

Draft Draft Draft

**Texas EMS/Trauma
System Performance
Improvement
Plan: State,
Regional, Local**

Last Revision – April 2011

INTRODUCTION

The development of a statewide EMS/Trauma System of Care includes a mechanism for ongoing evaluation to improve the process and effectiveness of the system as a whole and by its components – prehospital dispatch, medical control, field triage, hospital care, inter-facility triage, and rehabilitation care. A **Performance Improvement (PI) Plan** in an organized trauma care system consist of internal and external monitoring and evaluation of care provided through the phases of care and continuum of care. The goal of monitoring is to identify opportunities to reduce inappropriate variations in care and to develop corrective action strategies. The effectiveness of the corrective action is monitored and measured through progressive review cycles.

This Plan provides guidelines to assist and the Texas EMS / Trauma Committees monitor the performance of the system, regions and individuals within the agencies and institutions. The goal is to provide a structure for each level of responsibility.

PHILOSOPHY OF THE EMS / TRAUMA SYSTEM

- The EMS / Trauma System of Texas provides the highest quality of care and service.
- The EMS / Trauma System of Texas is dedicated to providing specialized, accountable, efficient and equitable care to all injured individuals.
- The EMS / Trauma System of Texas is dedicated to improving outcomes and recovery for all individuals regardless of age, geographic location or economic background.
- The EMS / Trauma System of Texas’s primary focus is prevention, through programs targeting the reduction of the incidence of trauma injury, systems designed to expedite access to definitive care and dedicated staff that recognize the impact of trauma and provide measures that decrease complications and mortality due to injuries.
- The EMS / Trauma System of Texas is dedicated to building a cadre of experts whose purpose is to monitor the system and outcomes to define opportunities to improve care, accountability of service, efficiency, effectiveness, and cost to promote a transparent health care system.
- The EMS / Trauma System of Texas is dedicated to building coalitions to support public education, specific trauma programs that include awareness and prevention as well as research that promotes the reduction of injury, disability and death due to trauma injuries.

MISSION

Our mission is to provide accountable, equitable, quality care that is driven by evidence based practice and performance improvement reviews which are facilitated by data analysis and peer review at all levels of care delivery.

VISION

That all the people of Texas, because of the effectiveness of our prevention programs, are the least likely in the nation to be seriously injured or killed; but if injured, have the best chance for survival and maximal potential for recovery.

AUTHORITY

The Texas EMS / Trauma System Performance Improvement Plan is under the direction of the Department of State Health Services' Office of EMS / Trauma System Coordination. The Office of EMS / Trauma System Coordination has the authority to monitor all events that occur during an EMS / trauma related episode. The EMS / Trauma System delivery begins with access and covers the continuum of care. Routine system performance improvement activities will be reviewed and addressed through the local Trauma Service Area Councils and processed through to the State EMS / Trauma Performance Improvement Process.

All performance improvement activities at the local, regional and state must follow:

Health and Safety Code Chapter 773.995

Records and Proceedings Confidential

- a) The proceedings and records of organized committees of hospitals, medical societies, emergency medical services providers, emergency medical services and trauma care system, or its responder organizations relating to the review, evaluation, or improvement of an emergency medical services provider, a first responder organization, an emergency medical services personnel are confidential and not subject to disclosure by court subpoena or otherwise.
- b) The records and proceedings may be used by the committee and the committee members only in the exercise of proper committee functions.
- c) This section does not apply to records made or maintained in the regular course of business by and emergency medical services provider, a first responder organization, or emergency medical services personnel.

Pursuant to Section 160.007 of the Texas Occupations Code, the following information relating to trauma performance improvement review is confidential and privileged.

CREDENTIALING

Individuals participating on the EMS / Trauma System Performance Improvement Committee must be an active provider in the system and have completed an approved performance improvement outcomes course.

EMS / Trauma System Performance Improvement Plan

PURPOSE

The purpose of the EMS / Trauma System Performance Improvement Plan is to measure, evaluate, and improve the process, accountability, efficiency, effectiveness and reliability of the system of care rendered through all phases of trauma care from 911 dispatches through rehabilitation. The EMS / Trauma Performance Improvement Plan establishes lines of communication, authority and accountability for monitoring aspects of care and defines guidelines to measure the quality and outcome of care. The objective of the EMS / Trauma System PI Plan is to assure that EMS / trauma care management guidelines are followed and that appropriate variations in care are minimal.

STRUCTURE

The EMS / Trauma System PI Plan consists of internal and external monitoring and evaluation of care. This includes evaluation of prehospital, hospital (admission through to discharge), regional advisory councils and the lead agency who has the authority to oversee the system.

RESPONSIBILITIES

In an organized EMS / trauma care system, the process for performance improvement must exist at each level of care. The performance improvement activities conducted at each phase of care includes infrastructure review, system response, services provided and utilization. Processes to monitor compliance to established guidelines and outcome measures such as death, disability, complications, and associated costs are core components of the PI plan. In addition, compliance to licensure and regulatory statutes as well as trauma center criteria are integrated into the system review.

Each level of the system has defined responsibility for the administration and reporting of performance improvement initiatives. Regulations and procedures to ensure confidentiality of the performance review must be documented and covered in the statutory regulations.

LEAD AGENCY

The Texas Department of State Health Services' Division of EMS / Trauma Management is the lead agency for the organizational structure and oversight of the EMS / Trauma System Performance Improvement Plan. DSHS is responsible for the following activities:

- Organizational structure and oversight for all EMS/Trauma System activities
- Oversight of the Governor's EMS / Trauma Advisory Committee and all supporting committee structure.

- Oversight of all regional trauma advisory council activities.
- Development of an EMS / Trauma System Performance Improvement State Review Committee, and Committee members who include but are not limited to:
 - a) Representative from Trauma System Committee.
 - b) Representative from EMS Committee
 - c) Representative from Air Medical Committee.
 - d) Representative from Medical Director Committee.
 - e) Representative from Pediatric Committee.
 - f) Representative from Education Committee.
 - g) Representative from the Injury Prevention Committee.
 - h) Representative from an urban Regional Advisory Council.
 - i) Representative from a rural Regional Advisory Council.
 - j) Representative from the Texas EMS Trauma and Acute Care Foundation.
 - k) Texas Ambulance Association
 - l) Representative from the Texas Trauma Coordinators Forum.
 - m) Representative from Texas EMS Association.
 - n) Representative from TMA.
- This committee is charged with reviewing the quarterly reports generated by each of the regional advisory councils to define issues, trends, data needs and action plans.
- This committee will define the quarterly State EMS / Trauma Registry reports requested to identify performance, trends and follow up action plans.
- This committee will meet bi-annually at times not congruent with State Governor's EMS / Trauma Advisory Council meetings.
- This committee will make recommendations and develop action plans for the lead agency for each identified opportunity.
- This committee will have access to the following data and reports:
 - a) EMS/Trauma Registry Data
 - b) Regional Performance Improvement reports
 - c) System Plans, protocols, guidelines, policies and procedures

PROCEDURES

The EMS/Trauma System Performance Improvement initiative consists of ongoing and systematic monitoring, evaluation, management and documentation of performance. This system PI process is supported by a valid and objective method of data collection and collation. The development of standard guidelines from evidence based practice, protocols, consensus of aspects of care and regulatory statues are components of the review process. Defined outcome measures and quality care indicators are tracked and monitored through this process.

ASPECTS OF REVIEW

Selected guidelines or specific events will be used to identify processes that may warrant further review and be the basis to trend and/or benchmark performance. The committee

defines system expectations that are objective, easily defined and available for data collection. The system PI process will include geographic, environmental and age related performance expectations.

DSHS and the defined Governor's EMS / Trauma Advisory Council and supporting committees utilize the HRSA 2006 Model Trauma System Plan to define their annual goals and needs assessment. The annual goals are monitored and evaluated for the committee effectiveness and leadership.

The State EMS / Trauma PI Committee will consider the following variances but not limit the reviews to the following:

- Variations in Trauma Outcomes Between Regions (<10% Variance)
- Transfer Appropriateness
- In-Patient Transfers
- Appropriate Transport Utilization / Closest Most Appropriate Facility
- EMS Medical Director Credentialing
- All Areas of State Have Access To Advanced Pre-Hospital Provider With 30 Minutes of Injury
- Communication For Designation Is Coordinated Through One Office
- Notification of Receipt of Designation Application and Approval or Denial For Survey Is Within 30 Days
- Notification of Designation Is Received Within 60 Days of the State Receiving the Site Survey Summary
- State Evaluates Resources to Sustain State Trauma System every other year
- State Evaluates State Trauma System Plan Every 4 years To Ensure It Meets Environment, Regulatory and Industry Standards
- State Committees are Meeting Goals and Attendance Meets Standards
- Compliance with Data Reporting
- List of Most Common Trauma Facility Review Criteria Deficiencies
- State Committee Members are Participating RAC Members
- Utilization and Delays Due to Air-Medical Scene Transports
- Incidence of Multiple Air-Medical Response At One Scene
- Comparison of MICN Program to Dispatch Programs
- Safety Device Utilization

ANNUAL REPORT

DSHS produces an annual report that reflects the following, but is not limited to the data components:

- Names and Contact List of Regional Providers with Defines Status of Basic Life Support vs Advanced Life Support
- Number of Counties without 911 Coverage, Basic Coverage and Enhanced Coverage

- Number of 911 EMS Agencies
- Number of Designated Trauma Facilities by Level, Region, Pediatric
- Number of Waivers Granted Annually by Category
- Number of EMS Runs Annually
- Number of Air Medical Scene Responses Annually
- ISS Score Review of Air Medical Transports
- Number of Trauma Transfers Annually
- Miles Transferred
- Cost of Transfers
- Transfers out of RAC, ISS, Age, Mechanism Category
- By County, Region, Number, Percent of Patients Receiving Pre-Hospital Contact From An Advanced Level (EMT-I/EMT-P/LP) Provider within 30 Minutes of the Time of Injury
- Number of EMS Agencies Submitting Data To the EMS Registry, Percent, Urban, Rural, County Based, Fire Based, Air-Medical
- Number of Trauma Hospital Admissions Annually by ISS and by Level of Trauma Facility
- Trauma Activity in Non-Designated Hospitals
- Mechanism of Injury Breakdown Annually with Associated Cost / Mortality
- Age Breakdown by ISS, Level of Trauma Facility, Mechanism
- Gender Breakdown by ISS, Mechanism
- Utilization Review of the Trauma Facility, Region, Level of Trauma Center
- Cost of Trauma Care – EMS, Air Medical, Trauma Centers, Rehabilitation
- Uncompensated Care by All Phases of Care
- Under-Insured by All Phases of Care
- Inability to Transfer to Rehabilitation
- Payer Mix Review, ISS, Level Of Trauma Facility
- Dollars Distributed Through EMS / Trauma Care Account
- Dollars Distributed Through 3588
- Number of Educational Programs Provided, EMS, Nurses, Physicians, Other with Number of Participants
- Number of Conferences Sponsored by the RACS
- Injury Prevention Activities / Outcomes
- Define Top Five E-Codes Producing Trauma Admissions, Mortality, Disability, Cost
- Number of Injury Prevention Coalitions and Targeted Population
- Utilization of Safety Devices
- Alcohol Related Injuries Compared To Other States
- Outcome by FIM or NTDB for Age, Mechanism and Level of Trauma Facility
- LOS by ISS, MOI, Level of Trauma Facility
- Morbidity Review by ISS, Level of Trauma Facility
- Morbidity Review Comparison With NTDB, ISS, Level of Trauma Facility

- Number of Trauma Patients Arriving At Designated Trauma Facility Requiring Specialty Surgery With Surgical Specialty Seeing Patient Within 2 Hours, ISS, Age, Trauma Facility, RAC Breakdown
- Mortality Review by ISS, and Level of Trauma Facility
- Projected Years of Life Lost and Productivity Due to Trauma, Mechanism, Factors, Age
- Comparison To others States: Injuries, Mechanism, Age, Funding
- Regional Purchases to Improve the EMS / Trauma System
- After Action Reviews of all Actual Regional Responses

STATE EMS / Trauma System Performance Criteria

Performance Criteria	Compliance Target
Greater than 5% national variance in overall annual trauma mortality	
In-patient transfers from non-designated facilities	< 5% (total transfers)
Trauma patients that are transferred from an inpatient bed in a non-designated or designated trauma facility.	<1% (total transfers)
Appropriate transport utilization, transport team capabilities and timeliness are appropriate for the patient's injuries and needs.	90% of all transports
All RACs will have standardized EMS Medical Director Criteria with defined expectations that are approved by DSHS.	80% for the 22 TSA
Advanced pre-hospital provider at patient's side within 30 minutes of call to 911.	95% of all 911 calls
Trauma facility designation is coordinated through one office.	100%
Approval for designation site survey is approved or denied within thirty days of receiving the completed trauma facility designation request application.	95% of all applications
Notification of designation is reviewed by DSHS and is forwarded to the facility requesting designation or re-designation within 60 days of receiving the site survey summary report	95% of all site survey reports
DSHS completes a needs assessment to define resources needed to sustain the State EMS / Trauma System by March of every even year.	100%
DSHS updates the EMS / Trauma System strategic initiatives every four years (2012, 2016, 2020, etc...) to ensure it is compliant with environmental, regulatory and industry standards.	100%
DSHS evaluates the GETAC committees on performance and outcomes at defined intervals.	100%
DSHS holds all EMS agencies and designated trauma facilities accountable for submission of required data annually.	100%
DSHS defines the top five reasons for trauma center designation failures every even year.	100%
DSHS holds all members of its EMS / Trauma Committees accountable for participation in their local RAC and attendance at committee meetings.	95%
DSHS has a defined an expert panel to review emergency management (disaster) incidents of partial or full response for multiple casualties with multiple agency response to define opportunities regarding communication, control at scene, triage, and patient outcomes within sixty days of the event.	95%
DSHS will define the safety restraint utilization in vehicle crashes by TSAs and define mechanism to promote public education for areas that fall 5% below the national average.	90% of TSAs with 5% or below utilization have plan
DSHS will develop and implement mechanism to define the true incidence of alcohol related injuries and promote public education and injury prevention strategies for TSAs that are 5% higher than the national average.	90% of TSA with 5% or higher have defined plan.
Each TSA will have a defined pediatric fatality review team.	100%
DSHS will maintain a current list of licensed EMS agencies and define status of ALS and BLS servoces in each RAC and the State annually.	100%
DSHS will maintain a current list of all air medical agencies and resource capabilities in each RAC and the State annually.	100%

REGIONAL PERFORMANCE IMPROVEMENT PLAN

PURPOSE

The purpose of the Regional EMS/Trauma System Performance Improvement (PI) Plan is to measure, evaluate and improve the process and effectiveness of the regional trauma system as a whole as well as the various components of the system. These components include but are not limited to dispatch, prehospital care, medical control, field triage, hospital transfer, hospital care and rehabilitative care. The performance improvement model emphasizes a continuous multidisciplinary effort to monitor, assess and improve the process and outcomes of regionalized trauma care. The long-term goal is to decrease trauma related morbidity, mortality and disability by reducing inappropriate variations in care through progressive cycles of performance review.

AUTHORITY

The State Statutes define the twenty-two trauma service areas. These trauma service areas created the twenty-two Regional Trauma Advisory Councils through Bylaws, Articles of Incorporation and 5013C Status. (Omnibus Rural Health Care Rescue Act HB-18, May 1989 adopted by the Texas Board of Health in January of 1992 defines the regulations for trauma system development.) These State Statutes require the Regional Advisory Councils to develop and implement a regional EMS/Trauma System Plan that defines process for the following:

- a) Access to the system
- b) Communication
- c) Medical oversight
- d) Prehospital trauma triage
- e) Bypass
- f) Division
- g) Regional medical control
- h) Facility triage criteria
- i) Inter facility transfer guidelines
- j) Trauma facility designation assistance
- k) EMS/Trauma regional performance improvement process
- l) Disaster management regional response
- m) Injury prevention
- n) Regional trauma treatment guidelines

PERFORMANCE REVIEW INCLUSION CRITERIA

The elements of the system to be reviewed through System EMS / Trauma System performance improvement process may vary among the twenty-two trauma service Regional Advisory Councils. The system review of performance includes the EMS agencies, hospital and trauma centers for the following criteria, and mortality reviews. See below for a list of potential items to include but note, review should not be limited to these items.:

- EMS field triage to a trauma center criteria standards
- Hospital ICD-9-CM diagnosis code of 800.00 – 959 outcomes
- All hospital trauma admissions
- Records that meet criteria for State EMS/Trauma Registry inclusion
- All trauma related mortalities (hospitalized and non-hospitalized)
- All EMS (ground or air) transport incidences involving trauma patients
- All multiple trauma casualty events
- All mass casualty events
- All EMS events with a change of service not communicated regionally 30 days prior to change
- Lack of essential resources to support the trauma centers
- Lack of essential resources to support the regional trauma advisory council

STRUCTURE

System Performance Improvement includes internal and external monitoring that evaluates care provided through the phases of care: dispatch, pre-hospital, hospitals and rehabilitative care. Monitoring the on-going processes or phases of care that assists in identifying opportunities to reduce variances in the system is the goal. Action plans define strategies and SMART Goals to improve care and data availability. Corrective action plans and initiatives are evaluated through continuous regional reassessment cycles.

SMART Goals are defined using this structure. Goals must be **specific** and address the exact actions to improve performance. The outcome of these actions must be **measurable** and targeted improvement must be clearly stated. The goal must be **attainable** and reachable. The goals must be **relevant** and be linked to the corrective actions. The actions must be **time bound** and have a specific completion date.

RESPONSIBILITIES

Each Regional Advisory Council will define the process structure and oversight of the Regional System Performance Improvement Committee. Membership and meeting schedule is defined by the regional bylaws or Standard Operating Procedures. Each Regional Advisory Council System Performance Improvement Committee defines their criteria or events to be reviewed, phases and levels of review, review judgments, standardized action plans, tracking process and committee structure. Each RAC must define measures to ensure confidentiality. The regional registry should be integrated into

the system performance improvement initiatives and have standard operating procedures that govern data submission, data extraction, data reporting and data sharing.

Sources of information and data to support the PI initiatives include but are not limited to the following:

- a) Pre-hospital reports
- b) Hospital reports
- c) Public Safety reports
- d) Dispatch reports
- e) Transfer reports
- f) Fatality review reports
- g) Trauma Registry data
- h) Complaints
- i) Referrals
- j) System Plan
- k) Boarding Regions or State data
- l) Public Health Department
- m) Emergency Managers

VOLUME TRENDS

The trauma population described in the Regional Trauma System Plan quantifies the Region's trauma volume. The Region monitors resource utilization, mortality rates, injury epidemiology and system needs including provider and public education. Regional geographic reports are recommended to assist with defining system needs and opportunities for improvement. The region may chose to create zones within the region to enhance management operations. These zones may define rural areas and link standard transfer patterns or be based on population mapping.

PROCESS MEASURES

Process indicators measure and evaluate and improve system performance. This is one component of an effect system PI plan. These process measures are developed from committee consensus, evidence based practice guidelines, system protocols and the regional trauma system plan. Examples of process measures include but are not limited to the following:

- 1) Timeliness of EMS arrival
- 2) Timeliness of air medical arrival
- 3) Availability of resources
- 4) Transfer timeliness
- 5) Utilization of air medical resources
- 6) Field triage compliance
- 7) EMS to trauma center communication
- 8) EMS patient care record
- 9) Timeliness of trauma activation
- 10) Timeliness of surgeon response

- 11) Utilization of warming devices (pre-hospital and trauma center)
- 12) Number of registry records completed within 60 days of patient discharge
- 13) Timeliness of regional registry downloads
- 14) Availability of specialty coverage
- 15) Availability of pediatric trauma care
- 16) Number of trauma admissions with increased LOS due to funding / placement issues
- 17) Number of facilities submitting data to NTDB
- 18) Number of trauma patients with completed SBIRT screens
- 19) Patients requiring rehabilitation will have access to rehabilitation bed
- 20) Trauma center criteria requiring surgical specialty coverage is met decreasing the need for patient transfer
- 21) Trauma patient transfer is facilitated through regional transfer center
- 22) Average time on backboard is 30 minutes
- 23) Timely completion of regional HVA
- 24) Timely completion of regional needs assessment
- 25) Timely completion of the annual review of the Trauma System Plan
- 26) Access to sexual assault team
- 27) Access to domestic violence resources
- 28) Access to child abuse response teams
- 29) Access to drug/alcohol / psychiatric treatment facility
- 30) Two multidisciplinary conferences are completed annually
- 31) EMS / Air Medical / Trauma Medical Directors participate in regional PI process
- 32) Compliance to NEMISIS and NTBD data definitions
- 33) Integration with blood donor center to measure blood shortages
- 34) Integration with organ procurement organization
- 35) Integration with police / DPS
- 36) Integration with emergency management
- 37) Integration with Council of Government
- 38) Measures to ensure confidentiality
- 39) Measures to secure and protect data
- 40) Process for addressing complaints, grievances
- 41) Signed agreement of participation (MOU) by all EMS, air medical and hospital facilities in region
- 42) Completion of regional annual report

OUTCOME MEASURES

There are a number of variables which have traditionally been used to measure the outcome of trauma care. These include but are not limited to the following:

- 1) Morbidity
- 2) Mortality, autopsy findings
- 3) Medical examiner reports on trauma scene fatalities
- 4) Hospital length of stay
- 5) Intensive care unit length of stay

- 6) Cost of care (defined as the initial EMS transport and / or hospitalization)
- 7) Funding source or lack of funding
- 8) Functional disability
- 9) Patients with GCS of 8 or less have a appropriate airway management
- 10) Process to review RSI airway interventions
- 11) Airway management for pediatric population is appropriate
- 12) Vascular access for pediatric population is appropriate
- 13) Vaccination assessment for pediatric population is appropriate
- 14) Transfers from in-patient setting
- 15) Two or more transfers
- 16) Surgical specialty transfers for ENT, ophthalmology, oral surgery, hand, plastics for the Level I or Level II Trauma Facilities
- 17) Patients with GCS of 12 or less have a head CT scan within 30 minutes of arrival at trauma center
- 18) Hypotensive patients that do not respond to resuscitation are transferred to definitive care or go to the OR or angio suite within one hour of arrival
- 19) Patients with open long bone, joint or pelvic fractures will have a definitive washout or bedside washout within 8 hours of injury and antibiotics within 30 minutes of arrival at the facility
- 20) Cost of EMS / Trauma Care In Region, defining specifically uncompensated care
- 21) Cost of physician coverage and uncompensated care within the region
- 22) Admitted trauma patients without a TBI and have a stable HCT/HQ will have chemical DVT Prophylaxis started within 24 hours of admission
- 23) Patients With a GCS Motor Score of <4 and positive CT scan will have ICP Monitoring or Craniotomy within 12 hours
- 24) Impact of injury prevention programs is evaluated
- 25) Number of educational programs provided and target of program is based on PI findings
- 26) Top five E-codes producing injury in region
- 27) Top five E-codes producing death in the region
- 28) Top five E-codes producing disability in the region
- 29) Breakdown of ISS by level of trauma center with comparison outcomes

Example of ISS by Trauma Facility Review

Annual ISS Review	Total	Level IV	Level III	Level II	Level I
ISS 0-8					
ISS 9-14					
ISS 15-24					
ISS ≥25					
Total					

Complications and functional disability should utilize the National Trauma Data Bank and National Emergency Medical System Information System data definitions to ensure data is comparable. Regional Registry data may track complication rates.

Individual case outcome review is structured in a multidisciplinary case review format, focusing on education and system improvements. Individuals that are essential to the review need to be included in the review process. The process and outcome reviews may be structured in an open EMS / Trauma System performance improvement meeting or a closed performance improvement meeting. This must be defined at the regional level in the Bylaws or Operational Procedures. Each committee member has defined performance expectations to participate on the committee. Attendance and participation is monitored. Confidentiality statements must be signed at each committee meeting. No documents with identifiers (name, hospital name or EMS name, etc...) are distributed or shared outside the meeting.

The regional system may chose to have a structure peer review PI meeting. The purpose of this committee is to evaluate the system and provider decision making for specific cases and must include peers. This closed multidisciplinary peer performance improvement committee may assist the level IV and Level III facilities with trauma peer review and mortality reviews. Hospitals that have physician working as partners may chose to utilize the RAC for peer performance reviews. These meetings must be considered confidential and be protected.

The standards of care or consensus guidelines are established by defined stakeholders. This may include the various medical site websites that include evidence based practice guidelines. Processes and outcome measures are defined utilizing these standards of care or evidence based practice guidelines. These guidelines are documented and signed off by the regional medical oversight committee.

DOCUMENTATION

Regional peer review committees maintain only one copy of the documents in a secured protected environment. All documents must be labeled as PI and have confidentiality statements on the documents. Identifiers must be stripped and HIPAA guidelines must be met. Regional system performance committee documentation, attendance, minutes, action plans and follow up issues must be maintained by staff or designated individual who are accountable for confidentiality and HIPAA regulations. Procedures to ensure confidentiality, compliance to State Regulation and the EMS / Trauma System Plan must be well documented and adhered to. The State Health and Safety Code Chapter 773.995 must be followed. In addition, all records and documents defined in Section 160.007 must be addressed.

The aspects of documentation security to protect the patient, provider, agency/facility and region include but are not limited to the following:

- Use of locked file for all pertinent information
- Provision of confidentiality statement / agreement for all committee participants
- Sanctions for breach of confidentiality

- Shredding of all copies of PI documents
- Security efforts at PI meetings such as numbering or color coding and collection of all documents
- Procedures for managing mailing, electronic mailing or transmission of PI documents

The data analysis, judgment process and corrective actions plans are well defined and documented. These documents are included in the secured environment. These documents are covered in the Performance Improvement Plan and are confidential.

ANNUAL REPORT

Each Regional Advisory Council will define its structure and capability to produce an Annual Report. Annual Report inclusion items are defined by the RAC voting members.

RELEASE OF INFORMATION

Each Regional EMS / Trauma System Plan defines their process for release of information and who can have access to information. PI information in a summary format with aggregate data may be made available to participating members of the RAC. Requests for release of PI information by non RAC participating members regarding system performance and the quality of care summaries for the region for professional research or specific workgroups need a defined protocol and structure. EMS, air medical, hospitals and trauma centers may require an Institutional Review Board approval from their agency/institution prior to release of their data. These processes need to be addressed in advance through Memorandum of Agreements, HIPPA Business Agreements, contract or protocols.

The information release procedures should consider but not be limited to the following:

- Registry data
- Measures to ensure exclusion of patient identifiers
- Measures to ensure confidentiality of the providers and agencies
- Intervals for regular information release
- Oversight process for data release to public and media
- Data for research
- Procedures for data release: paper copy, data downloads, website, thumb drive, disc, etc...

EMS / TRAUMA CENTER PERFORMANCE IMPROVEMENT PLAN

Each EMS, air medical agency and participating trauma center must maintain an effective performance improvement plan. Recommendations for performance improvement include but are not limited to the following:

- EMS / Trauma Medical Director has authority to manage the performance improvement plan
- Performance Improvement Plan defines the organizational structure, levels of review, authority, committee structure and integration with the RAC
- Retrospective review, following the specific completed action plans, demonstrate improvements
- Review process for judgment, action plans and flow of information is defined
- PI process is concurrent and is continuously reviewing all phases of care
- PI process is inclusive of morbidity, mortality, compliance to evidenced based standards of care, patient safety standards, and system performance
- Registry data is analyzed and dashboards are utilized to improve care
- PI process has a structured format that produces minutes that summarize the review through the PI Committee structure and Leadership Committees for the organization
- Multidisciplinary EMS / Trauma Peer Review process demonstrates appropriate discussion of the identified PI issue, impact on patient care, standard of care review and action plan
- Issues are tracked for closure
- EMS / Trauma Medical Directors are reviewing the performance and participation of the defined core physicians
- PI process has mechanisms in place to review all phases of care for the trauma patients

EMS / TRAUMA PROGRAM ASSISTANCE

The RAC has measures in place to support program assistance to the participating members of the RAC. These programs include but are not limited to the following:

- Regional system has a program designed to provide technical assistance with building an EMS / Trauma Program or rebuilding process in situation where critical positions have been vacant for prolonged periods of time
- Technical assistance is provided by a specific provider, workgroup, sub-committee or committee
- Assistance request identifies the area targeted:
 - Job descriptions
 - Organizational structure
 - Criteria compliance
 - Documentation compliance
 - Performance improvement process
 - Trauma registry processes: data extraction, data entry, data validation, utilization
 - Injury prevention program development and evaluation
 - Education program development
 - Training for targeted functions
 - Resource utilization
 - Benchmarking opportunities

REGIONAL PROCESS PERFORMANCE REVIEW

Process Criteria	Compliance Target
EMS providers will arrive on scene within XX minutes of dispatch.	95%
Air medical providers will arrive on scene within XX of request.	95% (weather events not included)
Region will define the accepted total prehospital time and monitor.	85% Compliance
The region will have a less than 5% total incidence of trauma facility diversion quarterly.	<5%
Region will have defined air medical utilization standards that are reviewed every other year or with a change in the agencies available.	Reviewed and approved by membership every other year.
Patients that are transferred for definitive care to a trauma center will have the transfer initiated once these injuries are defined and then transfer will be completed within two hours.	90%
Each region will have provisions to coordinate communication and expedite trauma transfers.	100% of the TSAs will meet criteria
Patients will be triaged to the appropriate trauma facility, following the regional field triage criteria.	90%
EMS providers will notify the receiving trauma facility for all critical and serious trauma patients (level I or II activations) prior to arrival.	90%
EMS providers will leave the standard - essential documentation of the EMS patient care record at the facility with the patient.	90%
Trauma facilities must monitor the timeliness of trauma activations and trauma surgeon response times, and report incidence of less than 80% surgeon response compliance to the highest level of trauma activation to the RAC.	Trauma Facility will report compliance less than 80% to the RAC PI Committee.
EMS providers must have provisions to prevent hypothermia.	90% of agencies will have hypothermia protocols.
Trauma centers will complete the trauma registry profiles for trauma patients meeting the DSHS trauma registry criteria within 60 days of discharge for the hospital trauma registry and submit at a minimum quarterly downloads to the state and regional registries as appropriate.	100% of all trauma facilities complete quarterly downloads.
The region will have provisions for specialty coverage to include neurosurgery, orthopedics, pediatrics, hand, microvascular, ENT, ophthalmology and burns.	100%
The region monitors trauma patients with increased length of stay due to	100% of the

lack of access to rehabilitation due to bed or funding availability. This is defined as a patient ready for discharge but can not be discharged due to lack of funding for a rehabilitation bed or availability of a rehabilitation bed.	trauma facilities will participate in monitoring.
Level I, II and III trauma centers participate in the NTDB.	95%
Level IV trauma centers send data to the NTDB.	25%
Time on a backboard is monitored through out the region with collaboration of EMS, air medical and trauma facilities.	Average time is 30 minutes or less 80% of the time
Region has provisions in place to promote and educate individuals to provide the brief alcohol screening and intervention for all admitted trauma patients.	70% of the regional trauma centers.
Region has provisions in place to address family / interpersonal violence.	70% of the regional trauma centers have programs in place.
Region has provisions in place to address sexual assault victims.	80% of regional trauma centers have programs in place.
Region has integrated the local Poison Center to define the mortality related poisons, identify street drugs, and potential threats to the region	100% of RACs
Region has established trauma prevention / awareness coalitions to address the top five trauma hospital admission causes and their contributing factors (e.g. alcohol, falls, etc..)	100% of RACs
Region has mechanisms in place to address patient complaints or filed grievances specific to EMS, airmedical and trauma centers.	100% of RACs
Region has a defined mass casualty medical operations response plan.	100% of RACs
Region completes and published annual HVA in February of each year.	100% of RACs
Region has signed mutual sharing by all EMS, air medical and hospital facilities.	100% of RACs
Region has a defined medical operations center that can be mobilized for all full response mass casualty events.	100% of RACs
Region has mechanism in place to review all partial and full response mass casualty events specific to communication, patient dispersal, and outcomes. Outcome review tools and process are standardized.	100% of RACs
Region reviews and revises as necessary the Trauma System Plan every three years.	100% of RACs
Region has a trauma system performance improvement committee and the members have appropriate training on confidentiality and performance improvement.	100% of RACs
Region completes an annual needs assessment.	100% of RACs
Region has mechanisms in place for data analysis and trending.	100% of RACs
Region completes and Annual Report by March of the following year.	100% of RACs

REGIONAL OUTCOME REVIEW PROCESS

Outcome Criteria	Compliance Target
Region reviews the trauma related mortality by field deaths, trauma facility deaths, ISS, age and mechanism of injury quarterly.	Quarterly
Region reviews the trauma related disability quarterly.	Quarterly
Region reviews the trauma center length of stay by levels of trauma facilities and ISS quarterly.	Quarterly
Region reviews the trauma center ICU length of stay by levels of trauma facilities and ISS quarterly.	Quarterly
Region will monitor and track trauma facility transfers due to a lack of trauma facility criteria compliance (lack of services).	Quarterly
Patients that have a GCS of 8 or less will have airway management to ensure the patient's oxygen concentration is 98% or above.	95%
Patients who have RSI in the field will have successful intubation on or before the second attempt.	90%
Pediatric patients (less than 15) with a GCS of 8 or less have airway management to ensure oxygenation of 98% or higher in the field.	95%
Pediatric patients (less than 15) will have successful vascular access established on or before the third attempt.	95%
RAC will monitor the number of patients that are transferred out of the RAC for specialty care or transferred into the RAC for specialty care.	Quarterly
RAC will monitor the transfer coordination center's activity regarding the number transfer calls requested, number of patients transferred, disposition of transfers and timeliness of transfers.	Quarterly
Region will select a minimum of two trauma related complications and monitor for incidence and outcomes annually, with quarterly reports.	Quarterly
Patients with a GCS of 12 or less will have a head CT scan within 30 minutes or arrival at the trauma center or provisions for transfer will be initiated.	95%
Region will have two multidisciplinary conferences annually.	2 per year
Region will define a dashboard report and share with all stakeholders quarterly.	Quarterly
Region will have two defined injury prevention initiatives with a defined plan, objectives, interventions, performance measures and outcome measures with quarterly updates.	Quarterly

