Texas EMS-Trauma and Emergency Healthcare System Performance Improvement Plan

PURPOSE AND GOAL

A system approach to cardiac, EMS, pediatric, stroke, and trauma care provides the most optimal practices to protect the public from premature death and prolonged disability. Systems of care reduce death and disability by identifying causes of injury and time-sensitive diseases and decrease disparities in care. Systems promote public education and prevention programs to reduce injuries and increase the recognition of time-sensitive diseases such as stroke or cardiac events. System development and oversight ensure that the resources required for optimal care are organized and accessible.

The development of a statewide system of care must include mechanisms to monitor, measure, assess, and enhance the processes and outcomes of care. These initiatives must be continuous and involve multidisciplinary collaboration and focus on reducing the variations in care. Processes to monitor and evaluate the effectiveness of the system components, including prehospital care (communication, dispatch, medical control, triage, and transport), facility response and care, interfacility transfers, access to rehabilitation, and mass casualty disaster readiness, are integral to advance the system.

Statewide performance improvement (PI) requires a continuous cycle of monitoring and evaluation of system processes to identify opportunities for improvement. The statewide PI extends from prehospital care to PI programs of the designated facilities, regional systems, and programs within the Department of State Health Services, Consumer Protection Division, EMS/Trauma Systems Section (department).

The purpose and goals of the Texas Trauma and Emergency Health Care System's PI program are to:

- Alleviate unnecessary death and disability from the prehospital setting to the designated facilities caring for cardiac, geriatric, pediatric, stroke, and trauma patients across all geographic areas of Texas.
- Promote optimal prehospital, cardiac, geriatric, pediatric, stroke, and trauma care by performing ongoing cycles of evaluation of care and system components, identifying opportunities for improvement, and implementing actions as needed.
- Identify and alleviate disparities in care that are systemic, avoidable, and predictable.

The department is the lead agency authorized to develop and oversee a comprehensive, statewide trauma and emergency healthcare system and statewide system PI plan. The department has the authority to monitor, evaluate, and improve the processes of care and system outcomes throughout the state.

The department is responsible for:

1. Developing a comprehensive, statewide process to monitor, evaluate, and improve system performance, as a whole and by its regions, and within individual components of the system.
2. Establishing measures or expectations based on evidence-based guidelines.
3. Providing direct oversight of EMS licensure, provider complaints, facility stroke and trauma designation, regional advisory council performance criteria, and system development.
4. Collaborating with stakeholders through the Governor's EMS and Trauma Advisory Council (GETAC), Regional Advisory Councils (RACs), and stakeholders from all components of the system.
5. Communicating trends and issues identified by the department to GETAC and its supporting committees.
6. Initiating actions required to address potential emergency public health risks.
7. Developing and enforcing statutes, rules, and policies specific to EMS, facility designation, regional systems, and system PI.
8. Collaborating with the EMS/Trauma Registries to provide meaningful reports for stakeholders and to evaluate the system components and outcomes.

STRUCTURE

Statewide system PI is a collaborative effort between the department, GETAC, the RACs, and stakeholders to monitor, evaluate, and improve processes of care and outcomes. The role of GETAC is to provide expertise and advise the department in its efforts to analyze system components and recommend improvement initiatives to optimize care and improve outcomes.

To accomplish statewide PI, the department utilizes its various programs to identify opportunities for improvement in collaboration with GETAC. GETAC established a System Performance Improvement Committee comprising the GETAC Executive Committee, two additional GETAC members, the Chairs or their designee of each of the GETAC committees, and one representative appointed from the RAC chairs or the executive directors. The GETAC Chair will serve as the Chair of this System PI Committee for the first twelve months and may appoint a new Chair at the end of the twelve months or continue to serve as the System PI Committee Chair.

System Performance Improvement Committee:

1. GETAC Chair
2. GETAC Vice-Chair
3. GETAC Executive Council Member
4. Two Additional GETAC Members
5. Air Medical and Specialty Care Transport Committee Chair
6. Cardiac Care Committee Chair
7. Disaster Preparedness and Response Committee Chair
8. Emergency Medical Services (EMS) Committee Chair
9. EMS Education Committee Chair
10. EMS Medical Director Committee Chair
11. Injury Prevention and Public Education Committee Chair
12. Pediatric Committee Chair
13. Stroke Committee Chair
14. Trauma Systems Committee Chair
15. Regional Advisory Council Chair or Executive Director Appointed Member

The System PI Committee will utilize stakeholders for specific workgroups or task forces for special projects. The department is responsible for program support and to provide information and data, as available, regarding the system components.

RESPONSIBILITIES

The System PI Committee is responsible for reducing unnecessary death, disability, and cost. The committee is responsible for determining patterns or trends in care processes, assessing outcomes, and recommending improvement initiatives to optimize care. This review includes comparing and benchmarking services from regional, state, and national data. Data includes prehospital, cardiac, geriatric, pediatric, stroke, and trauma, including comparable data from other states and system reviews.

The System PI Committee establishes the priorities for identified initiatives and engages stakeholders in the workgroup for these initiatives.

The System PI Committee is responsible for:

1. Convening quarterly during the GETAC meetings
2. Following the GETAC Standing Operating Procedures
3. Providing oversight of research initiatives for the Council or systemwide initiatives.
4. Defining the data required and quarterly reports necessary to evaluate the system performance for prehospital, cardiac, geriatric, pediatric, stroke, trauma, and RAC performance.
5. Collaborating with the department and other stakeholders to access data.
6. Keeping the other committees' members and stakeholders updated on the activities of the System PI Committee.
7. Evaluating various referrals and recommendations from other committees, RACs, or stakeholders.
8. Focusing on global issues that impact the Texas system of emergency healthcare.

The System PI Committee Chair must be capable of providing the leadership necessary to monitor, evaluate, and improve system performance and outcomes using methodologies appropriate for systems analysis for all system components and populations.

Department Responsibilities

The department is responsible for providing the System PI Committee with aggregate data as available and resources to conduct system PI activities effectively.

The specific responsibilities of the department are to:

1. Provide oversight of the GETAC System PI Committee.
2. Provide available aggregate data as appropriate to the committee to support the PI activities.
3. Consider and prioritize PI committee recommendations for corrective actions that align with the statutes and level of authority for the system, including any associated costs.
4. Communicate trends, problems, and outstanding issues identified by the state or RACs to responsible entities.
5. Implement actions required to correct a potential emergent medical and public health risk.
6. Ensure all information remains in aggregate format and identifiable individual healthcare information is protected.

IMPROVEMENT OPPORTUNITIES

The primary objective of the trauma and emergency healthcare system is to decrease unnecessary death and disability by reducing variances in care and inequities of care. Each participating EMS provider, designated facility, and RAC must have a PI plan (a quality assessment performance improvement plan for stroke facilities). Their plan must integrate the established statewide terminology for performance improvement.

Culture of Safety: A culture in which the staff acknowledge opportunities for improvement, feel supported to raise issues, concerns, or errors, and are empowered to bring solutions that lead to sustainable, positive change; respectful and inclusive behaviors are instinctive and serve as the behavioral norms for the organization, and the physical and psychological safety of patients and the workforce is both highly valued and ardently protected.

Disparities or inequities in care: Differences in care regarding access, management guidelines and treatment, and outcomes between individuals across populations that are systemic, avoidable, or predictable.

Just culture: A system of shared accountability in which health care entities are accountable for the systems and care services the entities have designed in a fair and just manner.

Event: A variation from the established care management guidelines or system operations, such as delays in response, delays in care, complications, or death. An event creates a need for a review of the care to identify opportunities for improvement.

Level of harm: A classification system that defines the impact of an event on the patient. There are five levels of harm used to define the impact on the patient as defined by the American Society for Health Care Risk Management:

1. **No harm** - The patient was not symptomatic, or no symptoms were detected, and no treatment or intervention was required.
2. **Mild harm** - The patient was symptomatic, symptoms were mild, loss of function or harm was either minimal or intermediate but short-term, and no interventions or only minimal interventions were needed.
3. **Moderate harm** - The patient was symptomatic, required intervention such as additional operative procedure, therapeutic treatment, or an increased length of stay, required a higher level of care, or may experience permanent or long-term loss of function.
4. **Severe harm** - The patient was symptomatic, required life-saving or other major medical or surgical intervention, or may experience shortened life expectancy and may experience major permanent or long-term loss of function.
5. **Death** - The event was a contributing factor in the patient's death.

Levels of review: Describes the levels of performance improvement review for an event in the quality improvement or performance improvement patient safety plan. There are four levels of review:

1. **Primary level of review** – The initial investigation of identified events by the program's performance improvement personnel to capture the event details and to validate and document the timeline, contributing factors, and level of harm. This must be written in the program's performance improvement plan.
2. **Secondary level of review** – The level of review by the medical director that defines the final level of harm, defines the opportunities for improvement with action plans, or refers to the next level of review.

3. **Tertiary level of review** - The third level of review by the program evaluates care practices, decisions, timeliness, interventions, and compliance with defined management guidelines, identifies opportunities for improvement, and defines a corrective action plan. Minutes capturing the event, discussion, and identified opportunities for improvement with action plans must be documented.
4. **Quaternary level of review** – The highest level of review, which may be conducted by an entity external to the program as an element of the performance improvement plan.

Corrective action plan: A plan for the program to address the variances in care and create the needed change to improve care or system response.

Event resolution: An event, which is identified and reviewed with recognized opportunities for improvement in care or the system, with a specific action plan defined and implemented, and tracked with data analysis to demonstrate that the corrective action changed outcomes to meet the desired goal, and the improved outcomes are sustained.

Classifying morbidity and mortality with the following terms:

- Morbidity or mortality without opportunity;
- Morbidity or mortality with opportunity for improvement; and
- Morbidity or mortality with regional opportunity for improvement.

Multidisciplinary Peer Review Committee: Committee responsible for evaluating the processes of care related to decisions, timing, interventions, and outcomes to ensure patients receive safe, quality, and reliable care from skilled, competent healthcare professionals; serves as a process to self regulate cases; identifies outliers and variances in care; and stimulates research and innovations to address identified opportunities for improvement.

Operations Committee: Committee that provides administrative oversight for a program or organization and is responsible for the approval of protocols, patient management guidelines, or operational changes within the program or system that have the potential to impact care practices before implementing the change to the program or organization.

REPORTING

An annual report reflecting the findings and accomplishments of the System Performance Improvement is jointly prepared by the System PI Committee, GETAC, and the department. This report includes a description of the trauma and emergency healthcare system's successes or failures in its efforts to improve care and outcomes. The report is directed to GETAC members, RACs, stakeholders, and the department leadership.

REFERENCES

Develop a Culture of Safety | IHI - Institute for Healthcare Improvement

Leadership Guide to Patient Safety | IHI - Institute for Healthcare Improvement

Understand Just Culture | Agency for Healthcare Research and Quality (ahrq.gov)

DISPARITIES IN HEALTHCARE - 2021 National Healthcare Quality and Disparities Report - NCBI Bookshelf (nih.gov)

SSE-2_getting_to_zero-9-30-14.pdf (ashrm.org)

2022 Resources Repository | ACS (facs.org)

regionaltraumasystems.pdf (facs.org)

Trauma Systems Components/Models | ACS (facs.org)