 Authority and Responsibilities of the Division of Fire Standards and Training and
 Emergency Medical Services:..... 16

 Authority and Responsibilities of the Emergency Medical and Trauma Services
 Coordinating Board: 16

 Authority and Responsibilities of the Trauma Medical Review Committee: 17

 Injury Prevention: 18

 I. Description:..... 18

 II. Standards:..... 19

 Trauma System Performance Improvement Program: 20

 I. Description:..... 20

 II. Standards:..... 22

 III. Trauma Facility and EMS Provider Trauma Performance Improvement Program
 Guidelines:..... 27

SECTION TWO: CLINICAL COMPONENTS:..... 29

New Hampshire Trauma System Plan Version 5.0

Prehospital Trauma Services:..... 29

 I. Description:..... 29

 II. Prehospital Trauma System Sub-Components: 30

Hospital Trauma Services:..... 36

 I. Description:..... 36

 II. Standards:..... 37

 III. Process of Participation:..... 39

 IV. Inter Hospital Trauma Patient Transfer..... 42

 V. Telemedicine..... 43

 VI. Pediatric Facility Standards 44

 VII. New Hampshire Trauma Hospital Checklist..... 46

APPENDIX A: MANDATORY PERFORMANCE AND PATIENT SAFETY CRITERIA 47

APPENDIX B: APPLICABLE STATE TRAUMA LAW 48

 Section 153-A:8..... 48

APPENDIX C: NEW HAMPSHIRE TRAUMA REGISTRY 49

APPENDIX D: ADDITIONAL RESOURCES.....58

APPENDIX E: REFERENCES.....59

APPENDIX F: DESIGNATION CHECKLIST60

INTRODUCTION

The residents of the State of New Hampshire support a comprehensive statewide trauma system. This support is based on the following beliefs:

1. Traumatic injury is one of the principal causes of premature death and unnecessary disability.
2. Residents and visitors are entitled to the highest level of emergency and trauma care services.
3. The organized and coordinated delivery of emergency medical and trauma care services will result in an improved system of health care services throughout the state.

The statewide trauma system is described in this document, the New Hampshire (NH) Trauma System Plan. This document is designed to provide trauma care professionals, public health officers, and health policy experts with direction to fully integrate the public health and trauma care systems of New Hampshire. It offers guidance to promote the effective collaboration of all whose charge includes the health and welfare of the public.

This model emphasizes a public health approach to trauma system development. The system is inclusive in nature and engages not only all health care facilities to the level of their capabilities, but also the full range of public health services available in the communities served. The overall goal is a collaboration of these two systems of health care to reduce the incidence and severity of injury, as well as to improve the outcomes of those who are injured.

The NH Trauma System Plan has been developed within the public health system framework. In this document trauma care professionals are introduced to the use of the public health framework as a guide for trauma system management. Public health professionals will be introduced to an understanding of an inclusive trauma system organized within the commonly accepted parameters of the public health approach. Health care policy makers will be introduced to collaborative opportunities in which the public health system and the trauma care system can partner to reduce the total burden of injury in the community.

An important principle of the NH Trauma System Plan is that the effective delivery of trauma services to adult and pediatric trauma patients requires the formal, consistent, and

coordinated action of several agencies and facilities. Formalizing the trauma system adds additional administrative and regulatory components to the current structure while reinforcing the relationships and responsibilities of the trauma system participants.

Traumatic injury refers to physical injuries that pose discernible risk for death or long-term disability. According to the statistical data collected by the Centers for Disease Control and Prevention, the trend of death by unintentional injury has increased annually. Based on the trends shown in the data, these totals are likely to increase in the future rather than decrease.

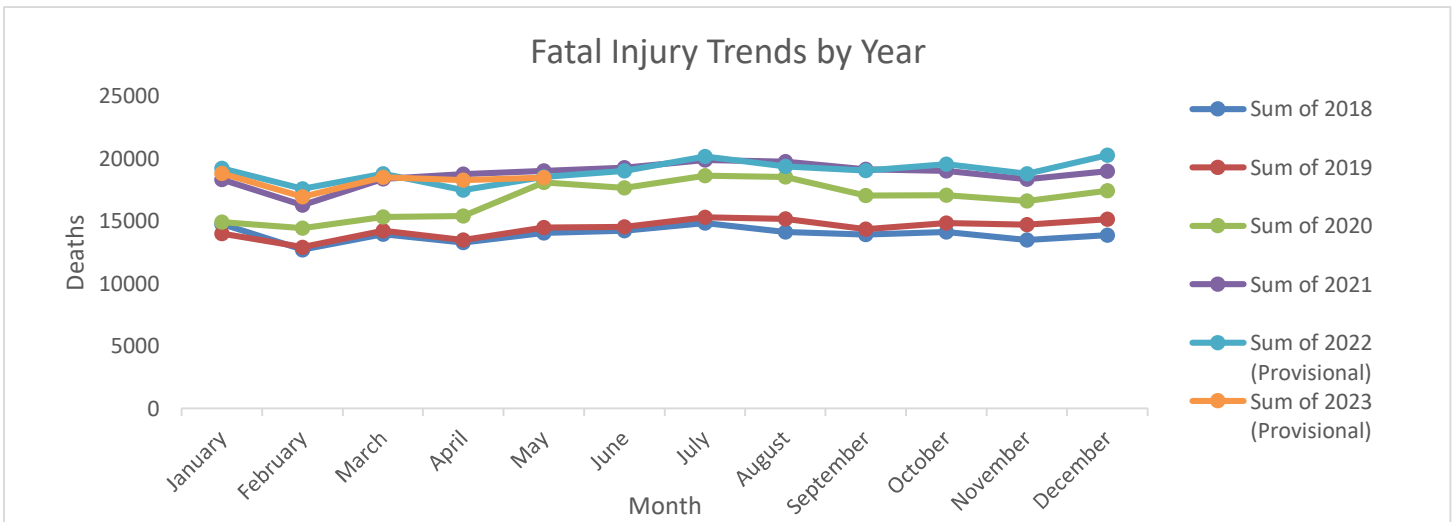


Figure 1 Fatal injury trends from 2018 through May 2023. Note that 2022 and 2023 totals are provisional and are subject to change. Source: Centers for Disease Control and Prevention, Fatal Injury Trends. <https://www.cdc.gov/injury/wisqars/fatal/trends.html>

Trauma is among the leading causes of death for Americans under 44 years of age (including homicides) and is among the top ten causes of death for all other age groups. In addition to the medical, psychosocial, and financial burdens placed on individuals, families, and hospitals^[1]. Society is profoundly affected by injury.

The Centers for Disease Control and Prevention reports the cost of injury in 2019 totaled \$4.2 trillion^[2]. This estimate includes direct medical care, rehabilitation, lost wages, and lost productivity. Specific costs which are part of this total include cost of Traumatic Brain Injury (TBI), Opioid Use Disorder, Motor Vehicle deaths and injuries, falls injuries to older adults, and child abuse and neglect.

When national preparedness for all types of disasters is considered; the need for effective injury response (trauma) systems is evident. Even with current efforts to minimize injury, it continues to be "the neglected disease of modern society," as it was described in the 1966 white paper *Accidental Death and Disability: The Neglected Disease of Modern Society*^[3].

Trauma care of persons with multiple, severe injuries is believed to be as available and reliable nationwide as police and fire protection. Unfortunately, this belief is not universally true. Although great strides have been made during the past generation in extending emergency medical and trauma care to the citizens of our nation, most states are realizing that they need to create, further develop, or enhance their state's ability to care for trauma patients through system development.

Emerging Linkages between Public Health and Trauma Systems

Nationwide the increased incidence of major trauma in the late 1980s and early 1990s led public health professionals to recognize obvious parallels between the epidemiologic behaviors of illnesses and injuries. It also led these professionals to champion a public health approach to injury prevention.

Injury prevention leaders recognized that public health strategies tested during the years of communicable disease eradication could be successfully applied to the prevention of injury. As a result, these leaders developed methods used for effective injury prevention programs.

Additionally, the tragic events of September 11, 2001 prompted a reassessment of the strengths and weaknesses of the emergency care and public health systems. Not only did an awareness of the need for prepared and fully interoperable emergency medical, trauma care, and disaster response systems increase, but recognition of the importance of the public health infrastructure in responding to terrorist threats for all hazards became evident.

The Trauma System Approach

A trauma care delivery system consists of an organized approach to facilitate and coordinate a multidisciplinary system response to provide care for those who experience severe injury. The system encompasses a continuum of care that provides injured persons with the greatest likelihood of returning to their prior level of function and interaction within society. This continuum of care includes injury prevention, EMS 9-1-1/dispatch, medical oversight of prehospital care, appropriate triage and transport, emergency department trauma care, trauma hospital team activation, surgical intervention, intensive and general in- hospital care, rehabilitative services, mental and behavioral health, social services, community reintegration plans, and medical care follow-up.

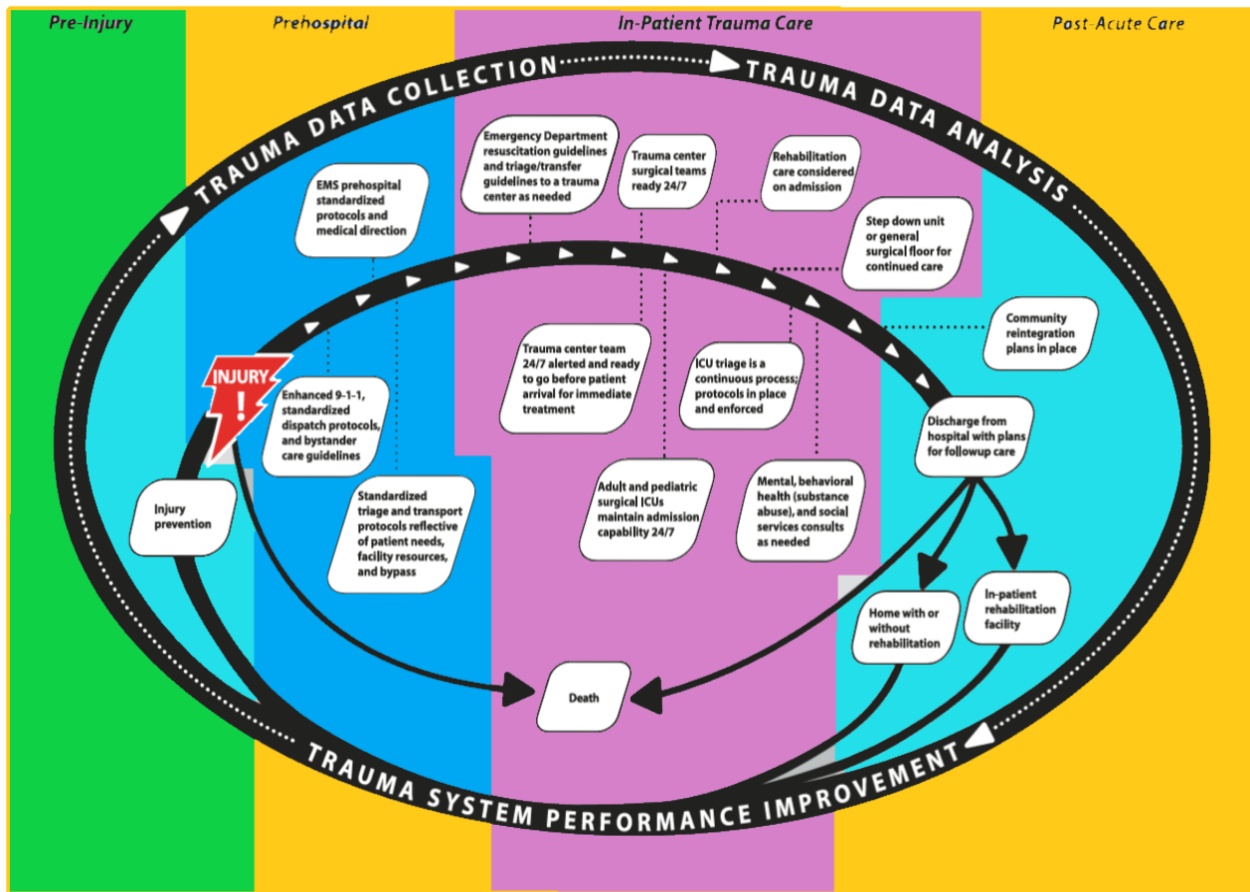


Figure 2 A Preplanned Trauma Care Continuum. Source: US Department of Health and Human Services, Health Resources and Services Administration, Trauma-EMS Systems Program: Model Trauma Systems Planning and Evaluation, February 2006.

There are many phases in the process of care for those who are traumatically injured. Injury prevention initiatives can do a very good job to maintain injury rates at a minimum. When injury occurs, each phase of care, as demonstrated in Figure 2, should occur seamlessly. Injury data should be collected throughout each phase of care and analyzed so that data usage will yield continuous performance improvement in trauma care delivery.

Many components make up the NH Trauma System. Detailed planning is required for all components to interface successfully and health professionals to interact properly, enabling the trauma system to work effectively. This statewide network, or system of health care delivery, requires a multidisciplinary team approach. Such an approach is a requirement for an inclusive, seamless system of health care delivery in which all involved health care providers function in pre-planned concert with one another.

Emergency Medical Services (EMS) providers match patients, through protocols and medical supervision, with the correct medical facility equipped with the right resources to best meet the patient's needs. This approach may mean bypassing the closest medical facility.

A trauma system is a partnership between public and private entities to address injury as a public health problem. These entities have common interests (e.g., right patient, right hospital, and right time) and interdependent goals (e.g., injury prevention strategies for the community, and quality care in all settings – prehospital, hospital, and rehabilitation). The trauma system must effectively address the needs of the adult population and the specialized needs of seriously injured children.

The Public Health System

Public health is "the science of protecting and improving the health of people and their communities. This work is achieved by promoting health lifestyles, researching disease and injury prevention, and detecting, preventing, and responding to infectious diseases^[4]." The public health system exists to ensure a safe and healthy environment for all citizens in their homes, in schools, in workplaces, and in such public spaces as medical care facilities, transportation systems, commercial locations, and recreational sites. To achieve the best population health, the public health system functions through activities

undertaken within the formal structure of government and the associated efforts of private and voluntary organizations and individuals.

The public health system is a complex network of individuals and organizations that have the potential to play critical roles in creating conditions for health. The collaborative effort between these individuals and organizations is the framework needed to influence social policy that supports health. The primary strategy of the public health approach is the following:

- Identify a problem based on data [Assessment]
- Devise and implement an intervention [Policy Development]
- Evaluate the outcome [Assurance]

The public health approach is a proven, systematic method for identifying and solving problems. Improvements in the public health system, in partnership with the health care system, can be accomplished through informed, strategic, and deliberate efforts to positively affect health.

Integration of Trauma Care and Public Health Systems

The application of the public health model to trauma systems is based on the concept that injury as a disease can be prevented and/or its negative impacts decreased by primary, secondary prevention efforts. Efforts to prevent or decrease the morbidity and mortality from injury are similar to those taken for infectious diseases. Thus, injury prevention is an essential component of the trauma system continuum of care. This concept provides support for public health system collaboration on targeted risk reduction programs for injury prevention, including major trauma.

Specialized trauma care is not enough to minimize the burden of injury to society at large. It must be combined with other risk reduction strategies to reduce the overall burden of physical injury. Many experts in trauma care and injury prevention recognize the need for both excellent trauma care and effective injury prevention programs to reduce injury deaths and disabilities.

This goal can be accomplished when private-public partnerships between health care providers and public health agencies emphasize optimal approaches for the three phases of injury prevention. Key objectives in reducing the burden of injury and in making improvements in the trauma care of persons with serious injury include forging effective collaborations among community health care facilities and public health agencies. Injury will be significantly reduced through planned interventions that are based on public health strategies.

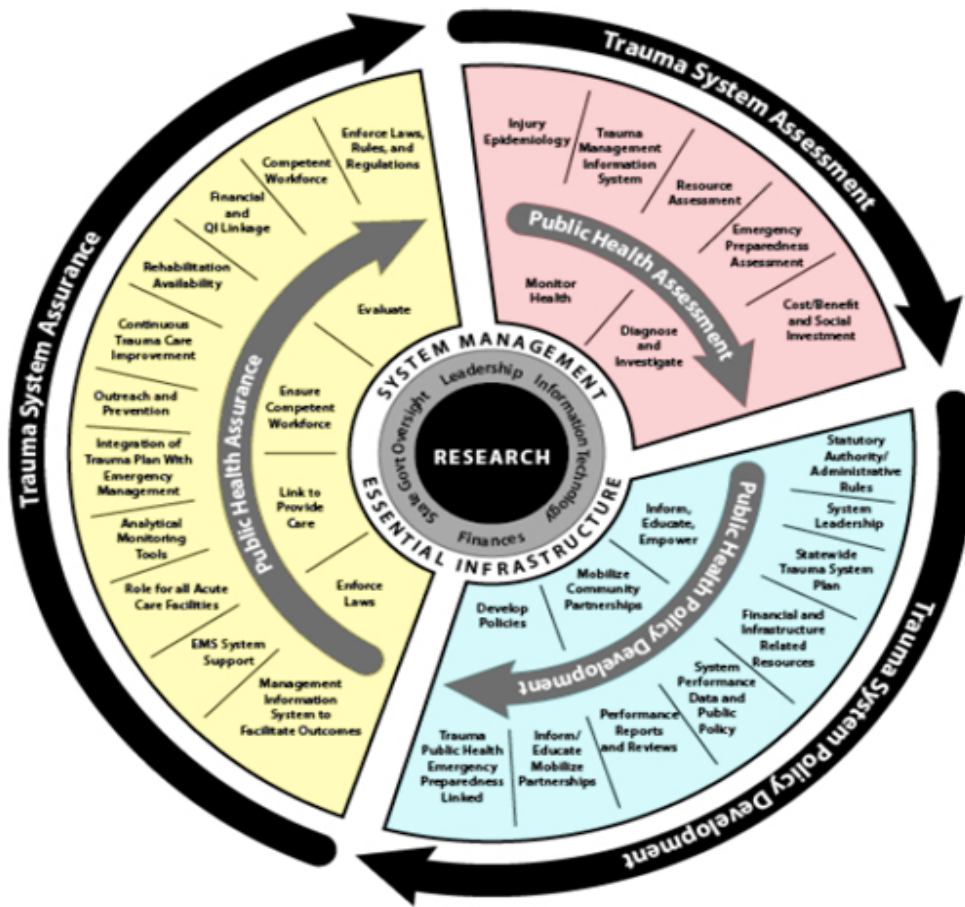


Figure 3 demonstrates public health functions (PH) and trauma system functions (TS) in one wheel. It displays how the conceptual public health model applies to trauma system planning.

The application of the public health approach to trauma system development will result in the following:

- Recognition that injury continues to be a public health problem of monumental importance despite significant efforts at trauma system development.
- Identification and management of injury and trauma system-related problems using data driven problem identification and evaluation methods as employed by public health professionals.
- Access to local, regional, and state public health professionals with injury prevention training and experience, as well as a broader range of injury prevention strategies.
- Expansion of the focus of outreach for trauma system injury prevention.

SECTION ONE: ADMINISTRATIVE COMPONENTS:

Organization and Management:

I. Description:

The NH Trauma System is an organized and coordinated delivery of pre-hospital, hospital and rehabilitation medical and health care services. The organizational structure of the NH Trauma System is dictated by the course of appropriate medical treatment and admission of all injured patients with specific emphasis on the optimal care needs of the severely injured trauma patient. The organizational structure of the NH trauma system identifies and defines the authorities and responsibilities of each system provider (agency or facility), the relationships between each facility and the reporting requirements between each.

Statewide trauma systems have an additional organizational feature, a trauma system administrative lead agency and governing or coordinating board. The New Hampshire Department of Safety, Division of Fire Standards and Training and Emergency Medical Services (FSTEMS) is the lead agency that has the responsibility and authority to administer the system. The Trauma Medical Review Committee (TMRC) is the coordinating board for trauma care.

The NH Trauma System recognizes and addresses the need for effective and competent care of both the adult and pediatric trauma patient.

II. Standards:

The organizational structure of the NH Trauma System fosters coordinated action by each system participant to assure and facilitate the appropriate course of medical treatment that is necessary for the severely injured trauma patient. The statewide trauma system adds an administrative and regulatory structure to the delivery of trauma services and formalizes the relationships and responsibilities of the trauma system participants.

The NH Trauma System is a voluntary, inclusive trauma system. One of the hallmarks of a trauma system is the ability to categorize hospitals according to the level of resources each can apply to the definitive care of trauma. A level I trauma hospital has the resources to treat a seriously injured patient as well as the ability to conduct research and support educational activities. A Level II trauma hospital has the resources to treat seriously injured patients with some specialized exceptions. A community hospital (Level III or IV) might be capable of providing definitive care to patients with minor or moderate injury. Its role in providing care for severely injured patients is limited to stabilization and transfer.

The NH Trauma System is voluntary in that hospitals may choose to actively participate in the trauma system by seeking trauma hospital designation. A NH hospital seeking designation at a particular level agrees to meet the standards outlined in this plan, undergo an assessment of its ability to meet the standards, and adhere to those standards.

An inclusive trauma system means that all acute care hospitals with emergency departments are recognized to have a role in trauma care, whether or not they actively participate in the NH Trauma System through trauma hospital designation. Non-participating hospitals in the NH Trauma System benefit from statewide performance improvement activities, improvements in care delivered by EMS providers, educational opportunities, and consulting services offered through the Clinical Systems Section of FSTEMS.

System Management:

I. Description:

An effective trauma system is one which has a lead agency or bureau implementing the recommendations of a coordinating board. This board oversees the administration and

operational planning of a coordinated statewide emergency medical services system. This includes provision of trauma care. A further description of a coordinating board's duties can be found in the following section.

The delivery of trauma care services to severely injured trauma patients in New Hampshire involves several agencies and facilities providing rapid and coordinated health care services to individual trauma patients. These agencies are prehospital emergency medical service providers, assigned trauma hospitals, other acute care hospitals, rehabilitation facilities and specialty care facilities.

In optimal trauma systems each of these diverse agencies provide trauma services based on specific performance standards, operate in a coordinated manner and continually strive to improve their individual and coordinated delivery of service.

II. Standards:

The NH Trauma System is a coordinated system managed on the state level by FSTEMS which should have sufficient resources and personnel to effectively manage the trauma system.

To assure public accountability and responsiveness to the needs of the trauma system service providers, the TMRC is composed of representatives of the trauma system, including clinical participants and governmental officials. Public participation is an important aspect of this committee, and it is encouraged by its members.

Trauma System Lead Agency:

Authority and Responsibilities of the Commissioner of Safety:

The Commissioner of Safety is empowered to educate the public, establish a data collection system and provide for training of providers about the trauma system. The Commissioner of Safety is specifically empowered by RSA 153-A:7 to:

- Adopt rules, with the approval of the Coordinating Board and the Trauma Medical Review Committee, in accordance with RSA 153-A:20.
- Oversee the establishment of the Trauma Medical Review Committee.

With regard to rule making authority specifically for the Trauma System, the Commissioner of Safety is empowered by RSA 153-A:20 to develop rules relative to:

- Patient triage and transfer
- The categories of classification of hospitals which provide adult and pediatric trauma services

**Authority and Responsibilities of the Division of Fire Standards and Training and
Emergency Medical Services:**

The staff to administer the day-to-day operation of the trauma system has been organizationally placed within the NH Department of Safety, Division of Fire Standards and Training and Emergency Medical Services, and has been charged with the following responsibilities:

- Implement the Trauma Plan.
- Perform staff and clerical functions needed by the Trauma Medical Review Committee to carry out its responsibilities, specifically staff and clerical services related to hospital classification and participation.
- Monitor the performance of trauma system service providers in accordance with standards, criteria and provider obligations recommended by the Trauma Medical Review Committee
- Implement the system-wide data collection program and system quality management and evaluation program.
- Facilitate the implementation of injury prevention and public education and information programs.

**Authority and Responsibilities of the Emergency Medical and Trauma Services
Coordinating Board:**

Regarding the Trauma System, the Emergency Medical and Trauma Services Coordinating Board is empowered by New Hampshire RSA 153-A:4 to:

- Routinely assess the delivery of emergency medical services, based on information and data provided by the Division and from other sources the board deems appropriate, with particular attention to the quality and availability of care.
- Propose rules to the Commissioner prior to their adoption under RSA 541-A or

consider and advise on rules proposed by the Commissioner.

- Approve statewide trauma policies, procedures, and protocols of the statewide trauma system and the establishment of minimum standards for system performance and patient care proposed by the Commissioner prior to their adoption under RSA 541-A.
- Coordinate interstate cooperation and delivery of emergency medical and trauma services.

Authority and Responsibilities of the Trauma Medical Review Committee:

The Trauma Medical Review Committee is empowered by NH RSA 153-A:8 V to:

- a. Develop and routinely update the adult and pediatric trauma system plan
- b. Review statewide system operations, including monitoring adherence to established guidelines and standards, the availability of appropriate resources, and the periodic review of trauma hospital classification criteria
- c. Review the delivery of emergency medical services by providers and units concerning the provision of care to trauma patients
- d. Make recommendations to the Coordinating Board based on the reviews described in (a) and (b) above.
- e. Recommend to the Emergency Medical Services Medical Control Board modifications of the protocols of trauma care as a result of system-wide review
- f. Assist trauma hospitals in the development and implementation of trauma quality improvement programs
- g. Establish such subcommittees as deemed appropriate to carry out the functions of the committee
- h. Assist the Coordinating Board in the coordination of a system of comprehensive emergency medical services and the establishment of standards throughout the state by advising the Coordinating Board on policies, procedures and protocols

The TMRC will periodically review data collected by FSTEMS in order to evaluate trauma system operations, including monitoring compliance with standards, availability of appropriate resources, maintaining confidentiality, and periodic review of trauma facility standards.

Injury Prevention:

I. Description:

A primary goal of the NH Trauma System is to decrease the incidence and severity of trauma. To accomplish this goal, the NH Trauma System will utilize a statewide public health initiative which considers injury as a disease that can be prevented, or its negative impacts decreased. This concept provides support for collaboration between trauma system managers, community health care providers, including EMS and fire service personnel, and public health agencies. It also allows the injury prevention initiative to address all phases of injury prevention efforts. Combining the expertise of professionals from many organizations enables effective leveraging of all resources for injury prevention and their coordination with the trauma system in tertiary prevention.

Statewide injury prevention planning, implementation and evaluation require extensive collaboration between agencies and organizations beyond those providing direct clinical care. The NH Injury Prevention Program located in the NH Department of Health and Human Services has overall responsibility for the development, implementation and evaluation of the NH Injury Prevention Plan. Members of the FSTEMS Clinical Systems group will collaborate closely with the NH Injury Prevention Program to implement and monitor its injury prevention initiatives and programs.

A critical element of an injury prevention program is the necessity for statewide data to assess the incidence and severity of injury in the state and local communities. Data are collected and analyzed by many agencies and organizations, but individual databases may provide an incomplete analysis of injury occurrence. Collaboration of these various organizations and sharing of data will enhance monitoring capability and development of directed prevention programs. Potential data sources include vital statistics, hospital discharges, emergency department discharges, Behavioral Risk and Youth Risk Surveys (BRFSS/YRBS), trauma registries, State Fire Marshal, NH DHHS Data Portal (WISDOM), CDC WISQARS, NH Office of the Chief Medical Examiner, National Violent Death Reporting System, Prescription Drug Monitoring Program, Overdose Data to Action (OD2A – CDC),

NHTSA Fatality Analysis Reporting System (FARS), and FSTEMS patient care reporting (TEMSIS/NHESR).

II. Standards:

The NH State Trauma System will be an active partner in the NH Department of Health and Human Services based Injury Prevention Program whose aim is to reduce injury-related morbidity and mortality. This will include creating a memorandum of understanding and/or data sharing agreement with DHHS to formalize this collaborative relationship. NH State Trauma Program Leadership will:

- Partner with injury prevention programs and advocates initiatives to address statewide and community-based prevention strategies identified in the NH State Injury Prevention Plan. The NH State Injury Prevention Plan is posted under publications on the following website: <https://www.dhhs.nh.gov/programs-services/population-health/maternal-child-health/injury-prevention> and is updated periodically.
- Review recommendations regarding injury prevention as noted in the 2016 Trauma System Consultation Report to address any gaps and opportunities noted. For example, consider using the Trauma System Self-Assessment Supplemental Tool: Benchmarks, Indicators, and Scoring Tool (BIS) to define NH's system-specific health status benchmarks and performance indicators.
- Issue a quarterly report with EMS/trauma registry data on the 5 most common injuries (winter, spring, summer, fall). This should include a category for EMS runs that did not result in transport and share the findings with the TMRC membership.
- Assist and participate in creating a clearinghouse of community/department injury prevention activities and resources categorized by county and focusing on both intentional and unintentional injury. Utilize the framework of the NH Public Health Networks to achieve this goal. Examples include co/smoke detector distribution, falls prevention, youth activities, health fairs, etc. Use presentations like Stop the Bleed® as an example of community outreach, continue to promote EMS/community partnerships using other national and state injury prevention strategies.
- Share on-line education/resources/toolkits with hospitals, EMS, rehabilitation providers and law enforcement partners to assist with their efforts to provide enhanced primary injury prevention efforts. Examples include web sites such as Safe Kids Worldwide Member Resource Network, NH Falls Task Force, NH Teen Driver, HighwaySafety4NH, etc.
- Designate a trauma program member to attend the Injury Prevention Advisory

Council (IPAC) quarterly meetings in an effort to coordinate injury prevention efforts and data sharing.

Hospitals play an important role in reducing the impact of injury in their communities by providing leadership and participating in targeted evidence-based prevention efforts. Hospitals are urged to take part in ongoing prevention programs that meet their community's needs. Ideally hospitals should:

- Designate a prevention coordinator who is knowledgeable about the core competencies of injury and violence prevention.
- Implement targeted injury prevention programs/strategies using trauma information specific to their communities.
- Participate in existing public health network and community prevention coalitions or activities.

Trauma System Performance Improvement Program:

I. Description:

The NH Trauma System statewide performance improvement program is a system-wide evaluation program that monitors the performance of the trauma system over time and assesses the system's impact on trauma patient mortality and morbidity. It is important to understand that there are two major foci of the statewide performance improvement program; a system-wide performance improvement program and individual hospital and EMS agency trauma performance improvement programs. These two programs operate concurrently and there is a direct relationship between the statewide performance improvement program and the performance improvement programs of the individual trauma care service providers. The trauma care service providers, particularly the hospitals, will gather detailed data regarding services rendered to trauma patients.

These providers will also submit specific data elements relating to system-wide issues to the statewide trauma performance improvement program. This statewide program will routinely analyze and report on the effectiveness and efficiency of the overall trauma system.

System-Wide Data

A crucial part of a system-wide performance improvement program is the collection of system-wide data. This data is typically collected through a statewide trauma registry. In addition, nationwide trauma databases have been established. Hospitals that actively participate in the NH Trauma System are required to submit data to the state trauma registry. See Appendix C for information regarding the statewide trauma registry.

Prehospital Data

The Division of Fire Standards and Training and EMS has designed and implemented a statewide electronic prehospital run report program. In 1992, the Legislature of New Hampshire passed new emergency medical services statutes empowering FSTEMS to mandate the collection of prehospital run report data. The NH Emergency Services Reporting system (NHESR), formerly known as the Trauma and EMS Information System [TEMSIS], is the state's electronic data system, which has been in place since 2006 and was rebranded in 2021.

Hospital Data

FSTEMS maintains a trauma registry platform which is free for all facilities in the state to use. As data submission to the state is required, trauma hospitals are strongly encouraged to utilize this platform. Schema documents are available for third party vendors to develop the necessary data exchange functionality to allow for the upload of required information to the NH Trauma Registry. This functionality is developed at the trauma hospital's expense.

NH hospitals participate in the reporting of uniform hospital discharge abstract data on all admitted patients. The data are collected by the New Hampshire Hospital Association (NHHA) and the NH Department of Health and Human Services and analyzed to identify the number, type, and severity of injuries of patients admitted to hospitals with traumatic injuries.

Rehabilitation and Specialty Care Facilities Data

In 1994, the NHHA began collecting data from rehabilitation and other specialty health care facilities. This data set is similar to the hospital data and provides information regarding the number, type and severity of trauma patients admitted to these types of facilities.

II. Standards:

The statewide/system-wide performance improvement program focuses on the overall effectiveness of the trauma system, particularly whether there has been significant improvement in the care delivered to major trauma patients as a result of the operation of the trauma system. The Trauma Medical Review Committee will consider whether significantly more major trauma patients are being transported to and treated in trauma qualified hospitals than before; whether the performance of all system service providers is consistent with published performance standards and criteria; and whether the mortality and morbidity of major trauma patients is improving.

1. Guiding Principles:

The design of the statewide performance improvement program and its data collection and reporting system is guided by several principles. These principles are:

- a. The data collection systems used by the major providers of trauma service providers, the hospitals and prehospital agencies, will be the primary source for system-wide data. These facilities and agencies will routinely submit uniform system-wide data elements to FSTEMS. This process of data collection will ensure the highest degree of data consistency and the lowest amount of data entry redundancy.
- b. The statewide trauma system data collection program should collect only information from trauma system service providers that is appropriate and necessary to evaluate the system-wide delivery of trauma services.
- c. The data collection program should attempt to minimize the added costs and responsibilities related to the collection of new data from the trauma system service providers.
- d. The data program should utilize, wherever possible, currently available data and information which relates to or describes trauma patients.
- e. The program should only attempt to collect data that has a high potential for being

complete, accurate and descriptive.

2. *Data Collection Standards:*

A condition of active participation in the NH Trauma System is that all trauma-assigned hospitals will collect and submit data elements to FSTEMS on each trauma patient. The NH Trauma Registry includes hospital, prehospital and referring hospital data and has the ability to run reports on all required data elements. The NH trauma registry data dictionary contains the listing of all active and required elements in the NH trauma registry. All New Hampshire hospitals are encouraged to utilize the NH trauma registry as their data collection and reporting program.

Because the trauma system's performance improvement and medical review processes are continually evolving, data requirements are subject to modification, at least annually, based on the performance improvement recommendations of the Trauma Medical Review Committee.

In addition to aggregated trauma registry data, information that is available from other sources regarding or describing trauma patients will be collected, linked, analyzed and reported.

3. *Statewide Trauma Performance Improvement:*

The Division has been empowered to systematically collect data which will be provided to the TMRC to perform the following activities:

- a. Evaluate trauma system operations, including monitoring compliance with standards, availability of appropriate resources, maintaining confidentiality and periodic review of trauma facility standards.
- b. Evaluate patient care outcomes at the system level.
- c. Establish a process for documenting corrective action plans, problem re- evaluation and oversight.
- d. Recommend modifications of the standards of care in light of the results of system wide review.
- e. Review the trauma performance improvement programs of the trauma system providers.

New Hampshire Trauma System Plan Version 5.0

The Division has the authority to collect data from all trauma system service providers. Division staff may collect and link (where appropriate) motor vehicle crash reports, pre-hospital run reports, hospital discharge abstract data, trauma receiving facility registry data, rehabilitation facility data and medical examiner data. On an ongoing basis, the Division will collect more detailed data and information from the trauma receiving facilities. Patient confidentiality will be maintained in two ways. RSA 153-A:9 provides protection against judicial discovery of the records and actions of the Division. In addition, any and all patient identifiers will be purged from the data system after the necessary data linkages have occurred.

The following are examples of performance improvement reports that the Division could generate with all available data sources reporting. These reports include:

- a. Total incidence of traumatic injury treated by prehospital providers, emergency departments, and admitted to trauma system hospitals, compared to prior years
- b. The number and nature of traumatic deaths
- c. The type and severity of trauma injury
- d. The causes of injury
- e. The demographics of injury, age, sex, location, etc.
- f. System efficiency reports:
 - i. The evaluation and analysis of:
 - Times of injury as compared to times of treatment
 - Trauma patient injury assessment and scoring
 - Interfacility transfer information
 - Trauma patient identification, prehospital and hospital
 - ii. The results of standards enforcement:
 - Trauma team mobilization
 - Arrival of trauma team members
- g. Injury prevention initiatives and priorities
- h. The analysis of motor vehicle crash injuries, including restraint utilization

Hospital Specific Reports:

- a. Total number of traumatic injury admissions for all hospitals
- b. The number and nature of traumatic deaths of admitted trauma patients
- c. The type and severity of trauma injury
 - i. The cause of injury (E codes)
 - ii. The demographics of injury, age, sex, residence, date
- d. The financial impact of traumatic injury
 - i. Total charges by financial classification
- e. Hospital disposition/outcome

Emergency Department Reports:

- a. Total number of traumatic injury ED encounters for all hospitals
- b. The type and severity of trauma injury
 - i. The demographics of injury, age, sex, residence, date
 - ii. The financial impact of traumatic injury
 - iii. Total charges by financial classification
- c. ED Disposition/Outcome

Rehabilitation Reports:

- a. Total number of traumatic injury admissions for all rehabilitation facilities
- b. The number and nature of traumatic deaths of admitted trauma rehabilitation patients
- c. The financial impact of traumatic injury
 - i. Total charges by financial classification
- d. Patient disposition

Prehospital Reports:

- a. Call for service to dispatch time
- b. Response times
- c. Nature of field assessment & treatment

- d. Use of field triage criteria and standards
- e. Nature of transport decisions
- f. Scene time
- g. Transport time
- h. Over and under triage rates
- i. Air medical transport utilization
- j. Interfacility transfer transports

Medical Examiner Reports

- a. Cause of death
- b. Circumstances of death

Motor Vehicle Crash Reports

- a. Location and time of accident
- b. Conditions causing crash and circumstances of crash scene
- c. Nature and severity of vehicular damage
- d. Position and activities of driver, occupants

4. Implementing Trauma Care Improvement Initiatives:

After analysis of the data, the TMRC should recommend to the Emergency Medical and Trauma Services Coordinating Board remediation in instances where the performance of EMS providers does not meet the criteria and standards of the trauma system. In addition, the Division may consult directly with hospitals in the NH Trauma System to develop plans to remediate any deficiencies. The TMRC will advise the NH Medical Control Board on changes to prehospital protocols and shall undertake efforts to conduct educational programs to enhance trauma care.

III. Trauma Facility and EMS Provider Trauma Performance Improvement Program Guidelines:

The NH Trauma Plan requires all designated trauma hospitals to conduct a trauma performance improvement and patient safety (PIPS) program. Other acute care hospitals in NH and EMS agencies are strongly encouraged to conduct trauma performance improvement. The specific design and nature of the facility and service provider performance improvement programs is an institutional or service provider decision.

The trauma hospital performance improvement program should be administered under the auspices of the hospital's trauma service and although integrated with the hospital's overall quality improvement program, should be an independent activity. The Clinical System Section of the NH Division of Fire Standards and Training and EMS is available to assist hospitals and EMS agencies develop trauma PI programs.

1. Trauma Facility Performance Improvement Programs and Patient Safety:

The NH Trauma Plan requires all trauma-designated hospitals to conduct PIPS review of certain criteria. The Trauma Medical Review Committee will periodically review the mandatory standards for trauma designation review. These criteria may be found in Appendix F. Just as important, the NH Trauma Plan strongly encourages hospitals to conduct trauma PIPS review on selected criteria that are meaningful for their facility.

The following are recommendations for Trauma Facility Performance Improvement Programs. The trauma facility performance improvement program may address some or all of the following:

- a. The adherence to treatment protocols in the:
 - i. Emergency department, and
 - ii. All other departments treating trauma patients.
- b. Evaluation of personnel availability in accordance with:
 - i. System criteria and standards, and
 - ii. Facility verification level
- c. Evaluation of the process of patient management:

- i. Timeliness of response and therapy
 - ii. Appropriateness of length of stay
 - iii. Appropriateness of procedures performed, and care provided.
- d. Evaluation of patient outcome:
- i. Efficacy of specific treatments
 - ii. Complications
 - iii. Physician performance compared to an established norm
 - iv. Patient morbidity, mortality, disability, and the effect of rehabilitation

FSTEMS has the responsibility and authority to periodically review the PIPS documentation of designated hospitals.

2. Trauma Registry Data Submission:

All designated trauma hospitals in the State shall submit data to the NH Trauma Registry. The submission of data is a condition of facility designation. The NH Trauma Registry is hosted by the Division of Fire Standards and Training and Emergency Medical Services, maintained by ImageTrend®, and is free for all New Hampshire hospitals to utilize. The state trauma registry can be found at <https://www.nhcsregistry.org>.

The statewide trauma registry is National Trauma Data Bank (NTDB) compliant, collecting all nationally required elements, including Trauma Quality Improvement Program (TQIP) fields, and allowing for files to be submitted to the NTDB. The State trauma registry also allows for collection of all facility outcome and process improvement (PIPS) fields in confidential format. While direct data entry is recommended and preferred, there are also options for data uploading from third party registries into the State's registry.

The state inclusion requirements, required data elements, accepted field values, and recommended data submission schedule are all listed in the NH Trauma Registry Data Dictionary which is available on the Division website at <https://www.nh.gov/safety/divisions/fstems/ems/index.html>. The statewide data set is aligned with the National Trauma Data Standard from the NTDB and is reviewed and edited annually in August for release the following January.

3. Prehospital Trauma Performance Improvement Programs:

The data elements collected on prehospital electronic patient care reports (ePCR) through NHESR may be sufficient to inform EMS agencies and prehospital providers on their trauma performance. However, their role in statewide, system level, performance improvement is limited as the data is largely descriptive.

If a trauma program were to start a prehospital performance improvement program, the following areas could be investigated through the use of NHESR records:

- a. Response times
- b. Evaluation of field assessment, triage, treatment, and transport decisions
- c. Adherence to Statewide treatment protocols
- d. Evaluation of patient outcome
- e. Use of online medical control

SECTION TWO: CLINICAL COMPONENTS:

Prehospital Trauma Services:

I. Description:

The delivery of prehospital trauma care to both adults and children is a major aspect of the NH Trauma System. The EMS system works in a coordinated manner with other components of the trauma system. Prehospital trauma care includes the following sub-components:

- Public Education
- Communication
- Trauma Triage and Transport
- Medical Control and Medical Direction
- Aeromedical Services
- Human Resources

II. Prehospital Trauma System Sub-Components:

Public Education:

Description: Prehospital providers contribute to the overall trauma system public education programs by facilitating public understanding of the nature and significance of a trauma system including what the trauma system is supposed to do; how to easily access the trauma system in times of need; and how to perform appropriate citizen assistance and interventions to trauma patients. The training of citizens in the appropriate use of cardiopulmonary resuscitation (CPR), first aid, and bleeding control (e.g. Stop the Bleed®) is of particular importance. The first medical contact that trauma patients have with the trauma system is usually with pre-hospital personnel. Public perception correctly identifies the initial provision of life-saving care and assistance as that provided by fire/rescue or ambulance services. Public education programs are related to and complement trauma injury prevention programs.

Standards: The prehospital focus of trauma system public education programs deals with the purpose and significance of the trauma system, public access and citizen appropriate treatment activities such as CPR, first aid, and Stop the Bleed® assistance. Educational programs should target groups or individuals at high risk for injury. Specific focus should be placed on changing personal behavior that is injury-inducing such as the failure to use car seat belts and restraints, child restraints, motorcycle and bicycle helmets. New Hampshire benefits from public education programs that specifically address recreational and water safety and firearms safety training. Since unintentional injury is the leading cause of death for the 1-44 age group throughout the United States^[5], direct attention should be placed on public education programs targeted toward this age group.

The utilization of prehospital personnel, such as emergency medical technicians and paramedics as well as other clinical care personnel, in the presentation of public education programs has the potential for producing excellent results. It is recommended that EMS agencies work with their local medical resource hospital to coordinate these activities.

Communication

There are four aspects to prehospital communications: citizen access to the emergency medical system to report the discovery of an injury and associated citizen assistance instructions by dispatch personnel, communication from the dispatch center to the EMS service provider, communication between EMS providers, the receiving hospital or medical control facility, and communication to and from helicopter transport services.

1. System Access:

Description: System access is defined as the ability to rapidly and effectively report a medical emergency to the proper authorities which will culminate in the dispatch of appropriate emergency services. The most effective access system is 9-1-1. In addition, this element includes the process of advising citizens to take appropriate actions to benefit the injury patient. The NH Emergency Communications system effectively addresses these needs.

Standards: See Appendix D for links to a detailed description of the NH Emergency Communications system standards.

Dispatcher Communication with Emergency Medical Services:

Description: Dispatcher communication is the ability of a dispatch center to rapidly communicate with EMS service providers. The center alerts the service of the nature of the emergency and directs the service to respond to the emergency situation. This activity also includes the EMS agency's ability to communicate from the scene of the injury with the dispatch center to request additional assistance or information.

Standards: Each emergency medical service provider in the state of New Hampshire should be dispatched by a dispatch center that has rapid and accurate ability to communicate with EMS agencies in its coverage area. This communications ability shall be available 24 hours-a-day, 7 days-a-week. Each EMS agency and provider shall have the ability to rapidly and easily communicate with its dispatch center from the scene of the injury and en route to or from the scene.

2. Communication between Emergency Medical Services and Medical Facilities:

Description: Communication between EMS services and receiving hospitals refers to the ability of the EMS service provider to communicate with his/her receiving or medical control hospital to provide information concerning the patient's condition and to receive instructions. FirstNet was deployed in New Hampshire in 2022. Other tools for communications between EMS and hospitals, including Twiage (Twiage Systems LLC, New York, NY) and Pulsara® (CommuniCare Technology, Inc., Bozeman, MT) are being used by some of the trauma hospitals in New Hampshire as well as FirstNet. Assessment of the capabilities of all of these platforms has been mixed, depending on the geographic area in the state where they are being utilized.

Standards: Rapid and accurate two-way communication between EMS service providers and medical control should be assured. Licensed emergency medical service vehicles are required by NH law to be adequately equipped with communication equipment.

3. Aeromedical Communication:

Description: Aeromedical communication refers to the ability of an EMS service provider or hospital to request emergency air transport and the ability of the aeromedical service to maintain continuous communication with the EMS service or the hospital.

Standards: EMS services and hospitals must have radio systems that enable communications with aeromedical services. EMS services and hospitals must have a process in place to request air medical services and to communicate with aircraft to support safe field operations.

Trauma Triage and Transport:

Description: The decision regarding where the acutely injured trauma patient will receive definitive care is based on an assessment process performed by prehospital field personnel. This would include application of the NH EMS trauma triage and destination protocols. Consultation with online medical control personnel may be initiated at the discretion of the EMS provider.

The NH EMS trauma triage protocol is regularly updated as part of the overall state EMS protocols. Multidisciplinary trauma stakeholders, including members of the Trauma Medical Review Committee, participate in the review and revision of NH EMS Protocols that refer to traumatic injury. These protocols are reviewed by the NH EMS Medical Control Board and approved protocols go through a formal roll-out process. This process is on a biennial basis.

Standards: According to the current Trauma Triage protocol, each person accessing the EMS system who has sustained an injury requiring transport should be transported to the closest facility possessing the capability of providing the level of care to meet that patient's needs. In the setting of minor or even moderate injury the closest appropriate hospital may be the closest acute care hospital. For a patient with actual or potential major trauma the closest appropriate facility may be a trauma hospital that has demonstrated that it is specially qualified for trauma care, even if another acute care hospital might be physically closer.

Prehospital personnel shall apply triage standards:

1. To determine where the injured patient should be transported
2. To alert the trauma facility of the pending arrival of a severely injured patient
3. To determine whether helicopter response is appropriate

Providers shall follow the current Trauma Triage protocol. Future changes with this protocol will be made according to evidenced based medicine and theory and will meet or exceed current standards of trauma care. Potential exceptions to this standard may occur. It is the responsibility of the provider to follow the most current New Hampshire Patient Care Protocols, use good clinical judgement, and contact medical control for further guidance if necessary.

Medical Control and Medical Direction:

Description: Resources related to on-line medical direction can be found in Appendix D.

Standards: The NH Trauma System, as a component of the NH Division of Fire Standards and Training and EMS, provides for appropriate online medical control and standardized protocols for the prehospital management of major trauma patients.

Prehospital providers should activate the trauma system in conjunction with online medical control prior to patient arrival. Activation should be based on uniformly adopted field triage criteria and guidelines as well as the judgment of emergency department staff. Prehospital providers should request a trauma team activation as part of their pre-arrival report for those patients that meet the appropriate criteria.

Every NH EMS agency is required to have a medical resource hospital which agrees to provide medical direction. Prehospital medical direction should be provided by physicians qualified in emergency medical services in conjunction with approved EMS protocols. Pre-hospital medical directors should assist in the facilitation of quality management programs, consistent with current NH EMS Rules.

Aeromedical Transport:

Description: Aeromedical transport is the provision of critical care equipped air transport (flight) services to major trauma patients. The service is appropriate when the time to definitive care for seriously injured patients is prolonged because of distance, or (when) the appropriate level of prehospital resources is not available.

Standards: Aeromedical transport services are a critical component of the NH Trauma System, necessary because of the geographical area of the state, the adverse impact that long ground transport times have on major trauma patients and the benefit of direct access to definitive trauma care.

Transfers from ground ambulance to aeromedical transport shall occur at the closest appropriate landing site. In cases where a hospital heliport is used strictly as the ground to air ambulance transfer point, no transfer of care to hospital staff is implied or assumed. If clinical staff (doctor, nurse, paramedic, etc.) from said hospital initiates any type of care, (assessment, etc.), the hospital shall provide initial stabilization prior to transfer to the air ambulance crew for transport, per the provisions set forth in EMTALA^[6].

The provision of scene helicopter response can, in the appropriate circumstance, significantly reduce the time from onset of injury to definitive care. EMS agencies must ensure that their providers are competent in the procedures and protocols for appropriate identification of patients (as found in NH EMS protocols) needing aeromedical transport. Prehospital services must also ensure the availability of personnel who are competent in assisting aeromedical personnel in safe landings and take offs.

Air medical transport units will have a structured air medical safety educational program in place to train EMS personnel in safety practices when interfacing with air medical transport. Air medical transport programs will have a structured air medical education curriculum for medical crew members and an ongoing performance improvement and patient safety program.

In addition to helicopter scene flights for trauma, it must be emphasized that air medical transport also plays a significant role in the inter-facility transport of trauma patients who are transferred from a community hospital to tertiary care.

Human Resources:

Description: This section deals with the type, qualifications and number of prehospital personnel providing service to major trauma patients. This section also deals with the trauma related training of prehospital personnel. Prehospital trauma training programs generally use a standardized curriculum for each level of EMS personnel. Professional training of prehospital personnel involves initial training, continuing education and refresher courses that are regularly available to all emergency medical services personnel.

Standards: There are a variety of different models of providing prehospital care in New Hampshire. Emergency Medical Services are provided by full-time career EMS personnel in many areas, particularly urban, small cities and suburban areas, while there are a substantial number of volunteer providers in rural areas. There are also variations in the level of EMS providers: Emergency Medical Responder (EMR), Emergency Medical Technician (EMT), Advanced Emergency Medical Technician (AEMT), and Paramedic. Decisions regarding the provision of EMS to a community are made at the local level. There

is no statewide mechanism to identify the optimal number and level of EMS providers in any given area, nor is there a mechanism to facilitate optimal staffing or positioning of vehicles.

Prehospital trauma training programs will use a national standardized curriculum for each level of EMS personnel. Professional training of prehospital personnel is based on standardized curricula focuses on assessment, patient care and transportation, proper equipment use and maintenance, and personal health and safety. Stand-alone trauma courses such as Prehospital Trauma Life Support (PHTLS), International Trauma Life Support (ITLS), and Pediatric Education for Prehospital Providers (PEPP) are a desirable addition to trauma education in NH.

The NH Trauma System advocates for EMS personnel to participate in these educational programs. These programs should be routinely monitored and evaluated and must be taught by qualified instructors. All initial EMS education, refresher training and stand-alone courses regarding trauma should include considerations for the assessment and treatment of injured children.

Hospital Trauma Services:

I. Description:

This section describes the role of hospitals in the NH Trauma System and the standards and process of participation. It is recognized that all NH acute care hospitals provide trauma care services to persons incurring a traumatic injury. It is expected that any hospital with emergency service capability will be capable of providing stabilization of adult and pediatric trauma patients during the acute and emergent course of their injury. Based on the patient's level of acuity and the capability of the hospital, the patient may need to be transferred to a facility with a more comprehensive capability of care. This transfer must be done in the timeliest manner possible.

The NH Trauma System encourages relationships between hospitals providing regional trauma care (i.e., a Level I or II trauma hospital) and community/critical access hospitals, particularly rural hospitals. Improved communications between hospitals can result in a quicker process for patient transfer.

II. Standards:

A. Overall System Design:

The design of the NH Trauma System is based on the concept of inclusion of all providers of care to trauma patients within the system. All of the hospitals in New Hampshire have historically provided care to major trauma patients, including children, although the volume of admissions has varied from facility to facility. The design of the system is to encourage the active participation of all New Hampshire hospitals in the system.

The goal of the system is to facilitate the treatment and admission of severely injured trauma patients to Level I or Level II trauma hospitals and the stabilization, resuscitation and rapid transfer of severely injured trauma from the local and rural trauma hospitals. Prehospital service providers will be directed to transport severely injured trauma patients to those hospitals with the verified capability to provide the appropriate level of trauma service. All hospitals regardless of the level of active participation in the NH Trauma System will be encouraged to participate in trauma system education and training programs.

B. Adult Trauma Facility Standards:

Level I: *This level requires verification by reviewers from the American College of Surgeons Committee on Trauma (ACS-COT).* A trauma hospital satisfying this level provides the highest level of care for patients with complex traumatic injuries that present directly to the hospital's emergency department or by Interfacility transfer. The hospital is a regional resource that treats a significant number of seriously injured patients and is responsible for outreach, accredited education and is committed to research in trauma.

Level II: *This level requires ACS-COT verification.* A trauma hospital that has the resources to provide a high level of care for patients with complex injuries. The hospital has essentially all the surgical specialty providers as a Level I, on call and promptly available 24/7. A Level II hospital is a regional resource that treats a significant number of seriously injured patients and is responsible for outreach and accredited education but is not required to perform research in trauma. A Level II hospital may transfer the most specialized of trauma patients to a Level I or specialty facility (e.g., burn center).

Level I and II trauma hospitals should assume a leadership role and be prepared to support the other components of the trauma system through education, coordination and performance improvement activities, and medical direction of prehospital personnel.

Level III: *This level trauma hospital has the option to be verified either by the ACS-COT or designated by the New Hampshire Department of Safety. All Level III hospitals will require ACS-COT verification as of 1/1/2026.* A trauma hospital that provides trauma care for a local catchment area. Full-time neurosurgical coverage is not a requirement for a Level III hospital. Some Level III trauma hospitals are able to care for complex trauma patients, but the expectation of most Level III facilities for major trauma patients is stabilization and prompt transfer to a Level I or Level II trauma hospital.

Level IV: *This level trauma hospital is designated by the New Hampshire Department of Safety.* A trauma hospital that provides 24-hour emergency services. This level of trauma hospital is expected to resuscitate, stabilize, and transfer major trauma patients to a higher-level facility. This facility will admit only those patients who are determined to have injuries that do not meet criteria for transfer.

Non-Designated Hospital: A hospital that has not received a trauma designation.

C. Role of out-of-state Trauma Hospitals:

As stated above, it is important to recognize that Level I and II trauma hospitals have the same set of surgical capabilities and are able to provide care for complex trauma patients in a similar manner. Ideally, patients would be transported to the closest most appropriate facility as described in the 2021 National Field Triage Guidelines^[7]. However, traumatic injury does not recognize borders. In certain cases, and depending on available resources, patients may need to be sent to a hospital outside of NH to receive appropriate trauma care. The current role of out-of-state specialty care facilities, such as Level I adult and pediatric trauma hospitals in Boston, Massachusetts and Portland, Maine, regional burn centers, and re-implantation facilities, will continue. The current volume of New Hampshire residents that incur significant burn injuries and re-implantation services is generally low.

- When NH residents are transferred to out-of-state facilities for specialty trauma care, the out-of-state facilities should be requested to provide data and information

detailing patient progress and outcome. This information should be provided to the referring facility to assist in the Performance Improvement Process, and to the statewide trauma quality management program

III. Process of Participation:

Five Guiding Principles of Trauma System Participation:

1. Major and severely injured adult and pediatric patients must be transported to and treated at hospitals that have the clinical capability to effectively treat the full extent of their injuries. Severely injured trauma patients require the services of organized trauma teams composed of qualified physicians and health professionals having appropriate equipment and supplies.
2. Inclusion of all hospitals as active participants in the trauma system. Historically, all NH hospitals with an emergency department have provided care to trauma patients. Each hospital will be designated according to its capability to provide trauma services
3. Hospitals should only admit trauma patients that are within the capability of the facility to provide definitive treatment. When this capability is exceeded by the patient's severity of injury, the hospital should transfer the patient to a higher-level facility.
4. Every acute care hospital should have at a minimum, the capability to stabilize, resuscitate and rapidly transfer major or severely injured trauma patients.
5. All hospitals have the opportunity to increase or enhance their capability to provide trauma services.

Steps in Trauma System Participation Process:

Step 1: Request for Participation

Hospitals that wish to participate in the NH Trauma System should contact FSTEMS to set up a needs assessment. This is a voluntary step, but it would be of benefit to a hospital wishing to be designated as a trauma hospital. While preparing to become a trauma hospital the Division and the TMRC will assist the hospital as needed.

Step 2: Decide on Level of Designation

The State of New Hampshire requires all trauma hospitals to have an adult *and* pediatric designation level. At a minimum, Level IV designation is required. Those seeking Level I or

II designation must go through ACS verification. Hospitals may voluntarily choose ACS verification or FSTEMS review for Level III designation until January 1, 2026. At that time, all Level III hospitals will be required to undergo ACS verification. Level IV designation is obtained through review by FSTEMS. Upon a successful verification by the ACS, the State of NH will then designate that trauma hospital accordingly. Until January 1, 2026, hospitals choosing to obtain ACS verification as an adult trauma hospital but not a pediatric trauma hospital will still need a site visit by the state for pediatric designation. This will be completed at approximately the same time as the ACS visit. After January 1, 2026, all hospitals would follow the National Pediatric Readiness Project's guidelines for pediatric readiness^[8].

Step 3: Complete Trauma hospital Application and Pre-Review Questionnaire (PRQ)

There is no statutory time limit for submission of an application for trauma hospital designation. However, hospitals applying for designation are strongly encouraged to submit the application six months prior to the desired review date, then submit the required attachments per the instructions in the application packet. For hospitals seeking adult only ACS reviews, a pediatric application should be submitted as soon as possible once the review date has been selected. As stated above, however, this will change as of January 1, 2026.

Step 4: Hospital Site Visit

The Site Visitation teams, to include at least a physician, a nurse, and a member of the FSTEMS division staff, will perform the following activities:

1. Visit the hospital and assess the hospital's capability to provide trauma services at the level requested by the hospital by using the Trauma hospital Criteria Checklist
2. Compile the results of the on-site assessment
3. Provide consultative assistance and information to the hospital and its medical staff

Step 5: Determination of Designation

Following the site visit at the hospital, the visitation team will review all documents submitted by the hospital. The visitation team will deliberate in closed session to discuss

the assessment and findings, including strengths, opportunities for growth, and deficiencies, and produce a confidential report outlining their findings with recommendations to the Commissioner of Safety. Based on this information, a recommendation will be made to the Commissioner of Safety for designation, and the hospital leadership will be notified of the decision. A formal report will be prepared and presented to the hospital no later than eight weeks from the date of the site review along with certification of designation.

Deficiencies

- One Type I deficiency or more than four Type II deficiencies will automatically prevent a hospital from becoming a designated trauma hospital
- Four or fewer Type II deficiencies, result in a provisional trauma hospital designation, and the need to either show proof of correcting the deficiencies within that 1 year or receive a focused site visit - whichever the designation sub-committee deems appropriate. The site review team may recommend a shorter time to correct deficiencies.

If approved, the Commissioner of Safety or his designee will authorize a level of participation for a period of up to three years from the review date. The Commissioner or his designee will issue a document to the hospital with notification to prehospital medical control physicians and prehospital providers identifying the hospital's level of designation. If the hospital subsequently wishes to change its designation and participation status, the hospital can reapply at any time during its term.

Step 6: Appeals Process

Any hospital that does not agree with the recommendation level specified will have the option to appeal the findings of the site review to the NH Department of Safety's Bureau of Hearings for adjudication.

Prehospital Impact

Prehospital providers, in accordance with statewide EMS protocols and orders from medical direction, will be directed to preferentially transport major and severely injured trauma patients to the hospitals with capability to provide the appropriate level of trauma service.

Revocation of Designation

Any trauma hospital found to be out of compliance with the requirements of their designation level will be notified of the deficiency. Failure to take corrective steps to address the deficiency will incur the potential loss of designation. The Division and TMRC will determine appropriate timeframe to correct deficiencies. Hospitals that lose their designation for failure to correct deficiencies will be required to re-apply if active participation in the NH Trauma System is desired at a later date. Notice of the loss of designation will be communicated in writing to the hospital, Prehospital medical control physicians and prehospital providers.

Renewal of Designation

For renewal of designation, the trauma hospital requesting renewal will complete an application prior to expiration, to avoid a lapse in designation status. While there is no mandatory time frame for submission, it is recommended that the application be submitted six months in advance of the designation period's expiration date. Additionally, re-designation shall need to be approved prior to the expiration of the current designation.

IV. Inter Hospital Trauma Patient Transfer

Description: The interfacility transfer of major trauma patients will be necessary in those situations where the severity of the patient's injury exceeds the capacity of the initial receiving hospital and require expeditious transfer to a higher-level trauma hospital. While NH EMS trauma triage and air medical transport protocols are intended to route severely injured patients to the highest level of trauma hospital in the geographic area, this is not always feasible, and patients are transported to the closest hospital.

Standards: Interfacility transfer is enhanced by each trauma hospital adopting guidelines regarding (1) identification of patients who will benefit from transfer and (2) how and when a patient will be transferred. The process of transfer will be in accordance with requirements of EMTALA and HIPAA^[9]. In addition to the prehospital triage criteria discussed earlier, hospital clinicians should consider the following list of examples of physiological, anatomical, and other criteria that identify patients at high risk of dying or permanent disability. Depending on the hospital's level of capabilities, such trauma patients should be considered for prompt transfer.

Adult and Pediatric Transfer Criteria:

- Penetrating injury or open fracture of the skull
- Glasgow Coma Score < 12 or lateralizing neurological signs
- Deterioration in GCS of 2 or more
- Significant spinal fracture or spinal cord deficit
- Major chest trauma:
 - Torn thoracic vessel or suspected mediastinal vascular injury
 - Penetrating wounds to the central chest area (i.e., cardiac injury)
 - Flail segment
- Major abdominal vascular or visceral injuries
- Unstable pelvis fractures
- Fracture or dislocation with loss of distal pulses
- Open and/or multiple long bone fractures
- Burns:
 - Greater than 20% TBSA
 - Circumferential
 - Hands, genital, face
- Extremes in ages
- Trauma with significant comorbidities, such as:
 - Coronary artery disease
 - COPD
 - Type I diabetes mellitus
 - immunosuppression
 - Extremes in age

V. Telemedicine

In consideration of telemedicine in specialty surgical care, it is recognized that trauma care and telemedicine are evolving. A trauma telemedicine program addresses exceptions to the 24/7 accessibility to particular specialists (such as neurosurgeons or

orthopedic surgeons) by activating a trauma telemedicine specialist^[10]. The process will be collaboration between the trauma surgeon and the telemedicine consultant to determine whether the patient has an injury that requires transfer to another facility, or if it is safe to admit the patient to the originating hospital with observation by the telemedicine specialist in collaboration with medical staff at the originating hospital.

Elements to be considered would be:

- There is video technology and imaging transmission to enable a real-time consultation with an applicable specialist, such as a neurosurgeon.
- There is a formal trauma telemedicine program in which the hospital commits to the practice of admitting patients in consultation with the specialist as medically indicated.
- Trauma surgeons, intensivists, and hospitalists at the hospital fully cooperate with the telemedicine program.
- A performance improvement and patient safety process specific to the trauma telemedicine program is in place.

VI. Pediatric Facility Standards

Seriously injured children present a physiological complexity that is different than that of adults. Medical providers must be diligent in preparations to effectively deal with seriously injured children, despite the infrequency of such events. A regionalized approach to pediatric trauma care is sensible, but geographical access to such resources in NH must be considered. Rural hospitals play an important role in the NH Trauma System. All hospitals including those with limited pediatric capability will be called upon to resuscitate severely injured children.

Although all acute care hospitals must be capable of resuscitation and stabilization, comprehensive pediatric services are limited to a few regional pediatric hospitals. As such, an important part of the pediatric trauma system is the development of well-defined written guidelines for the rapid identification of injured children exceeding a hospital's capability and for streamlining the process for transfer of pediatric trauma patients to facilities capable of providing comprehensive pediatric care.

Pediatric Trauma Service Component:

According to NH administrative rule Saf-C 5901.78, a pediatric patient is “a person between 1 and 18 years of age ^[11].” In order to encourage maximum participation, there will be four levels of designation for pediatric trauma service hospitals in NH. The following descriptions provide a global overview of the desired roles of the four levels. For more specific information regarding the resources required of the four levels refer to the pediatric hospital standards. As of January 1, 2026, these designation levels will no longer be awarded by FSTEMS. Hospitals with trauma designation will be subject to pediatric readiness guidelines from the National Pediatric Readiness Project.

Pediatric Level I: *This level requires ACS-COT verification.* This hospital provides the most comprehensive level of care and has a pediatric intensive care unit. The facility will be capable of providing comprehensive specialized pediatric medical and surgical care to all acutely ill and injured children. The Level I Pediatric Trauma Hospital will be responsible for serving as a regional referral center for the specialized care of pediatric patients, or in special circumstances will provide safe and timely transfer of children to other facilities for specialized care.

Pediatric Level II: *This level requires ACS-COT verification.* This hospital will have a defined separate pediatric inpatient service and a department/division of pediatrics within the medical staff structure. A Level II facility will be capable of identifying those pediatric patients who are critically ill or injured, stabilizing pediatric patients (including the management of airway, breathing, circulation and disability), and will also provide ongoing inpatient care or appropriate transfer to a Level I pediatric critical care center

Pediatric Level III: *This level is designated by the NH Department of Safety.* This hospital will be capable of identifying those pediatric patients who are critically ill or injured, stabilizing pediatric patients (including the management of airway, breathing and circulation), and will have clearly defined capabilities for the management of minor to moderate pediatric inpatient problems.

Pediatric Level IV: *This level is designated by the NH Department of Safety.* This hospital will be capable of identifying those pediatric patients who are critically ill or injured, stabilizing pediatric patients (including the management of airway, breathing and circulation), and

providing appropriate transfer to a definitive care facility. A Level IV hospital will have limited pediatric inpatient admission capability for pediatric trauma.

The minimum level of pediatric capability for any hospital assigned within the NH Trauma System is a Pediatric Level IV.

VII. New Hampshire Trauma Hospital Checklist

The checklist is intended to serve as a checklist of the standards required specifically for Level III and IV adult trauma hospitals. These standards reflect what is required by the ACS-COT in the 2014 and 2022 standards documents outlining optimal care for trauma patients. Active trauma hospitals within the NH Trauma System may use this section to continually verify that they meet the requirements of the level of designation currently held. Non-designated hospitals considering active participation in the NH Trauma System should use this section as a self-assessment of their ability to meet the requirements, or in which areas they need to improve to successfully meet the requirements.

The checklist can be found in Appendix F. Pediatric service requirements are found along with equipment requirements in the last two sections of the checklist.

Pediatric equipment requirements listed in the checklist do not originate from ACS guidelines; they are based on a set of collaborative guidelines originally published in 2009 and updated in 2018 by the American Academy of Pediatrics, the American College of Emergency Physicians, the American Nurses Association, and the EMS for Children Innovation and Improvement Center. In addition, the requirement for pediatric readiness is referenced in Section 5.10 of the ACS-COT 2022 standards document^[12].

APPENDIX A: MANDATORY PERFORMANCE AND PATIENT SAFETY CRITERIA

The following measures must be evaluated by the PIPS program at all New Hampshire trauma hospitals. This list is current as of the printing of this manual; however, the most up-to-date PIPS program criteria can be found in the NH Trauma Data Dictionary:

<https://www.nh.gov/safety/divisions/fstems/ems/index.html>.

1. The criteria for graded activation are clearly defined by the trauma hospital and continuously evaluated.
2. For the highest level of activation at a Level I or II hospital, the trauma surgeon is present within 15 minutes (time called to arrival) 80% of the time when requested. Compliance of the surgeon's presence in the emergency department should be monitored.
3. For the highest level of activation at a Level III or IV hospital, the trauma surgeon is present within 30 minutes (time called to arrival) 80% of the time, when requested. Compliance of the surgeon's presence in the emergency department should be monitored.
4. Trauma deaths are systematically reviewed for quality of care and assigned to one of the following categories: preventable, potentially preventable or non-preventable.
5. Document the appropriate timeliness of the arrival of anesthesia services.
6. Evaluate operating room availability and delays.
7. Discrepancies in diagnostic imaging interpretation for trauma are monitored.

APPENDIX B: APPLICABLE STATE TRAUMA LAW

TITLE XII PUBLIC SAFETY AND WELFARE

CHAPTER 153-A EMERGENCY MEDICAL AND TRAUMA SERVICES

Section 153-A:8

This describes the makeup of the Trauma Medical Review Committee (TMRC). It includes what the membership consists of, the respective terms of office and how members are appointed, and the responsibilities of the committee.

It can be found at the following:

<https://gencourt.state.nh.us/rsa/html/XII/153-A/153-A-8.htm>

APPENDIX C: NEW HAMPSHIRE TRAUMA REGISTRY

The NH Trauma Registry is based on the ImageTrend® Patient Registry™ platform. It is a multi-disciplined registry system used to collect and analyze information needed to evaluate the effectiveness of the health care system it is intended to support. It is a database driven Web-based application which will allow authorized users to access this information securely from any location at any time.

The platform supports the following:

- XML file formatting, for data interchange between third party or privately-owned trauma registries and the NH Trauma Registry
- HL7 interface for linkage of EMS data to trauma registry records
- A complete, dynamic set of validation rules which are updated both regularly and as needed
- Support of dynamic forms for data collection and reporting, as well as a comprehensive system of analytics
- Incorporation of performance improvement and patient safety (PIPS) activity to support peer review monitoring, as well as patient safety taxonomy to allow benchmarking of performance improvement measures and align with a hospital's quality programs
- Monitoring of key performance indicators (KPI), including cause of injury (COI), mechanism of injury (MOI), and injury severity scoring (ISS) through an interactive centralized dashboard
- Fully supports transfer of data to the American College of Surgeons' Trauma Quality Improvement Program (TQIP) and to the National Trauma Data Bank (NTDB)

Further information can be found at <https://www.ImageTrend.com/solutions/patient-registry>

APPENDIX D: ADDITIONAL RESOURCES

1. Information about the NH Emergency Communications (9-1-1) system can be found at the following:
 - <https://www.desc.dos.nh.gov/about-us>
 - <https://www.desc.dos.nh.gov/our-services/911-call-taking-operations>

2. Resources for on-line medical direction can be found at the following:
 - <https://emscimprovement.center/education-and-resources/toolkits/medical-direction-toolbox/>
 - <https://www.nh.gov/safety/divisions/fstems/ems/advlifesup/patientcare.html>

APPENDIX E: REFERENCES

1. [Leading Causes of Death Visualization Tool](#)
2. [Fatal and non-fatal cost of injury](#)
3. [Accidental Death and Disability: The Neglected Disease of Modern Society](#)
4. [What is Public Health?](#)
5. [Leading Causes of Death, Ages 1-44](#)
6. [Emergency Medical Treatment and Labor Act \(EMTALA\)](#)
7. [2021 National Field Triage Guidelines](#)
8. [National Pediatric Readiness Project](#)
9. [Health Insurance Portability and Accountability Act \(HIPAA\)](#)
10. [Telemedicine in Trauma](#)
11. [NH EMS Administrative Rules](#)
12. [Resources for Optimal Care of the Injured Patient \(2022 Standards\)](#)

APPENDIX F: DESIGNATION CHECKLIST

Definitions for the following tables:

- **Promptly Available:** For a Level III or IV trauma hospital, the highest level of trauma team activation, providers may respond on an on-call basis, but must meet the following conditions:
 - Trauma Surgeon - The maximum allowable time is 30 minutes (tracked from patient arrival in the ED) with 80% compliance tracked by the PIPS program.
 - For all other trauma team members - in all trauma hospital levels the maximum allowable time of arrival for members of the trauma team is 30 minutes from activation.
 - For other providers that are required by the hospital standards to be promptly available, but are not members of the trauma team, promptly available is defined as arrival within 30 minutes of consultation by the trauma team leader.
 - While the PIPS program is required to monitor timely arrival of the anesthesia provider, monitoring of other medical providers is not mandatory (but is encouraged). Recurring problems regarding prompt response of providers must be addressed in the PI process.

- **Mandatory:** This is a mandatory requirement for the trauma hospital
- **Preferred:** This criterion is not mandatory, but is strongly encouraged
- **Not Mentioned:** These criteria don't fall into the categories of being either essential or desired, but if it is available and fulfilled it ultimately benefits the patient

Criteria	Mandatory	Preferred
<i>Trauma Service</i>		
Hospital has the written commitment of the institutional governing body and the medical staff to be an assigned trauma hospital	III/IV	
There is a Performance Improvement and Patient Safety (PIPS) Program. This program requires participation from the following: general surgery, orthopedic surgery, neurosurgery (if applicable), pediatrics, emergency medicine, anesthesiology, administration, and nursing services	III	IV
Hospital has an organized trauma service that has formal responsibility for the management and coordination of the care of multiple-system or major injury patients	III	IV

New Hampshire Trauma System Plan Version 5.0

There are guidelines for the initial triage of trauma patients	III/IV	
Hospital has written, well defined guidelines for the transfer of trauma patients to other facilities	III/IV	
Trauma team activation criteria are clearly defined under guidance of the NH EMS Trauma Triage protocols for the initial triage of both adult and pediatric patients	III/IV	
Published on call schedules are maintained for surgeons, neurosurgeon (<i>if applicable</i>), orthopedic surgeons and other specialists	III	
Hospital complies with NH EMS protocols regarding air medical transport	III/IV	
The hospital has telephone consultation with a physician who is board certified in pediatrics or pediatric emergency medicine, available 24 hours a day	III/IV	
<i>Trauma Medical Director</i>		
There is a physician Trauma Medical Director	III/IV	
The director is a board-certified general surgeon	III	
The director is a board-certified surgeon or emergency physician with demonstrated competence in trauma care	IV	
The trauma medical director is current in ATLS and PALS or APLS for pediatric patients	III/IV	
The director participates in the instruction of trauma surgeons and other providers	III	
The director is responsible for the trauma PIPS Program	III/IV	
The director has administrative authority to evaluate trauma team members and provide ongoing education services	III/IV	
Criteria	Mandatory	Preferred
<i>Trauma Teams</i>		
The trauma service has an organized adult and pediatric trauma response	III/IV	
The trauma response team is directed by a general surgeon or emergency physician	III	
Written guidelines for the composition and activation of the trauma team are in place	III/IV	
A record of trauma activations will be maintained	III/IV	
The highest level of activation requires the participation of a general surgeon.	III	
<i>Trauma Coordinator/Trauma Program Manager</i>		
There is a trauma coordinator. This may be the same person for adults and pediatrics.	III/IV	
The trauma coordinator is actively involved in clinical activities-establishing protocols, monitoring care and assisting trauma staff	III/IV	
The trauma coordinator participates in the education of ED clinical staff and prehospital providers	III/IV	
The trauma coordinator participates in activities such as protocol design, data collection, analysis, and reporting	III/IV	

New Hampshire Trauma System Plan Version 5.0

The trauma coordinator participates in performance improvement activities, developing audit filters , audits and case reviews	III/IV	
The trauma coordinator is responsible for the trauma registry	III/IV	
<i>General Surgery</i>		
If the surgeon participates in the trauma team, they are board certified or eligible or is an ACS fellow and is credentialed to practice in the facility.	III	IV
The surgeon meets trauma credentials	III	
The general surgeon is on call and promptly available	III/IV	
<i>Neurosurgery</i>		
If Neurosurgeons are involved in the care of trauma patients, then those Neurosurgeons are board certified or eligible and are credentialed to practice in the facility	III	
The facility has a written plan on how traumatic brain injury patients are assessed, treated and/or transferred, with written transfer agreements in place.	III	IV
Criteria	Mandatory	Preferred
<i>Orthopedic Surgery</i>		
If Orthopedic surgeons care for trauma patients, they are board certified or eligible and are credentialed to practice in the facility.	III	IV
An orthopedic surgeon is on call and promptly available	III	
An orthopedic surgery liaison to the PIPS program is designated	III	
Level III trauma hospitals must have the availability and commitment of Orthopedic surgeons	III	
<i>Emergency Medicine</i>		
The Emergency Department is staffed by board certified physicians and credentialed to practice in the facility	III	IV
The emergency physician is in-house 24 hours a day	III	IV
The emergency department is staffed in-house 24 hours a day by a physician or physician assistant or nurse practitioner with a full-time commitment to emergency medicine.	IV	
All emergency physicians must have taken ATLS at least once and have either current ATLS certification or have eight (8) hours of trauma CME's per year	III/IV	
Mid-level providers providing ED coverage must have taken ATLS at least once. A mid-level provider providing sole ED coverage in a Level IV hospital, the provider must have current ATLS and PALS certification	III/IV	
An ED provider is a designated member of the trauma response team	III	
There is a designated physician director.	III	IV
An Emergency Medicine Liaison to the PIPS program is designated	III	IV

New Hampshire Trauma System Plan Version 5.0

Anesthesiology		
Anesthesiologists who care for trauma patients are board certified or eligible	III	IV
There is an anesthesiologist on call and promptly available 24 hours a day	III	IV
An anesthesiology liaison to the PIPS program is designated	III	
Surgical Subspecialties <i>On call and Promptly Available</i>		
Hand Surgery		
OB/GYN Surgery		
Ophthalmic Surgery		
Oral/Maxillofacial Surgery		
Plastic Surgery		
Thoracic Surgery		
Urologic Surgery		
Pediatric Hospitalist/Pediatrician	III	IV
There is a clearly identified process utilized by the ED or Trauma service to alert the above listed specialists to respond* <i>*If not available there must be transfer guidelines in place</i>	III	IV
Non-Surgical Subspecialties <i>On call and Promptly Available for Consultation</i>		
Cardiology		
Gastroenterology		
Infectious disease		
Internal Medicine/Family Practice	III	IV
There is a clearly identified process utilized by the ED or Trauma service to alert the above listed specialists to respond	III	IV
Emergency Department Personnel		
Registered Nurses are immediately available in the Emergency Department.	III	
Registered Nursing personnel must hold current TNCC/ATCN certification or show evidence trauma education annually.	III	IV
If Paramedics are utilized in the ED, they must hold current PHTLS or ITLS or show evidence of trauma education	III	IV
The hospital has the capability and equipment for pediatric resuscitation.	III	IV
Registered Nurses hold current ENPC/PALS certification or show evidence of current pediatric trauma education annually.	III	IV
Paramedics, if utilized in the ED hold current PALS certification or show evidence of current pediatric trauma education annually.	III	IV
Operating Room Personnel		
OR staff are on call and promptly available	III	

New Hampshire Trauma System Plan Version 5.0

There is a documented method for prompt mobilization of consecutive OR teams for additional trauma patients.		III
Registered nurse available in OR during surgery.	III	IV
<i>Post Anesthesia Recovery Unit Personnel</i>		
Registered Nursing and other essential personnel are on call and promptly available 24 hours a day	III	
<i>ICU Personnel</i>		
There is a designated surgical director of the ICU	III	
The ICU is staffed by physicians who are board certified or board eligible in critical care, pulmonary medicine, cardiology or surgery.		III
An ICU physician is on call and promptly available 24 hours a day.	III	
There is an ICU physician liaison to the trauma PIPS program.	III	
ICU nurses who care for trauma patients must show current TNCC/ATCN or evidence of trauma education annually.	III	
The ICU is staffed by registered nurses with evidence of critical care training per hospital guidelines.	IV	
A respiratory therapist is on call and promptly available.	III	
Criteria	Mandatory	Preferred
<i>Other Trauma Related Programs</i>		
The hospital has acute hemodialysis capability or a transfer agreement with a dialysis center	III	
The hospital has written guidelines for burn center referral and transfer criteria	III/IV	
<i>Radiological Services</i>		
Radiologists are promptly available, in person or by teleradiology, when requested, for the interpretation of radiographs, performance of complex imaging studies.	III	IV
The hospital has a radiology technologist on call and promptly available 24 hours a day	III/IV	
There is a CT technologist on call & promptly available 24 hours a day	III	IV
A radiology liaison to the PIPS program is designated		III
<i>Rehabilitation Services</i>		
The hospital has acute rehabilitation services within its facility	III	
The hospital has patient and family/social services.	III	
There are adult child abuse policies and procedures	III/IV	
<i>Clinical Laboratory Services</i>		
Clinical laboratory services are available 24 hours a day	III/IV	
Able to conduct standard analyses of blood, urine, and other body fluids	III/IV	
Able to conduct blood typing and cross-matching	III/IV	
Able to conduct coagulation studies	III	
The blood bank must have an adequate supply of red blood cells, fresh frozen plasma, platelets,	III	

New Hampshire Trauma System Plan Version 5.0

cryoprecipitate, and appropriate coagulation factors to meet the needs of injured patients		
Able to determine blood gases	III	
Able to conduct microbiology studies	III	
Able to conduct drug and alcohol screening	III/IV	
Must have a Massive Transfusion Protocol	III/IV	
<i>Performance Improvement & Patient Safety (PIPS)</i>		
The facility demonstrates a clearly defined PIPS program for the trauma population	III	
The PIPS program is supported by a reliable method of data collection that consistently gathers valid and objective information necessary to identify opportunities for improvement	III/IV	
Scheduled multi-disciplinary trauma review, to include case reviews and system process issues. Representatives of the NH Trauma Medical Review Committee may periodically participate in reviews	III/IV	
The program is able to demonstrate that the trauma registry supports the PIPS process	III/IV	
The PIPS process must include an analysis of over/under triage	III/IV	
The process of analysis occurs at regular intervals to meet the needs of the program	III/IV	
The results of analysis define what corrective strategies are required. These are then documented	III/IV	
Problem resolution, outcome improvements, and assurance of safety (loop closure) must be readily identifiable through methods of monitoring, re-evaluation, and documentation	III	
The program demonstrates concurrent methods for identifying opportunities for improvement and problem resolution	III/IV	
The trauma program is empowered to address issues that involve multiple disciplines	III/IV	
Criteria	Mandatory	Preferred
<i>Trauma Registry</i>		
Trauma registry data are collected and analyzed	III/IV	
Data elements required by the NH Trauma Medical Review Committee are submitted to the State	III/IV	
Data is submitted to the NTDB	III	
The facility uses the registry to support the PIPS process	III/IV	
The trauma registry has at least 80% of the trauma cases entered within 60 days of discharge	III/IV	
The trauma program ensures that trauma registry confidentiality measures are in place	III/IV	
There are strategies for monitoring data validity for the trauma registry	III/IV	

New Hampshire Trauma System Plan Version 5.0

<i>Injury Prevention / Public Education</i>		
The hospital participates in annual injury prevention efforts	III/IV	
<i>Continuing Education</i>		
Continuing Education Provided for Physicians	III/IV	
Continuing Education Provided for Nursing	III/IV	
Continuing Education Provided for Allied Healthcare/EMS	III/IV	
Criteria	Mandatory	Preferred
<i>Organ Procurement Program</i>		
The hospital has active participation with the region's organ procurement organization	III	IV
<i>Disaster Planning and Management</i>		
A representative of the trauma committee is a member of the hospital's disaster committee.	III	IV
<i>Pediatric Service</i>		
Any adult trauma hospital that annually admits 100 or more injured children younger than 15 years must fulfill the following additional criteria demonstrating their capability to care for injured children: trauma surgeons must be credentialed for pediatric trauma care by the hospital's credentialing body	III	
There must be a pediatric emergency department area, a pediatric intensive care area, appropriate resuscitation equipment, and a pediatric-specific trauma PIPS program	III	
For adult trauma hospitals annually admitting fewer than 100 injured children younger than 15 years, these resources are desirable. These hospitals, however, must review the care of their injured children through their PIPS program	III	
Nurses who care for pediatric trauma patients must hold current ENPC or PALS certification, or show evidence of pediatric trauma education annually	III	
Criteria	Mandatory	Preferred
<i>Pediatric Equipment</i>		
Organized pediatric cart with sizes for all pediatric patients	III/IV	
Pediatric equipment for monitoring, vascular access, fluid resuscitation, and respiratory/airway management	III/IV	
Pediatric resuscitation drugs	III/IV	
Printed drug doses/length-based resuscitation tape	III/IV	
Pediatric capable ventilator	III/IV	
Heating source (for infant warming)	III/IV	
Fracture management devices and equipment suitable for pediatric immobilization	III/IV	
Intraosseous infusion equipment with appropriate size gauges for children	III/IV	