ACS STATE EMS / TRAUMA SYSTEM CONSULTATION
HRSA 2006 MTSP EMS / TRAUMA SYSTEM DEVELOPMENT
American College of Surgeons Optimal Elements, Integration and Assessment System Consultation
Model Trauma System Planning and Evaluation

Benchmarks are global overarching goals, expectations, or outcomes. In the context of the trauma system, a benchmark defines identifies a broad system attribute.

Indicators are tasks or outputs that characterize the benchmark. Indicators identify actions or capabilities within the benchmark and are the measurable components of the benchmark.

Scoring breaks down the indicator into completion steps. Scoring provides an assessment of the current status and marks progress over time toward reaching a defined milestone.

HRSA 2006 Model Trauma System Plan				
OPTIMAL ELEMENTS	State	GETAC	Region	TETAF
Injury Epidemiology				
1. Documented description of the epidemiology of injury in the TSA using population-based data and clinical databases. (B-101)	E		E	
2. Epidemiology of injury mortality in the TSA is defined. (I-101.1)	E		E	
3. Description of injuries in the TSA (I-101.2) Geographic area Urban Suburban Rural Specific populations: Pediatrics (Age less than 15) Geriatrics Morbidly Obese Cultural / ethnic Co-morbidities E-codes: Incidence, prevalence ISS Breakdown Trauma patient distribution Level I Trauma Center Level II Trauma Center Level III Trauma Center Level IV Trauma Center Designated Pediatric Trauma Center Non-Trauma Center Injury data is updated annually.	E		E	
4. Injury mortality is compared. (I-101.3) County level TSA Statewide National	E		E	
5. Injury risk assessment is completed in collaboration with EMS, Public Health, and trauma center leaders. (I-101.4)	E		E	

6. Special-at-risk populations are identified in collaboration with EMS, Public Health and trauma center leaders.(I-101.7)	E		E	
7. Collected data are used to evaluate system performance and develop public policy. (B-205)	E		E	
8. Injury prevention programs use trauma management information system data to develop intervention strategies (I-205.4)	E		E	
9. Trauma, public health and emergency preparedness systems are closely linked. (B-208)	E		E	
10. Trauma system and public health systems have established links: (I-208.1) Population based public health surveillance Evaluation for acute and chronic traumatic injury Injury prevention	E		D	
11. The TSA, in cooperation with other entities uses analytical tools to monitor the performance of population-based prevention and trauma care services. (B-304.1)	E		E	
12. The TSA, along with partner organizations, prepares annual reports on the status on injury prevention and trauma care in the region. (I-304.1)	E		E	
13. The trauma system management information database is available for routine public health surveillance. There is concurrent access to the databases for the purposes of routine surveillance and monitoring of health status and is shared responsibly. (I-304.2)	E		D	
ACS RECOMMENDATIONS ***A1. Coordinate meetings between the DSHS Office of EMS & Trauma Systems, the Regional Advisory Councils and the DSHS Division of Injury Prevention and Preparedness Injury Epidemiologist to evaluate and explore existing datasets to generate trauma data to describe the patterns of injury in Texas.***	**R**		**R**	
B. Prepare a comprehensive biennial state report of the epidemiology of injuries to include age, sex, race, regional patterns, severity, comparison within the state and national data, using all available population-based data.	**R**			
C. Collaborate with the GETAC and Injury Prevention Committee to develop a template for standard regional injury report and provide it to each region on the biennial bases.	**R**	**R**		
D. Create partnerships with Texas Schools of Public Health to obtain data consultation and practicum students to assist with data queries.	**R**		**R**	
E. Consider utilization of the emergency department discharge database.	**R**			
F. Continue to seek authorization to link hospital discharge data with other data sets.	**R**			
G. Identify all injury data resources prepared by the state programs (e.g. Child Fatality Review Team annual reports) or	**R**			

state data available from national data sets (e.g. FARS) and create a linkage to the datasets or injury reports on the state's website home page.				

Indicators as a Tool for System Assessment)	State	GETAC	RAC	TETAF / Other
1. Assurance to constituents that services necessary to achieve agreed-on goals are provided by encouraging actions of others, requiring action through regulation, or providing services directly. (B-300)	State		RAC	
ACS Recommendations **A. Select a reasonable number of indicators form the Model Trauma System Planning and Evaluation document from each of the core public health functions (assessment, policy development, assurance) to develop a measurement tool that can be used consistently by all regional advisory councils (RACS).** • **Use this tool to assist individual RACS, DSHS, and GETAC (GETAC Committees), to establish baseline performance measures and to evaluate changes in RAC maturation over time.**	**R**	**R**		
B. Provide training to TETAF representatives and other interested parties related to the facilitation of the BIS process.	**R**	**R**		**R**
C. Require all RACs to complete a regional assessment with a facilitator using the same set of indicators selected by DSHS from the HRSA MTSP.	**R**	**R**	**R**	
D. Compile data from RAC assessments and require repeated facilitated assessments at specific intervals, (e.g. every 3 years).	**R**	**R**	**R**	

Statutory Authority and Administrative Rules	State	GETAC	RAC	TETAF / Other
1. Comprehensive state statutory authority and administrative rules support trauma system leaders and maintain trauma system infrastructure, planning, and developments. (B-201)	State E		State	
2. The legislative authority states that all the trauma system components, EMS, injury control, incident management, and planning documents work together for the effective implementation of the trauma system. (I-201.2)	State E		State	
3. Administrative rules and regulations direct the development of operational policies and procedures at the state, regional and local levels. (I-201.3)	State E		State	
4. DSHS acts to protect the public welfare by enforcing various laws, rules, and regulations as they pertain to the trauma system. (B-311)	State E		State	
5. Laws, rules, and regulations are routinely reviewed and revised to continually strengthen and improve the trauma system. (I-311.4)	E		E	
ACS Recommendations ***A. Define in code the role of the State Trauma Registrar and how the positions functions within the current organization structure of the lead agency.***	**R**			
B. Comply with the Texas Code 773.113 for the development of a statewide trauma reporting and analysis system.	**R**			
C. Add additional trauma – focused representatives to the GETAC to better reflect trauma system development, (e. g. injury prevention, rehabilitation, trauma program managers).	**R**	**R**		

System Leadership	State	GETAC	RAC	TETAF / Other
1. Trauma system leaders (DSHS, RAC, EMS, trauma center personnel and public health use a process to establish, maintain, and constantly evaluate and improve a comprehensive trauma system in cooperation with medical, professional, governmental, and other citizen organizations (B-202)	E		E	
2. Collected data are used to evaluate system performance and to develop public policy. (B-205)	E		E	
3. Trauma system leaders, including a trauma-specific statewide multidisciplinary, multiagency advisory committee, regularly review system performance reports. (B-206)	E		E	
4. DSHS informs and educates state, regional, and local constituencies and policy makers to foster collaboration for system enhancement and injury control. (B-207)	State E		E	
ACS RECOMMENDATIONS ***A. Re-establish the position and hire a full-time trauma system program manager.*** • ***Successful candidate will have both clinical and programmatic experience.***	**R**			
B. Expand trauma representation on the GETAC.	**R**	**R**		
C. Provide system performance data to GETAC.	**R**		**R**	
D. Lead RACs through trauma system needs assessment, development, and quality improvement activities.	**R**			

Coalition Building and Community Support	State	GETAC	RAC	TETAF / Other
1. (B-207) DSHS informs and educates state, regional, and local constituencies and policy makers to foster collaboration and cooperation for system enhancement and injury control.	State		E	
A. Create a rural standing committee of the Governor's EMS and Trauma Advisory Council (GETAC), and engage the Office of Rural Health to explore issues that cause barriers.	**R**	**R**		
B. Enlist TETAF to develop and provide an educational program aimed at policy makers and regulators of the Texas health insurance industry regarding the scope and financial impact of providing trauma care.	**R**			**R**

Lead Agency and Human Resources	State	GETAC	RAC	TETAF / Other
1. Comprehensive state statutory authority and administrative rules support trauma system leaders and maintain trauma system infrastructure, planning, oversight, and future developments. (B-201)	State			
2. The legislative authority plans, develops, implements, manages and evaluates the trauma system and its component parts, including the identification of the lead agency and the designation of trauma facilities. (I-201.1)	State			
3. The lead agency has adopted clearly defined trauma system standards (for example: facility criteria, triage and transfer guidelines, and data collection standards) and has sufficient legal authority to ensure and enforce compliance. (I-204)	E State			
4.. (B-204)	State			
ACS RECOMMENDATIONS ***A. Analyze the current position functions within the lead agency to identify staffing resources needed to more effectively and efficiently manage the development and implementation of the statewide trauma system.*** • ***Determine if any existing positions should be realigned to needed functions.*** • ***Determine if additional positions are needed.***	**R**			
B. Re-establish the position and hire a full-time trauma system program manager.	**R**			
C. Establish a state trauma medical director position or consultant and clearly define this individual's role.	**R**			
D. redefine the organizational structure of the trauma system program to be programmatic in nature. All components of the EMS and Trauma System should report to the director of the lead agency.	**R**			
E. In the interim, establish an internal agency system integration group to coordinate all trauma system administrative and operational components.	**R**			

Trauma System Plan	State	GETAC	RAC	TETAF / Other
1. The state lead agency has a comprehensive written trauma system plan based on national guidelines. The plan integrates the trauma system with EMS, public health, emergency preparedness, and incident management. The written trauma system plan is written in collaboration with community partners. (B-203)	E		E	
2. The trauma system plan clearly describes the system design (including the components necessary to have an integrated inclusive trauma system) and is used to guide regional system implementation and management. The plan includes references to regulatory standards and documents and includes methods of data collection and analysis. (I-203.4)	E		E	
ACS RECOMMENDATIONS ***A. Update the Strategic Plan for the Texas EMS/Trauma System and formally revisit it on a scheduled basis (e.g. every 3 years).*** • ***Provide for separate sections or separate documents that focus on the specific needs of both EMS and trauma system.*** • ***Integrate public health principles contained in the 2006 MTSP document published by the federal HRSA.*** • ***Assign accountability for the monitoring and completion of the plan to a single agency or entity.*** • ***Align existing resources, fiscal and human, with the priority tasks.*** • ***Develop all objectives, strategies, and tasks in a measurable and time referenced framework with specific agencies, entities or individuals assigned to each process.***	**R**	**R**		

System Integration	State	GETAC	RAC	Other
1. The state lead agency has a comprehensive written trauma system plan based on national guidelines. The plan integrates the trauma system with EMS, public health, emergency preparedness, and incident management. The written trauma system plan is written in collaboration with community partners. (B-203)	State E		E	
2. The trauma system plan clearly describes the system design (including the components necessary to have an integrated inclusive trauma system) and is used to guide regional system implementation and management. The plan includes references to regulatory standards and documents and includes methods of data collection and analysis. (I-203.4)	State E		E	
3. The trauma, public health, and emergency preparedness Systems are closely linked. (B-208)	E		E	
ACS RECOMMENDATIONS ***A. Encourage RACs to establish more formal linkages with schools of public health for collaborative efforts in injury prevention and research.***	**R**		**R**	
B. Recognize and continue support for the excellent collaboration – at all levels – between the trauma and emergency preparedness communities.	**R**		**R**	
C. Increase opportunities for RACS to share best practices.	**R**		**R**	

Financing	State	GETAC	RAC	TETAF / Other
1. Sufficient resources, including financial and infrastructure - related, support system planning, implementation and maintenance. (B-204)	State E		E	
2. Financial resources exist that support the planning, implementation, and on-going management of the administration and clinical care components of the trauma system. (I-204.2)	E		E	
3. Designated funding for trauma system infrastructure support is legislatively appropriated. (I-204.4)	State E		E	
4. Operational budgets (system, facilities, and EMS administrative and operational budgets) are aligned with the trauma system plan and priorities. (I-204.4)	E State		E	
5. The financial aspects of the trauma system are integrated into the overall performance improvement system to ensure on-going fine-tuning and cost-effectiveness. (B-309)	State E		E	
6. Collection and reimbursement data are submitted by each agency or institution on at least an annual basis. Common definitions exist for collection and reimbursement data and are submitted by each agency. (I-309.2)	E		D	
ACS RECOMMENDATIONS ***A. Develop a vision and strategy to identify and capitalize on all available revenue resources to support, enhance, and sustain the trauma system.***	**E**			
B. Conduct an assessment of the total costs associated with the operation of the trauma and emergency care system, including the infrastructure management.	**E**			
C. Combine additional revenue sources where possible that support the trauma program to include the Assistant Secretary for Preparedness and Response Hospital Preparedness funding, Department of Transportation Highway Safety funding, and others identified in the assessment.	**E**			
D. Continue to collaborate with other agencies and private foundations to identify additional funding sources, (e.g. the Rural Hospital Flexibility Grant for critical access hospitals and rural EMS agencies).	**E**	**E**	**E**	**E**

Prevention and Outreach	State	GETAC	RAC	TETAF / Other
1. The lead agency informs and educates state, regional, and local constituencies and policy makers to foster collaboration and cooperation for system enhancement and injury control. (B-207)	State		E	
2. The trauma system leaders inform and educate constituencies and policy makers through community development activities, targeted media messaging, and active collaboration aimed at injury prevention and trauma system development. (I-207.2)	E		E	
3. The lead agency, in cooperation with other agencies and organizations, uses analytical tools to monitor the performance of population-based prevention and trauma care services. (B-304)	E		E	
4. The lead agency, along with partner organizations, prepares annual reports on the status of injury prevention and trauma care in the state, region and local areas. (I-304.1)	E		E	
5. The lead agency ensures that the trauma system demonstrates prevention and medical outreach activities within its defined service area. (B-306)	E		E	
6. The trauma system is active within its jurisdiction in the evaluation of community-based activities, injury prevention and response programs. (I-306.2)	E		E	
7. The impact and outcomes of the outreach programs is evaluated as part of a system performance improvement process. (I-306.3)	E		E	
ACS RECOMMENDATONS ***A. Identify a representative from Office of EMS and Trauma Systems to actively participate and assume a leadership role in the DSHS Tier 1 priority injury and violence initiative.***	**R**			
B. Revise the GETAC Injury Prevention plan to identify to identify Texas-specific injury mechanisms priorities and evidence-based intervention strategies that should be the future focus for the RAC's injury prevention program implementation. • ***Encourage the RACs to select from the priority injury mechanisms and recommended interventions for their annual injury prevention programs.*** • ***Encourage the RACs to integrate a plan for evaluation into their annual injury prevention program and to report the outcomes based on that evaluation plan.***	**R**		**R**	
C. Widely disseminate information to the RACs and injury prevention stakeholders abut the tend evidence-based injury prevention strategies compiled by TETAF's Injury Prevention	**R**	**R**	**R**	**R**

Division.				
D. Continue the implementation of the State and Territorial Injury Prevention Directors Association assessment recommendations.	**R**			

Emergency Medical Services	State	GETAC	RAC	TETAF / Other
1. The trauma system is supported by EMS systems that include communication, medical oversight, prehospital triage, and transportation; the trauma system, EMS, and public health are well integrated.	State E		E	
2. There is well-defined trauma system medical oversight integrating the specialty needs of the trauma system with the medical oversight for the overall EMS system. (I-302.2)	E		E	
3. There is a clearly defined, cooperative, and ongoing relationship between the trauma specialty physician leaders and the EMS system medical directors. (I-302.2)	E		E	
4. There is clear-cut legal authority and responsibility and for the EMS system medical director, including authority to adopt protocols, to implement a performance improvement system, to restrict the practice of prehospital providers, and to generally ensure medical appropriateness of the EMS system. (-302.4)	E		D	
5. The trauma system medical director is actively involved with the development, implementation, and ongoing evaluation of system dispatch protocols to ensure they are congruent with the trauma system design. These protocols include but are not limited to, which resource to dispatch, (example: ALS verses BLS), air-ground coordination, early notification of the trauma care facility, prearrival instructions, and other procedures necessary to ensure that resources dispatched are consistent with the needs of the injured patient. (I-302.4)	E		E	
6. The retrospective medical oversight of the EMS system for trauma triage, communications, treatment, and transport is closely coordinated with the established performance improvement process of the trauma system. (I-302.5)	Ee		E	
7. There is a universal access number for citizens to access the EMS/trauma system, with dispatch appropriate medical resources. There is a central communication system for the EMS/trauma system to ensure field-to-facility bidirectional communication, interfacility dialogue, and all-hazards response communications among all system participants. (I-302.7)	E		E	
8. There are sufficient and well-coordinated transportation resources to ensure that EMS providers arrive at the scene promptly and expeditiously transport the patient to the correct hospital by the correct transportation mode. (I-302.8)	E		E	
9. The lead trauma authority ensures a competent workforce. (B-310)	E			

10. In cooperation with the prehospital certification and licensure authority, set guidelines for prehospital personnel for initial and ongoing trauma training, including trauma-specific courses and courses that are readily available throughout the state. (I-310.1)	E		D	
11. In cooperation with the prehospital certification and licensure authority, ensure that prehospital personnel who routinely provide care to trauma patients have a current trauma training certificate, for example, Prehospital Trauma Life Support or Basic Trauma Life Support and others, or that trauma training needs are driven by the performance improvement process. (I-310.2)	E		D	
12. Conduct at least one multidisciplinary trauma conference annually that encourages system and team approaches to trauma care. (I-310.9)	E		E	
13. The lead agency acts to protect the public welfare by enforcing various laws, rules, and regulations as they pertain to the trauma system. (B-311)	E		D	
14. Incentives are provided to individuals agencies and institutions to seek state or nationally recognized accreditation in areas that will contribute to overall improvement across the trauma system. Commission on Accreditation of Ambulance Service council of Allied Health Education Accreditation American College of Surgeons Trauma Facility Verification	E		D	
ACS RECOMMENDATIONS ***A. Commit the necessary resources to ensure development and maintenance of a reliable statewide EMS information system.*** • ***Ensure that the information system provides meaningful back to users and facilitates system-wide evaluations.***	**R**			
B. Designate a state EMS medical director through an appointment or contractual relationship. • ***The state Ems medical director role should be to advise DSHS staff, provide strategic direction, and serve as a resource for regional and local EMS medical directors and system administrators in the state.***	**R**			
C. Require each RAC to designate a regional EMS medical director to provide coordination, serve as a resource, support regional performance improvement, and maintain an accurate roster of all local EMS medical directors in the trauma service area.	**R**		**R**	
D. Establish the minimum standard for EMS Service that shall be available for each resident throughout all areas of Texas.	**R**		**R**	
E. Conduct community assessments to identify gaps in access to	**R**			

EMS and implement plans to close gaps.				
F. Conduct a workforce assessment to determine the geographic distribution of Ems personnel, identify opportunities for human resource development, and facilitate implementation of plans to expand availability of EMS.	**R**			
G. Commit to a National Highway Traffic Safety Administration led EMS re-assessment with tin the next 24 months.	**R**			

Definitive Care Facilities	State	GETAC	RAC	TETAF / Other
1. Acute care facilities are integrated into a resource - efficient, inclusive network that meets required standards and that provides optimal care for all injured patients.	E		E	
2. The trauma system plan has clearly defined the roles and responsibilities of all acute care facilities treating trauma and of facilities that provide care to specialty populations.	E		E	
3. To maintain its state, regional, or local designation each hospital will continually work to improve the trauma care as measured by patient outcomes. (B-307)	E HTD		HTD	
4. The trauma system engages in regular evaluation of all licensed acute care facilities that provide trauma care to trauma patients and of designated trauma hospitals. Such evaluations will involve external reviews. (I-307.1)	E HTD		HTD	
5. The lead trauma authority ensures a competent workforce. (B-310).	E HTD		HTD	
6. As part of the established standards, set appropriate levels of trauma training for nursing personnel who routinely care for trauma patients in acute care facilities. (I-310.3)	State		HTD	
7. Ensure that appropriate, approved trauma training courses are provided for nursing personnel on a regular basis. (I-310.4)	E HTD		HTD	
8. In cooperation with the nursing licensure authority, ensure that all nursing personnel who routinely provide care to trauma patients have trauma training certification (for example: Advanced Trauma Care for Nurses or Trauma Nurses Core Courses, or any national or state trauma nurse verification course.) As an alternate after initial trauma course completion, training can be driven by the performance improvement process. (I-310.5)	E HTD		HTD	
9. In cooperation with the physician licensure authority, ensure that the physicians who routinely provide care to trauma patients have a current trauma training certificate of completion, for example, Advanced Trauma Life Support (ALTS) and others. As an alternative, physicians may maintain trauma competence through continuing medical education programs after initial ATLS completion (I-310.8)	E HTD		HTD	
10. Conduct at least one multidisciplinary trauma conference annually that encourages system and team approaches to trauma care. (I-310.9)	E		E	
11. As new protocols and treatment approaches are instituted within the system, structured mechanisms are in place to inform all personnel about the changes in a timely manner. (I-310.10)	E		E	

ACS RECOMMENDATIONS ***A. Identify a strategy for development of an inclusive and integrated trauma system involving all acute care facilities and begin its implementation.***	**R**			
B. Collaborate with Office of Rural Health, as well as other sources of funding, to support trauma center designation of Critical Access Hospitals (CAH).	**R**			
C. Consider seeking legislation to authorize the introduction of level V trauma center status for emergency care free-standing facilities.	**R**			
D. Develop a plan to match trauma center availability with patient needs in both underserved and potentially oversaturated areas.	**R**			
E. Encourage designated trauma centers to participate in the trauma system at the highest level commensurate with their resources and local trauma needs.	**R**			
F. Develop a process to evaluate the pediatric capabilities of level III and Level IV trauma centers that provide care for children.	**R**			
G. Establish additional trauma center resources in the Houston-Galveston area ensuring adequate patient volume to maintain quality of trauma care and financial viability of each designated trauma center.	**R**			

System Coordination and Patient Flow	State	GETAC	RAC	TETAF / Other
1. The trauma system is supported by an EMS system that includes communications, medical oversight, prehospital triage, and transportation; the trauma system, EMS system, and public health agency are well integrated. (B-301)	E		E	
2. There are mandatory system-wide prehospital triage criteria to ensure that trauma patients are transported to an appropriate facility based on their injuries. These triage criteria are regularly evaluated and updated to ensure acceptable and system-defined rates of sensitivity and specificity for appropriately indentifying a major trauma patient. (I-302.6)	E		E	
3. There is a universal access number for citizens to access the EMS / trauma system, with dispatch of appropriate medical resources. There is a central communication system for EMS / trauma system to ensure field -to -facility bidirectional communications, interfacility dialogue, and all-hazards response communications among all system participants. (I-302.7)	E		E	
4. There is a procedure for communications among medical facilities when arranging for interfacility transfers, including contingencies for radio and telephone system failure. (I-302.9)	E		E	
5. Acute care facilities are integrated into a resource-efficient inclusive network that meets required standards and that provides optimal care for all injured patients. (B-303)	E		E	
6. When injured patients arrive at a medical facility that cannot provide the appropriate level of definitive care, there is an organized and regulatory system to ensure that the patients are expeditiously transferred to appropriate system-defined trauma facilities. (I-303.4)	E		E	
ACS RECOMMENATIONS ***A. Collate Regional Advisory Council information to identify instances fo failed or delayed interfacility transfer for all trauma patients with an emphasis on special populations (e. g. pediatric, spinal cord injury, and traumatic brain injury).***	**R**		**R**	
B. Conduct a survey utilizing the RACs to determine if trauma bed availability is adequate to meet system needs with emphasis on pediatric and special populations.	**R**		**R**	
C. Consider changing state regulations to ensure that ALL hospitals participate at some level within the Texas trauma system. • ***This may involve designation at an appropriate level or participating by providing initial resuscitation and***	**R**			

stabilization to moderately and severely injured patients followed by transfer, as well as submitting a minimal set of data to the state trauma registry.				
D. Conduct discussion among appropriate stakeholders in each RAC to determine the appropriate destination of the injured adolescent.	**R**		**R**	
E. Develop an appropriate forum for discussion and management of issues related to trauma patients that are transferred across state lines, including monitoring quality of care, reimbursement, and repatriation.	**R**		**R**	

Rehabilitation	State	GETAC	RAC	TETAF / Other
1. The lead agency ensures that adequate rehabilitation facilities have been integrated into the trauma system and that these resources are made available to all populations requiring them. (B-308)	E			
2. The lead agency has incorporated, within the trauma system plan and the trauma center standards, requirements for rehabilitation services, including transfer of trauma patients to rehabilitation facilities. (I-308-1)	E			
3. Rehabilitation centers and outpatient rehabilitation services provide data on trauma patients to the central trauma system registry that includes final disposition, functional outcome, and rehabilitation cost and also participate in performance improvement process. (I-308.2)	E			
4. A resource assessment for the trauma system has been completed and is regularly updated. (B-103)	E		E	
5. The trauma system has completed a comprehensive system status inventory that identifies the availability and distribution of current capabilities and resources. (I-103.1)	E		E	
ACS RECOMMENDATIONS ***A. Develop a rehabilitation committee of GETAC.***	**R**	**R**		
B. Determine if a significant delay in transfer of patients to rehabilitation facilities exists and if this contributes to trauma center diversion statewide.	**R**		**R**	
C. Determine if the number of rehabilitation beds available is sufficient to meet needs of the trauma patients with special attention given to pediatric, spinal cord injury, traumatic brain injury, and ventilator-dependent patients.	**R**		**R**	
D. Consider the inclusion of designated rehabilitation centers for uncompensated care reimbursement eligibility under the trauma fund if delay in appropriate transfer to rehabilitation is confirmed for uninsured trauma patients.	**R**			

Disaster Preparedness	State	GETAC	RAC	TETAF/ Other
1. An assessment of the trauma system's emergency preparedness has been completed, including coordination with the public health agency, EMS system, and the Emergency Management system. (B-104)	E		E	
2. There is a resource assessment of the trauma system's ability to expand its capacity to response to MCIs in an all hazard approach. (I-104.1)	E		E	
3. There has been a consultation by external experts to assist in identifying current status and needs of the trauma system to be able to respond to MCIs. (I-104.2)	E		E	
4. The trauma system has completed gap analysis based on the resource assessment for trauma emergency preparedness. (I-104.3)	E		E	
5. The lead agency ensures that its trauma system plan is integrated with, and complementary to, the comprehensive mass casualty plan for natural and manmade incidents, including an all-hazards approach to planning and operations. (B-305)	E		E	
6. The EMS, trauma system and the all-hazards medical response system have operational trauma and all-hazards response plans and have established an ongoing cooperative working relationship to ensure trauma system readiness for all-hazards events. (I-305.1)	E		E	
7. All-hazards events routinely include situations involving natural, unintentional, and intentional trauma-producing events that test the expanded response capabilities and surge capacity of the trauma system. (I-305.2)	E		E	
8. The trauma system, through the lead agency, has access to additional equipment, materials, and personnel for large-scale traumatic event. (I-305.3)	E		E	
ACS RECOMMENDATIONS ***A. Ensure that RACs integrate a mass casualty incident disaster plan with their regional trauma plans through the state contracts and desktop audit tool.***	**R**			
B. Continue efforts to provide training for full utilization of the WEBEOC capabilities.	**R**		**R**	
C. See opportunities to utilize incident management software on a daily basis to increase personnel familiarization with system capabilities.	**R**		**R**	
D. With RAC input, establish a statewide guideline for mass casualty disaster triage, and provide education and materials to support implementation.	**R**		**R**	
E. Complete the development of a statewide inventory of medical				

assets.				
F. Continue to implement a consistent and statewide system to track patients (e.g., radio –frequency identification bands for inter-facility transfers.)	**R**		**R**	
G. Assess the timeliness and accuracy of data entered in to the EMSystems.	**R**		**R**	

System-wide Evaluation and Performance Improvement	State	GETAC	RAC	TETAF/ Other
1. The trauma management information system is used to facilitate ongoing assessment and assurance of system performance and outcomes and provides a basis for continuously improving the trauma system, including the cost-benefit analysis. (B-301)	E		E	
2. The lead trauma authority ensures that each member hospital /EMS of the trauma system collects and uses patient data, as well as provider data, to assess system performance and to improve quality of care. Assessment data are routinely submitted to the lead trauma authority. (I-301.1)	E			
3. The jurisdictional lead agency, in cooperation with the other agencies and organizations, uses analytic tools to monitor the performance of population-based prevention and trauma care services. (B-304)	E			
4. The financial aspects of the trauma system are integrated into the overall ongoing fine-tuning and cost-effectiveness. (B-309)	E		E	
5. Financial data are combined with other cost, outcome, or surrogate measures, for example, years of potential life lost, quality-adjusted life years, and disability-adjusted life years; length of stay; length of intensive care unit stay; number of ventilator days; and others to estimate and track true system costs and cost-benefits. (I-309.4)	E		E	
ACS RECOMMENDATIONS ***A. Develop a statewide trauma system performance improvement plan and implement it.*** • ***Engage as many stakeholders as possible in the development and implementation of the performance improvement plan.***	**R**		**R**	
B. Establish minimum state performance improvement audit filters to adequately evaluate the trauma process and outcomes statewide, including filters for special populations (pediatrics, spinal cord injury, traumatic brain injury).	**R**		**R**	
C. Identify staffing and funding resources at the state level to provide leadership and sustainability for the implementation of the state trauma system evaluation and performance improvement process.	**R**		**R**	
D. Indentify staffing and funding resources at the state level to provide leadership and sustainability for the implementation of the state trauma system evaluation and performance improvement process.	**R**		**R**	
E. Establish a performance improvement committee of the Governor's EMS and Trauma Advisory Council.	**R**	**R**	**R**	

F. Identify staffing and funding resources at the state level to provide leadership and sustainability for the implementation of the trauma performance improvement process.	**R**		**R**	
G. Ensure that the state trauma system performance improvement process, as well as performance measures, are inclusive of the continuum of care provided by dispatch, emergency medical services, acute care facilities, trauma centers, and specialty care facilities including rehabilitation.	**R**		**R**	
H. Encourage Regional Advisory Councils (RACs) to collaborate with other RACs based upon referral patterns to support state trauma performance improvement implementation.	**R**		**R**	

Trauma Management Information System (TMIS)	State	GETAC	RAC	TETAF / Other
1. There is an established trauma TMIS for ongoing injury surveillance and system performance assessment. (B-102)	E		E	
2. There is an established injury surveillance process that can in part, be used as an MIS performance measure. (I-102.1)	E		E	
3. Injury surveillance is coordinated with statewide and local community health surveillance. (I-102.2)	E		E	
4. There is a process to evaluate the quality, timeliness, completeness, and confidentiality of data. (I-102.4)	E		E	
5. There is an established method of collecting trauma financial data from all health care facilities/EMS agencies, and trauma agencies, including patient charges and administrative/system costs. (I-102.5)	E		E	
6. The TMIS is used to facilitate ongoing assessment and assurance of system performance and outcomes and provides a basis for continuously improving the trauma system, including a cost-benefit analysis. (B-301)	E		E	
7. The lead trauma authority ensures that each member Hospital/EMS of the trauma system collects and uses Patient data, as well as provider data, to assess system Performance and to improve quality of care. Assessment Data are routinely submitted to the lead trauma authority. (I-301.2)	E		D	
8. Prehospital care providers collect patient care and administrative data for each episode of care and have a mechanism to evaluate the data with their medical director within their own agency, including monitoring trends and system performance.	E		E	
9. The trauma registry, non-trauma center ED, prehospital, rehabilitation, and other databases are linked or combined to create a trauma system registry. (I-301.3)	E		E	
10. The lead agency has available for use the latest in computer technology advances and analytic tools for monitoring injury prevention and control components of the trauma system. There is reporting on the outcome of implemented strategies for injury prevention and control programs with-in the trauma system. (1-301.4)	E		E	
ACS RECOMMENDATIONS ***A. Continue to actively pursue the purchase, installation, and roll-out of a trauma registry (National Trauma Data Standards compliant) and an EMS Information System (National EMS Information System compliant).*** • ***Convene a work group to develop a plan for the***	**R**		**R**	

management and maintenance of new software solutions that focus on long-term stability of the new system. • ***Field test and roll-out the software solutions as soon as possible.***				
B. Concurrent with data submission, create a structured and standardized reporting schedule, recognizing that there may be an early period of questionable data validity as the new data system is implemented.	**R**			

Research	State	GETAC	RAC	TETAF / Other
1. The TMIS is used to facilitate ongoing assessment and assurance of system performance and outcomes and provides a basis for continuously improving the trauma system, including a cost-benefit analysis. (B-301)	E		E	
2. The lead agency has available for use of the latest in computer technology advances and analytic tools for monitoring injury prevention and control components of the trauma system. There is reporting on the outcome of implemented strategies for injury prevention and control programs within the trauma system. (I-301.4)	E		E	
3. The lead agency ensures that the trauma system demonstrates prevention and medical outreach activities within its defined service area. (B-306)	E		E	
4. The trauma system has developed mechanisms to engage the general medical community and other system participants in their research findings and performance efforts. (I-306.1)	E		E	
5. The effect or impact of outreach programs (medical community training/support and prevention activities) is evaluated as part of a system performance improvement process.	E		E	
6. To maintain its state, regional, or local designation, each hospital/EMS will continually work to improve the trauma care as measured by patient outcomes. (B-307)	E		E	
7. The trauma system implements and regularly reviews a standardized report on patient care outcomes as measured against national norms.	E		E	
ACS RECOMMENDATIONS ***A. Develop a trauma system research collaborative, including the state's academic institutions and trauma system stakeholders.***	**R**			
B. Develop and pursuer a trauma systems research agenda.	**R**			
C. Support, on a continual basis, at least one large-scale trauma systems research initiative.	**R**			