Alabama Trauma System QI
Workgroup Meeting Minutes
October 7, 2008 10:00 a.m. - 1:00 p.m.
BREMSS

In Attendance: Geni Smith, Alex Franklin, Verla Thomas, Tammie Yeldell, Robin Moore, Joe Acker, Michael Minor, Adam Robertson, Dr. Campbell, Choona Lang

Not in Attendance: Beth Anderson, Spencer Howard, Dr. Crawford

Choona opened the meeting with a welcome and recap of the last meeting minutes.

Trauma System Update

Dr. Campbell gave a brief review of discussion from the STAC meeting that was held October 6.

- Voted on the Proxy for the RTAC
- Reviewed the appointee list for the RTAC
- Added two pediatric doctors to the RTAC and Pediatric Workgroup Dr. James Gilbert (North) and Dr. Celeste Holland (Gulf)
- Reviewed the meeting schedule for RTAC
- Reviewed the Trauma Plan template for the regions

Trauma Registry Update/DI Software update

Verla gave a brief review of the criteria that will be required into the Trauma Registry.

- Shaken Infant syndrome (995.55) was delete as a requirement
- Late effects (905-909) was added back as a requirement by the STAC

(The injury criteria was added to the Trauma Rules)

Software testing from DI will take place January 2009, starting with local hospitals (Baptist South being one of the hospitals). Training sessions will not take place until the software has been tested.
(See attachment doc 1)

Benchmark Report update

Robin gave a brief update of his continue work on the Benchmark Report. Once the document is finished it will be presented to the STAC.
(See attachment doc 2)

Trauma Rules I Confidentiality Section

Work is in progress on ensuring protection for all individuals on the QI committee pertaining to confidential information being discussed at the meeting.

Trauma QI Flow

The following forms below were reviewed:

- Alabama Trauma System QI Plan Process (doc 3)
- QI Plan Process (doc 4)
- Trauma System Issue Tracking Log (doc 5)

Each from is attached with recommended changes.

BREMSS Update

Joe gave a brief update of the trauma system in BREMSS with a power point presentation. (See attachment doc 6)

NATS Update

Alex gave a brief update of the trauma system in North. Alex will also compile a report of all information received in North as what reports should the State receive from the Regions, according to the report given by Tammie. (See attachment draft doc 7)

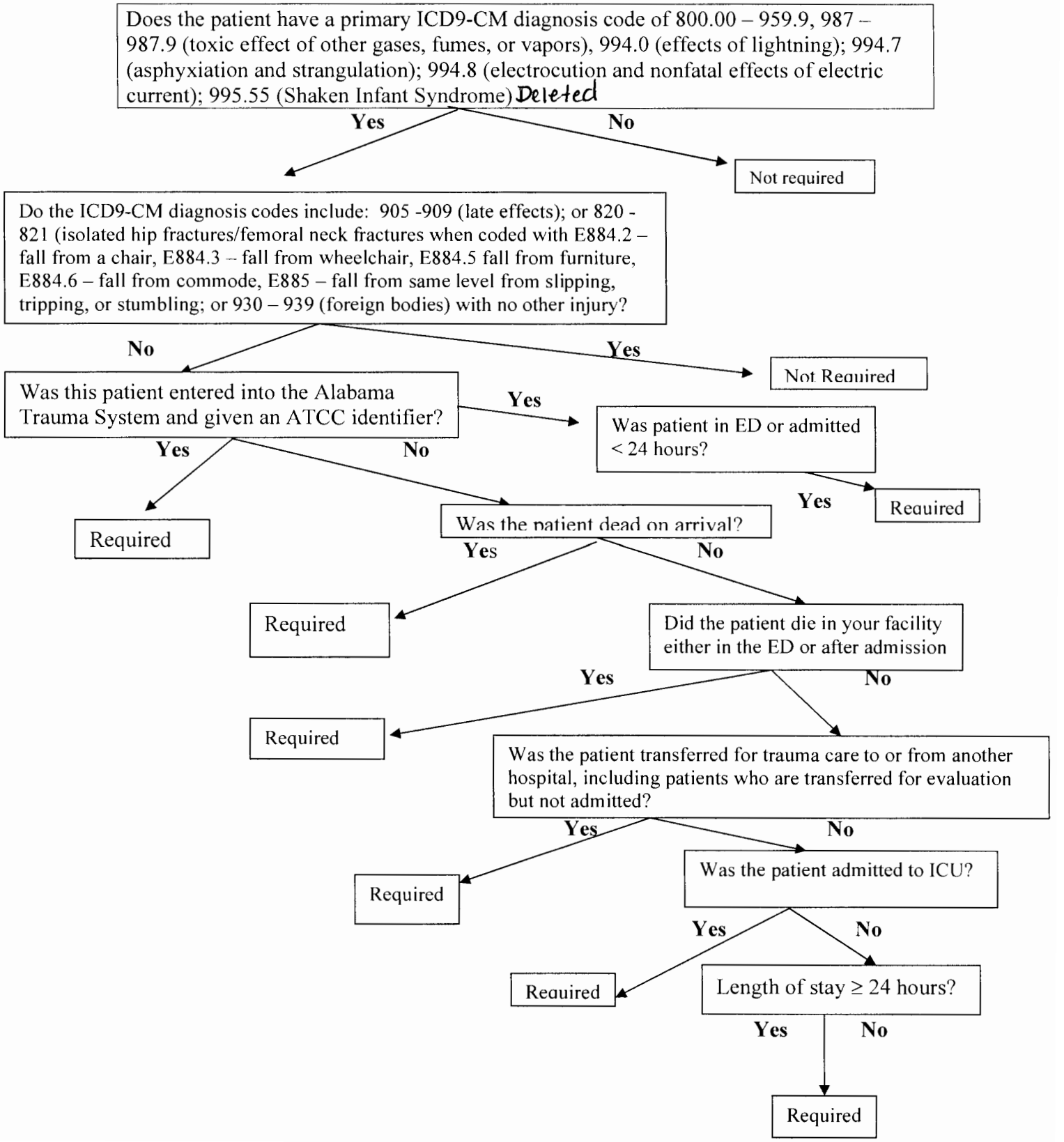
Next Meeting

November 19, 2008 10:00 a.m. Office of EMS & Trauma Conference Room

Meeting Adjourn 2:00 p.m.

DOC 1

Alabama Trauma Registry Inclusion Criteria



DOC. 2

Alabama Trauma System Planning, Development and Evaluation 2008

INTRODUCTION

The Alabama Trauma System uses the U.S. Department of Health and Human Services "Model Trauma System Planning and Evaluation 2006" as a basis in designing this tool for assessment of the current status of trauma care and to provide guidance on future system enhancements.

Using the public health system model to provide a conceptual framework for trauma system development, management, and on-going performance improvement should yield the necessary improvements in trauma care to reduce morbidity and mortality from traumatic injury. The system model is based on the concept that injury is a disease that can be prevented or its negative impacts reduced, or both, by primary, secondary, and/or tertiary prevention efforts. These actions are similar to actions taken to reduce morbidity and mortality of infectious diseases.

The three core functions of public health services are:

- Assessment is the regular and systematic collection and analysis of data from a variety of sources to determine the status and cause of a problem and to identify potential opportunities for intervention.
- Policy development uses the results of the assessment in an organized manner to establish comprehensive policies intended to improve the public's health.
- Assurance to constituents that services necessary to achieve agreed-on goals are provided by encouraging actions of others (public or private), requiring action through regulation, or providing services directly.

This document, Alabama Trauma System Planning, Development and Evaluation, is a tool, referred to as the BIS (benchmarks, indicators, and scoring), which serves to allow responsible personnel within the Alabama Trauma System to identify gaps in the System and monitor their progress over time. The components of the BIS defined are as follows:

- ***Benchmarks*** are global overarching goals, expectations, or outcomes. In the context of a trauma system, a benchmark identifies a broad system attribute.
- ***Indicators*** are tasks or outputs that characterize the benchmark. Indicators identify actions or capacities within the benchmark that 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 certain milestone.

Proper application of the principles outlined in this document will provide assurance to stakeholders, most particularly the policy makers and citizens of the state of Alabama, that the Alabama Trauma System is an effective, state-of-the-art operation which reduces the burden of traumatic morbidity and mortality within the state.

I. Assessment. *Regular systematic collection, assembly, and dissemination of information on the health of the community.*

Benchmark

101. **There is an accurate description of the epidemiology of trauma in the state using population-based data.**

Essential service: *Monitor Health*
Indicator:
101.1 There is an accurate description of the epidemiology of trauma mortality in the state using population based data.
Scoring:

0 Not known
1 There is no accurate description of the epidemiology of injury mortality in the state.
2 Death certificate data have been used to describe statewide incidence of trauma deaths aggregating all etiologies but no E-code reporting is available.
3 Death certificate data, by E-code, are reported on a statewide basis but are not reported by sub-state jurisdiction.
4 Death certificate data, by E-code, are reported on a statewide and sub-state basis.
5 Death certificate data, by E-code, are used as part of the overall assessment of trauma care in a state or sub-state district, including statewide rural and urban preventable mortality studies.

Essential service: *Monitor Health*
Indicator:
101.2 There is a description of traumatic injuries in the state including the distribution by geographic area, high-risk populations (pediatric, elderly, distinct cultural/ethnic, rural, and possibly others), incidence, mechanism, manner, intent, contributing factors, injury severity using Injury Severity Score (ISS) where possible and patient distribution using any or all of the following: vital statistics, emergency department (ED) data, EMS data, public safety data, medical examiner data, trauma registry, and other data sources. The description is updated at regular intervals.
Scoring:

0 Not known
1 There is no written description of the epidemiology of traumatic injuries in the state
2 One or more population-based data sources (e.g. vital statistics and medical examiner data) describe traumatic injury in the state but no clinical sources are used.
3 One or more population-based data sources and one or more clinical data sources are used to describe traumatic injury in the state.
4 Multiple population-based and clinical data sources are used to describe traumatic injury within the state and the system is systematically updated at regular intervals.
5 Multiple population-based and clinical data sources (e.g. trauma registries, ED data, and others) are electronically linked and used to describe traumatic injury within the state.

Essential Service: *Monitor Health*
Indicator:
101.3 There is a description of injury mortality using county, regional, statewide, and national data.
Scoring:
0 Not known
1 There is no written comparison of traumatic injury mortality using county, regional, statewide, and national data.
2 There is a written descriptive comparison of at least the leading cause of traumatic injury death using county, regional, and statewide data.
3 There is a written descriptive, graphic, and tabular comparison of the leading cause of traumatic injury death using county, regional, statewide, and national data.
4 There is a written, descriptive, graphic, and tabular comparison of the top three leading causes of traumatic injury death using county, regional, statewide, and national data.
5 There is a written descriptive, graphic, and tabular comparison of the top ten causes of traumatic injury death using county, regional, statewide, and national data.

Benchmark

***102.* There is an established trauma management information system (MIS) for on-going injury surveillance and system performance assessment.**

Essential service: *Monitor Health*
Indicator:
102.1 There is an established injury surveillance process that can, in part, be used as an MIS performance measure.
Scoring:
0 Not known
1 There is no established system-wide injury surveillance process.
2 There is a system-wide trauma registry, but not all hospitals in the state contribute to the trauma management information system.
3 There is a system-wide trauma registry with all hospitals in the service area contributing data.
4 The system-wide trauma registry data are bolstered by one or more of the following databases: EMS data system, ED data system, or hospital discharge data.
5 The Alabama Trauma Registry (ATR), EMS data system, ED data system, hospital discharge data, rehabilitation, and burn data system are accessible, electronically linked, and have consistent data definitions and elements. The data are used for both injury and MIS performance measures.

Essential service: *Monitor Health*
Indicator:
102.2 Trauma data are electronically linked to the ATR from a variety of sources.
Scoring:
0 Not known.
1 Trauma Registry exists but not deterministically or probabilistically linked to other databases.
2 Trauma Registry data are deterministically linked through hand-sorting processes.
3 Trauma Registry data are deterministically linked through computer-matching processes.
4 Trauma Registry data are deterministically and probabilistically linked to at least one other trauma or injury database including: EMS data systems, ED data systems, hospital discharge data (HDD), and others.
5 All data stakeholders (insurance carriers, FARS, and rehabilitation, in addition to typical trauma system resources) have been identified, data access agreements executed, hardware and software resources secured, and the manpower designated to deterministically and probabilistically link, analyze, and report a variety of data sources in a timely manner.

Essential service: *Monitor Health*
Indicator:
102.3 There is a process to evaluate the quality, timeliness, completeness, and confidentiality of the data.
Scoring:
0 Not known.
1 There is no process or written policy to evaluate the quality, timeliness, completeness, and confidentiality of the data collected in the system.
2 There is a process of evaluation and written policy but no compliance with governance. Confidentiality of information is not insured.
3 The process of reviewing the quality, timeliness, completeness, and confidentiality of data is just beginning. There is some compliance with a draft written policy.
4 There are draft written policies in place for evaluating the quality, timeliness, and completeness of data and for ensuring its confidentiality.
5 There is a comprehensive written policy and demonstrated compliance concerning data management and governance including an evaluation of the quality, timeliness, and completeness of data, with confidential protection of records ensured while allowing appropriate access for research purposes.

Essential service*: Monitor Health*
Indicator:
102.4 There is an established method of collecting trauma financial data from all health care facilities and trauma agencies including patient charges as well as administrative and system costs.
Scoring:
0 Not known
1 Financial data are not collected as part of the AL Trauma System (ATS).
2 Financial data are collected as part of the ATS at individual facilities but are not reported to the ATR.
3 Financial data are collected as part of the ATR and are analyzed and reported by the l.
4 Financial data from the ATR are linked with at least one other source of cost data such as hospital discharge data (HDD).
5 Financial data are linked and analyzed from the ATR, insurers, emergency departments, EMS agencies, HDD, and rehabilitation facilities and are compared with the general trauma system infrastructure costs to establish the general financial health of the system and its value to the community.

Benchmark

***103.* A resource assessment for the trauma system has been completed and is regularly updated**.

Essential Service**:** *Monitor health.*
Indicator:
103.1 The trauma system has completed a comprehensive system status inventory that identifies the availability and distribution of current capabilities and resources.
Scoring:
0 Not known.
1 There is no statewide resource assessment.
2 A state resource assessment has been completed that documents the frequency and distribution of resources for at least two of the following categories: pre-hospital and hospital personnel, education programs, facilities, and pre-hospital equipment.
3 A state resource assessment has been completed that documents the frequency and distribution of resources for more than two of the following categories: leadership, system development, legislation, finances, injury prevention, workforce resources, education, EMS, transport, communications, trauma care facilities, inter-facility transfer, medical rehabilitation,, information systems, medical oversight, system evaluation, performance improvement, and research.
4 A trauma region-specific resource assessment has been completed for at least half of the trauma regions.
5 Trauma region-specific resource assessments have been completed for the state and regional areas and are updated at least biennially.

Essential Service: *System Management.*
Indicator:
103.2 The trauma system has completed a gap analysis based on the inventories of internal and external system status as well as system resource standards.
Scoring:

0 Not known.
1 There are no resource standards on which to base a gap analysis.
2 The State Trauma Advisory Committee (STAC) has begun to develop statewide trauma system resource standards so that a gap analysis can be completed.
3 ATS resource standards have been approved by the appropriate approving authority.
4 A gap analysis of ATS resources has been completed for the entire state based on the system resource standards adopted.
5 A gap analysis of ATS resources has been completed for the entire state and is updated at regular intervals based on the trauma resource standards in place.

Essential Service: *System Management.*
Indicator:
103.3 There has been an initial assessment and periodic reassessment of overall system effectiveness.
Scoring:

0 Not known.
1 No preventable mortality estimate has been conducted on a statewide basis.
2 A statewide preventable mortality estimate has been completed.
3 A statewide preventable mortality study that includes rates, frequencies, and types of inappropriate care rendered within the hospitals participating in the trauma system has been conducted.
4 A statewide preventable mortality study that includes rates, frequencies, and types of inappropriate care rendered in both hospital and pre-hospital care within the trauma system has been conducted.
5 The system has completed preventable mortality studies that include the determination of rates of inappropriate care, as well as an examination of the number of severely injured (ISS >15) patients arriving at the highest levels of available care within appropriate times. The assessment is repeated at regular intervals (could be an annual summary of deaths and complications).

Benchmark

104. **An assessment of the trauma system's emergency preparedness has been completed including coordination with the public health, EMS system, and the emergency management agency.**

Essential Service: *System Management.*
Indicator:

104.1 There is a resource assessment of the trauma system's ability to expand its capacity to respond to mass casualty incidents (MCIs) in an all-hazards approach.

Scoring:

0 Not known.
1 There is no resource assessment of the trauma system's ability to expand its capacity to respond to mass casualty incidents in an all-hazards approach.
2 An assessment of the ability of some components of the ATS to respond to a mass casualty incident has been included in all-hazards planning.
3 An assessment of the ability of all components of the ATS to respond to a mass casualty incident has been conducted on a statewide basis.
4 A written inventory of statewide MCI capacity has been completed and includes: medical reserve personnel, facility surge capacity, additional equipment resources and caches, communication interoperability, overall management structure such as NIMS (National Incident Management System).
5 The written inventory of trauma statewide MCI capacity has been shared with, and incorporated into, broader community-wide and statewide planning efforts for all-hazards responses.

Essential Service: *System Management*
Indicator:

104.2 The ATS has completed a gap analysis based on the resource assessment for trauma emergency preparedness.

Scoring:

0 Not known.
1 There are no resource standards on which to base a gap analysis.
2 The Statewide Trauma Advisory Committee (STAC), in conjunction, with appropriate incident management personnel, has begun to develop statewide MCI response resource standards.
3 State resource standards for ATS response during a mass casualty incident have been developed and approved.
4 Some components (e.g. pre-hospital) of the ATS, or facilities within it, have completed a gap analysis based on the adopted standards.
5 A system-wide trauma system MCI resource gap analysis has been completed for the state based on the system resource standards adopted.

Benchmark

105. **The system assesses and monitors its values to its constituents in terms of cost-benefit analysis and societal investment.**

Essential Service*: System Management.*
Indicator:
105.1 The benefits of the trauma system, such as years of productive life lost (YPLL), quality-adjusted life years (QALY), disability-adjusted life years (DALY), decreased mortality rate, decreased length of stay in the hospital and the ICU are described.
Scoring:

0 Not known.
1 There are no data available to the system to compare to quality of life indicators.
2 There are data available in the AL Trauma Registry that can serve as the basis for these calculations.
3 Additional sources of data, such as vital statistics and economic figures, are also available.
4 Cost and quality of life indicators can be analyzed and presented in descriptive and graphic form.
5 These indicators of the benefits of the AL Trauma System (ATS) are compiled and distributed on a regular basis.

Essential Service**:** *System Management*
Indicator:
105.2 Cases that document the societal benefit are reported on so that the community sees and hears the benefit of the ATS to society.
Scoring:

0 Not known.
1 No effort is made to gather, catalog, and report cases that document the societal benefit of the ATS.
2 "Dramatic saves" and other factually-based are documented at each facility or within trauma regions.
3 Cases concerning dramatic saves, functional outcome improvement, and return to a quality life are on file but not reported unless asked for by the press.
4 These examples of ATS benefits are provided to the press, and reported by the press on a local and regional level.
5 Examples of ATS benefits are provided to, and reported by the press on a statewide level. Examples include: ATS website, billboards, radio, and TV.

Essential Service: *System Management*
Indicator:
105.3 An assessment of the needs of the media public officials, and the general public concerning ATS information has been conducted.
Scoring:

0 Not known.
1 There is no routine or planned contact with the media, public officials, and the general public.
2 Plans are in place to provide information to the media, public officials, and the general public in response to a particular traumatic event.
3 AL Department of Public Health (ADPH) Health Promotion Division representative(s) have been formally asked about what type of information would be helpful in reporting on trauma cases and issues.
4 Information resources for the media have been developed based on the stated needs of the media; ADPH Health Promotion is involved in the planning and presentation of ATS informational events.
5 The media are involved in appropriate regional, and State trauma committees.

Essential Service: *System Management*
Indicator:
105.4 An assessment of the needs of the general medical community, including physicians, nurses, pre-hospital care providers, and others, concerning ATS information has been conducted.
Scoring:

0 Not known.
1 There is no routine or planned contact with the broad medical community.
2 Plans are in place to provide information to the broad medical community in response to a particular ATS event or issue.
3 The broad medical community has been formally asked about what types of information would be helpful in reporting on trauma cases and issues.
4 Information resources for the general medical community have been developed based on their stated needs. General medical community representatives are included in ATS informational events.
5 In addition to routine contact, the broad medical community is involved in various oversight activities such as Regional Trauma Advisory Councils (RTAC) and the State Trauma Advisory Council (STAC).

200. Policy Development. ***Promoting the use of scientific knowledge in decision making that includes building constituencies; identifying needs and setting priorities; legislative authority and funding to develop plans and policies to address needs; and ensuring the public's health and safety***

Benchmark

201. **Comprehensive state statutory authority and administrative rules support trauma system leaders and maintain trauma system infrastructure, planning, oversight, and future development.**

Essential Service: *Develop Policies*
Indicator:
201.1 The legislative authority (statute and regulations) plans, develops, implements, manages, and evaluates the ATS and its component parts. The lead agency is designated (ADPH) as are the trauma facilities.
Scoring:

0 Not known.
1 There is no specific legislative authority to plan, develop, implement, manage, and evaluate, or fund, the ATS and its component parts.
2 There is legislative authority for establishing the ATS, and specific timelines for adoption are drafted and reviewed by trauma and injury constituencies.
3 The lead agency (ADPH) is identified in state statute and is required to plan and develop the ATS.
4 The lead agency (ADPH) is authorized to take actions to implement the ATS and to report on the progress and effectiveness of system implementation.
5 ADPH is required to plan, develop, implement, manage, monitor, and improve the ATS while reporting regularly on the status of the ATS within the state.

Essential Service: *Develop Policies*
Indicator:
201.2 The legislative authority states that all the ATS infrastructure components are in place and work together for the effective implementation of the ATS.
Scoring:

0 Not known
1 There is no legislative authority or integrated management and system participants do not routinely work together.
2 There is no legislative authority and planning documents reflect a management structure in which participating agencies are not linked. For key issues, stakeholders sometimes come together to solve problems.
3 There is no legislative authority but people are working together to improve ATS effectiveness and management within their individual jurisdictions.

4 There is legislative authority, although it is not clearly evident that system components are integrated and working well together.
5 There is legislative authority. It clearly provides for the integration of ATS components for an effective management and infrastructure to plan and implement the system as evidenced by agency involvement and interaction.

Essential Service: *Develop Policies*
Indicator:
201.3 Administrative rules and regulations direct the development of operational policies and procedures at the state and regional levels.
Scoring:
0 Not known.
1 There is no legal authority to adopt administrative rules and regulations regarding the development of the ATS at the state and regional level.
2 There is legal authority but there are no administrative rules and regulations governing ATS development. Such components of the trauma system as designation of trauma facilities, triage guidelines, integration of pre-hospital providers and rehabilitation centers, communications protocols, and integration with public health and mass casualty incident preparedness are included in the rules and regulations.
3 There are draft state and regional rules/regulations for the different components of ATS development.
4 There are existing statewide administrative rules/regulations for planning, developing, and implementing the ATS and its components at the state and regional level.
5 The ADPH regularly reviews, through established committees and stakeholders, e.g. the Alabama Hospital Association, EMS services, local medical facilities, the rules/regulations governing ATS performance. This review includes policies and procedures for system operations at the state and regional levels and addresses integration with public health and mass casualty preparedness plans.

Essential Service: *Develop Policies*
Indicator:
201.4 The ADPH has adopted clearly defined trauma system standards, e.g. facility standards, triage and transfer guidelines, data collection standards) and has sufficient legal authority to ensure and enforce compliance.
Scoring:
0 Not known.
1 The ADPH has not adopted nor defined trauma system performance standards. Moreover, the ADPH does not have sufficient legal authority to do so.
2 Sufficient legal authority to define and adopt standards for ATS performance and operation but the ADPH has not yet completed these processes.
3 Sufficient legal authority to define and adopt these standards exists but the performance and operations standards are in the draft stage.

4 The authority exists to fully develop guidelines and standards. The ADPH has completed performance and operational standards. These are now being reviewed by stakeholders and adoption by the lead agency is pending.

5 Operational policies and procedures and ATS performance standards are in place and active monitoring of compliance is now in place with necessary legal authority to enforce these standards.

Benchmark

202. **Alabama Trauma System leaders, i.e. lead agency, trauma center personnel, and other stakeholders, use a process to establish, maintain, and constantly evaluate and improve a comprehensive trauma system in cooperation with medical, professional, governmental, and citizen organizations.**

Essential Service**:** *Community Partnership*
Indicator:
202.1 The ADPH demonstrates that it can bring organizations together to implement and maintain a comprehensive trauma system.
Scoring:

0 Not known.

1 There is no evidence of partnerships, alliances, or organizations working together to implement and maintain a comprehensive trauma system in Alabama.

2 Only limited attempts to organize these groups have been carried out so far but no on-going system committees are meeting regularly to design and implement the ATS.

3 The ADPH has multiple internal and external groups meeting regularly to develop, implement, expand, and maintain a statewide comprehensive trauma system.

4 The ADPH has ensured that multiple committees meet regularly while developing and implementing the statewide comprehensive trauma system plan. These committees include multiple stakeholders from various disciplines to participate in ATS operational issues and refinement depending on the expertise needed, e.g. data, public information, education.

5 The ADPH has brought together multiple outside stakeholder groups throughout the process of establishing the ATS in order to evaluate and make recommendations for establishing an effective and comprehensive program through the State Trauma Advisory Committee.

Essential Service*:* *Mobilize Community Partnership*
Indicator:
*202.*2 The ADPH has implemented a trauma-specific statewide multidisciplinary advisory committee, the STAC, which provides the necessary expertise and guidance to monitor and maintain the ATS. The STAC meets regularly and reports to the ADPH in all matters related to the ATS.
Scoring:

0 Not known.

1 There is no statewide trauma advisory committee providing guidance to the ADPH in monitoring and maintaining a statewide trauma system.
2 There is no AL STAC but attempts have been made to establish one have been made and are on-going.
3 There is such a committee but its meetings are infrequent and its guidance is not always sought nor is it always available. Collaborative working arrangements have not been realized.
4 There is a trauma-specific statewide multidisciplinary, multi-agency advisory committee. Committee members and stakeholders regularly attend meetings. Collaboration and consensus are beginning.
5 There is a trauma-specific multidisciplinary, multi-agency advisory committee with well-defined goals and responsibilities. It meets regularly with the ADPH providing staff support. The Committee routinely provides guidance and support to the lead agency on system issues. Multiple subcommittees and workgroups meet as often as necessary to resolve specific system issues and report back to the trauma-specific statewide multidisciplinary, multi-agency advisory committee. There is strong evidence of consensus building among system participants.

Essential Service: *Inform, Educate, Empower*
Indicator:
202.3 A clearly defined and easily understood structure is in place for the trauma system decision making process.
Scoring:
0 Not known.
1 There are no written clinical decision-making policies and procedures regarding the trauma program within the ADPH or its committees.
2 There is an unwritten decision-making process that stake-holders use when convenient, although not regularly or consistently.
3 The decision-making process is articulated within the ATS Plan, although it has not been fully implemented. Policies are not written.
4 The decision-making process is contained within the ATS plan, and there are current policies and procedures in place to guide decision making. Use of the decision-making process is infrequent.
5 There is a clearly defined process for making decisions affecting the trauma program. The process is articulated in the ATS Plan and is further identified within system policies. Stakeholders know and understand the process and use it to resolve issues and to improve the program.

Essential Service: *Inform, Educate, Empower*
Indicator:
202.4 Trauma system leaders have adopted and use goals and time-specific quantifiable and measurable objectives for the ATS.
Scoring:
0 Not known.
1 There are no goals or time-specific, quantifiable, and measurable objectives for the ATS.

2 ATS leaders have met to discuss time-specific, quantifiable goals.
3 ATS leaders are beginning the process of identifying measurable program goals and outcome-based, time-specific, quantifiable, and measurable objectives.
4 ATS leaders have adopted goals and time-specific, quantifiable, measurable objectives that guide system performance.
5 ATS leaders, in consultation with their trauma-specific, statewide multidisciplinary, multi-agency advisory committee, have established measurable program goals and outcome-based, time-specific, quantifiable and measurable program goals and outcome-based, time-specific, quantifiable, and measurable objectives that guide system effectiveness and system performance.

Benchmark

203. **The Alabama Department of Public Health, i.e. lead agency, has a comprehensive written trauma system plan based on national guidelines. The plan integrates the Trauma System with the EMS, Public Health, Emergency Preparedness, and incident management. The written trauma system plan is developed in collaboration with community partners and stakeholders.**

Essential Service: *Inform, Educate, Empower*
Indicator:
203.1 The ADPH, in concert with a trauma-specific multidisciplinary, multi-agency advisory committee, has adopted a trauma system plan.
Scoring:
0 Not known.
1 There is no trauma system plan nor is one in progress.
2 There is no trauma system plan although some groups have begun meeting to discuss the development of a trauma system plan.
3 A trauma system plan was planned and adopted by the ADPH. The plan, however, has not been endorsed by the trauma stakeholders.
4 A trauma system plan has been adopted, developed with multi-agency groups, and endorsed by those agencies.
5 A comprehensive trauma system plan has been developed, adopted in conjunction with trauma stakeholders, and includes the integration of other systems (e.g. EMS, public health, and emergency preparedness).

Essential Service: *Inform, Educate, Empower*
Indicator:
203.2 The trauma system plan clearly describes the system design and is used to guide system implementation and management, e.g. the plan includes references to regulatory standards and documents, as well as methods of data collection and analysis.
Scoring:
0 Not known.
1 There is no trauma system plan.
2 The trauma system does not address or incorporate the trauma system components (pre-hospital, communication, transportation, acute care, rehab, and possibly

others) nor is it inclusive of all-hazards preparedness, EMS, or public health integration.

3 The trauma system plans provide general information about the various components; however, it is difficult to determine who is responsible and accountable for system implementation and performance.

4 The trauma system plan addresses every component of a well-organized and functioning trauma system including all-hazards preparedness and public health integration. Specific information on each component is provided and trauma system design is inclusive of providing for specific goals and objectives for system performance.

5 The trauma system plan is used to guide system implementation and management. Stakeholders and policy leaders are familiar with the plan and its components and use the plan to monitor system progress and to measure results.

Essential Service: *Community Partnerships*

Indicator:

203.3 The trauma system plan has established clearly defined methods of integrating the plan with the EMS, emergency, and public health preparedness plans (all hazards).

Scoring:

0 Not known.

1 There is no mention of integration between the trauma system plan and the EMS, emergency, and public health preparedness plans.

2 There is some cross-reference between plans, but defined methods of working collaboratively are not developed.

3 The written plans are integrated and there are defined methods for working collaboratively but implementation has not taken place,

4 The ATS Plan has been integrated with other relevant plans. There is evidence of system integration activity.

5 The ATS planning and operations have been fully integrated with the EMS, emergency and public health preparedness plans. Training and exercises are conducted regularly, and the integration of the system and its plans is evident.

Benchmark

204. **Sufficient resources, including those both financial- and infrastructure-related, support system planning, implementation, and maintenance.**

Essential Service: *Develop Policies*
Indicator:

204.1 The ATS Plan clearly identifies the human resources and equipment necessary to develop, implement, and manage the trauma program, both clinically and administratively.

Scoring:

0 Not known.
1 There is no method of assessing available resources or of identifying resource deficiencies in either the clinical or administrative areas of the ATS.
2 The ATS Plan addresses resource needs and identifies gaps in resources within the System, but no mechanism for correcting resource deficiencies has been identified.
3 Resource needs are identified, and a draft plan, inclusive of goals and timelines, has prepared to address the resource needs. The plan has not yet been implemented.
4 Resource needs are identified, and a draft action plans are being implemented to correct deficiencies in both clinical areas and administrative support functions.
5 A resource assessment survey has been completed and is incorporated into the Trauma System Plan. Goals and measurable objectives to reduce or eliminate resource deficiencies have been implemented. Evaluation of progress on meeting resource needs is evident, and, when necessary, the Plan has been modified to correct deficiencies.

Essential Service: *System Management*
Indicator:

204.2 Financial resources exist that support the planning, implementation, and ongoing management of the administrative and clinical care components of the ATS.

Scoring:

0 Not known.
1 There is no funding to support trauma system planning, implementation, or ongoing management and operations for either ATS administration or clinical care.
2 Some funding for trauma care within the third-party reimbursement structure has been identified, but ongoing support for administrative and clinical care outside the third-party reimbursement structure is not available.
3 There is current funding for the development of the ATS within the ADPH organization consistent with the Trauma System plan, but costs to aid in clinical care support services have not yet been identified (transportation, communication, uncompensated care, standby fees, etc.). No ongoing commitment of funding has been secured.
4 There is funding available for both administrative and clinical components of the ATS Plan. A mechanism to assess needs among various providers has begun.

Implementation costs and ongoing support costs of the ADPH have been addressed within the Plan.

5 A stable (consistent) source of reliable funding for the develop, operations, and management of the trauma program (clinical care and ADPH administration) has been identified and is being used to support trauma planning, implementation, maintenance, and ongoing program enhancements.

Essential Service: *System Management*
Indicator:

204.3 Designated funding for ATS infrastructure support is legislatively appropriated with the goal of stable, long-term funding.

Scoring:

0 Not known
1 There is no designated funding to support the trauma system infrastructure.
2 One-time funding has been designated for ATS infrastructure support and appropriations have been made to the ADPH.
3 Limited funds for trauma system development have been identified but the funds have not been appropriated for ATS infrastructure.
4 Consistent, though limited, infrastructure funding has been designated and appropriated to the ADPH.
5 The legislature has identified, designated, and appropriated sufficient infrastructure funding for the ADPH consistent with the ATS Plan and priorities for funding administration and operations.

Essential Service: *System Management*
Indicator:

204.4 Operational budgets, i.e. system administration and operations, facilities administration and operations, and EMS administration and operations, are aligned with the trauma system plan and priorities, for example, Full-time Equivalents (FTEs) to staff the TCC and costs to improve the communications system.

Scoring:

0 Not known.
1 There are no operational budgets.
2 There are limited operational budgets, not sufficient to cover related program costs for the ADPH, the EMS System, or a particular trauma center.
3 There are operational budgets that may be sufficient to cover most program costs, but they are without regard to the ATS Plan.
4 There are operational budgets that have some ties to the ATS Plan and that include consideration for the extraordinary costs to ATS providers.
5 An operational budget exists for each component in the Plan and matches ATS needs and priorities with program and operational expenditures.

Essential Service: *Mobilize Community Partnerships*
Indicator:
204.5 The ATS Plan includes identification of additional resources, both manpower and equipment, necessary to respond to mass casualty situations.
Scoring:

0 Not known.
1 The ATS Plan does not include the identification of additional resources necessary to respond to mass casualty incidents.
2 The ATS Plan addresses mass casualty incidents but has not identified additional resources.
3 The ATS Plan identifies resources but it is unclear how the needs are going to be met.
4 The ATS Plan identifies both equipment and manpower resources currently available and additional resources needed. It also identifies a process for securing and ensuring that equipment and human resources are available.
5 There is a well-drafted and rehearsed ATS Plan along with sufficient caches of equipment and backup personnel that ensures the rapid deployment of additional resources during mass casualty incidents.

Benchmark

***205.* Collected data are used to evaluate system performance and to develop public policy.**

Essential Service: *System Management*
Indicator:
205.1 Collected data are used for strategic and budgetary planning.
Scoring:

0 Not known.
1 There is no central data repository that can be accessed for strategic or budgetary planning.
2 There are varying databases that can be accessed but no single reporting structure, written, on-line, or electronic, to produce reports and to analyze findings.
3 Data are collected and stored in a central repository; however, reports are not routinely generated that could be used for strategic or budgetary planning.
4 There is a central warehouse for trauma and system financial data that are used for annual reporting of system performance.
5 There is a central repository and data warehouse for all ATS data. System participants including trauma centers and the ADPH can access the data. Regular reports are generated to identify financial information, budget utilization, strategic planning, and performance efficiency.

Essential Service: *Develop Policies*
Indicator:

205.2 The trauma information management system (MIS) is used to assess ATS performance, to measure system compliance with applicable standards, and to allocate ATS resources to areas of need or to acquire new resources.

Scoring:

0 Not known.
1 There is no trauma management information system.
2 There is a limited trauma management information system consisting of a trauma patient registry, but no data extraction is used to identify resource needs, to establish performance standards, or to routinely assess and evaluate ATS effectiveness.
3 There is a trauma management information system that routinely reports (written, on-line, or electronically) on system-wide management performance and compliance. Linkage between management reports, resource utilization, and performance measures has begun.
4 Routine trauma MIS reports are issued at the state, regional, and service provider level. Reports focus on management strengths, compliance with standards, and resource utilization.
5 Trauma MIS reports are used extensively to improve and report on system performance. The ADPH issues regular routine reports to providers. The reports are reviewed to determine system deficiencies and to allocate resources to areas of greatest need.

Essential Service: *Inform, Educate, Empower*
Indicator:

205.3 Education for ATS providers is developed based on a review and evaluation of ATS data.

Scoring:

0 Not known.
1 There is no correlation between training programs for providers and the trauma MIS.
2 There is limited use of trauma MIS reports to target educational opportunities.
3 There is evidence that some providers are using trauma MIS reports to identify educational needs and to incorporate them into training programs.
4 Many educational forums have been conducted based on an analysis of the performance data in the trauma MIS. Clear ties link education with identified areas of need from trauma MIS reports.
5 Routine analysis of trauma information and educational opportunities is being conducted. Integrated program objectives tying system performance and education are implemented and routinely evaluated. Regular updates to trauma information and education are available. Trauma MIS data are used to measure outcomes and effectiveness.

Benchmark

***206.* Alabama Trauma System leadership, including its multidisciplinary advisory committees, regularly reviews system performance reports.**

Essential Service: *Inform, Educate, Empower*
Indicator:

206.1 Trauma data reports are generated by the ATS not less than once per year and are disseminated to trauma leadership and stakeholders to evaluate and improve the effectiveness of the system.

Scoring:

0 Not known.
1 No trauma data reports are generated to evaluate and improve system performance effectiveness.
2 Some general ATS information is available for the stakeholders, but it is not consistent or regular.
3 Trauma data reports are done on an annual basis, but are not used for decision making and evaluating system effectiveness.
4 Routine reports are generated using trauma system data and other databases so that the system can be analyzed, standards evaluated, and performance measured.
5 Regularly scheduled reports are generated from trauma system data and are used by the stakeholder groups to evaluate and improve system performance effectiveness.

Essential Service: *Inform, Educate, Empower*
Indicator:

206.2 The STAC regularly reviews annotated trauma system data reports and system compliance information to monitor trauma system performance and to determine the need for system modifications.

Scoring:

0 Not known.
1 There is no trauma-specific, statewide, multidisciplinary advisory committee, and there are no regular reports of system performance.
2 There is a trauma-specific, statewide, multidisciplinary advisory committee (STAC) but it does not routinely review ATS data reports.
3 The STAC meets regularly and reviews process-type reports. No critical assessment of system performance has been completed.
4 The STAC meets regularly and routinely assesses reports from trauma data to determine system compliance and operational issues needing attention.
5 The STAC and related stakeholder groups meet regularly and review trauma data reports to assess system performance over time, looking for ways to improve system effectiveness and patient outcomes.

Benchmark

207. **The Alabama Department of Health informs and educates state, regional, and local constituencies and policy makers to foster collaboration and cooperation for system enhancement and injury control.**

Essential Service: *Inform, Educate, Empower*
Indicator:

207.1 The ADPH ensures communications, collaboration, and cooperation between state and regional systems.

Scoring:

0 Not known.
1 There is no evidence of active dialogue, either written or verbal, to suggest a strong working relationship between the ADPH and other governmental agencies (state, regional, or local).
2 There is little evidence that the ADPH and other governmental agencies involved in implementing the ATS actively engage in system planning and operational dialogue.
3 The ADPH issues regular updates (written, on-line, and electronic) on ATS activities. The update is largely one-way communication to other governmental agencies. Communication usually revolves around an event (reactionary). Pro-active, open communication is not the norm.
4 The ADPH, through the STAC, engages in open, frequent communication with its constituencies. Newsletters, activity reports, website information and proactive planning are occurring through the ADPH. Communication and collaboration among governmental organizations is occurring, although they are largely event based.
5 State and regional systems engage in mutual and cooperative plan development and implementation. The ADPH seeks input and dialogue with stakeholders. The communication is open, frequent, and proactive.

Essential Service: *Inform, Educate, Empower*
Indicator:

207.2 The trauma system leaders (ADPH, STAC, RTACs, and others) inform and educate constituencies and policy makers through community development activities, targeted media messaging, and active collaborations aimed at injury prevention and trauma system development.

Scoring:

0 Not known.
1 No targeted messaging, "town hall meetings," nor media campaigns to educate and inform community and state leaders about trauma system development activities have begun.
2 Limited interfaces with policy makers and the media, aimed at informing them about trauma system development have occurred.
3 Limited interfaces with policy makers and the media, aimed at both trauma system development and injury prevention campaigns have occurred.

4 Trauma system leaders are engaging policy makers in discussions about the institution of injury prevention campaigns and the effect of trauma system development on reducing morbidity and mortality from traumatic injuries.

5 Well planned media campaigns about an integrated trauma system development and injury prevention have been instituted. The goal is to make policy makers and the public aware of the benefits of a trauma system and the importance of injury prevention programs.

Benchmark

***208.*The trauma, public health, and emergency preparedness systems are closely linked.**

Essential service: *Mobilize Community Partnerships*

Indicator:

208.1 The trauma system and the public health system have established linkages between their programs using population-based public health surveillance and evaluation for acute and chronic traumatic injury and injury prevention.

Scoring:

0 Not known.

1 There is no evidence that demonstrates a working relationship, including the sharing of data, between other programs within the ADPH and the ATS. Population-based public health surveillance and evaluation for acute and/or chronic traumatic injury and injury prevention has not been integrated with the trauma system.

2 There is little population-based public health surveillance shared with the trauma system and program linkages are rare. Routine public health status reports are available for review by ADPH and constituents.

3 The ATS and divisions within the ADPH have begun sharing public health surveillance data for acute and chronic traumatic injury. Program linkages are in the discussion stage.

4 The ATS has begun to link with other divisions of the public health system. The process of sharing public health surveillance is evolving. Routine dialogue is occurring between programs.

5 Routine reporting, program participation, and system plans are fully vested. Operations are routine and measurable progress can be demonstrated through such operations as rapid response to and notification of incidents, integrated data systems, and regular epidemiology report generation.

Essential Service: *Mobilize Community Partnerships*

Indicator:

208.2 The ATS and the disaster management system have formally established linkages for system integration and operational management.

Scoring:

0 Not known.

1 There are no formally established linkages for system integration or operational management between the incident management system and the trauma system.

2 There are limited linkages or interfaces between the incident management system and the trauma system.
3 Plans are in place for incident management and trauma system linkage.
4 There is evidence of program linkage between the incident management and trauma systems. Operational management guidelines exist and are routinely evaluated and tested.
5 Strong linkage exists as evidenced by regular meetings of system participants and their familiarity with the operational plans of both areas. Data from the trauma system and from the incident management system are shared.

300. Assurance. ***Assurance to constituents that services necessary to achieve agreed-on goals are provided by encouraging actions of others (public or private), requiring action through regulation, or providing services directly.***

Benchmark

301. **The trauma management information system (MIS) is used to facilitate ongoing assessment ongoing assessment and assurance of system performance and outcomes and provides a basis for continuously improving the trauma system including a cost-benefit analysis.**

Essential Service: *Evaluation*
Indicator:
301.1 The ADPH ensures that each member hospital of the ATS 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 ADPH.
Scoring:

0 Not known.
1 There is no system-wide management information data collection system that the trauma centers and other community hospitals regularly contribute to or use the evaluate trauma care.
2 There is a trauma registry system in place in the trauma centers but it is not used by all facilities within the ATS nor the ADPH to assess system performance.
3 The trauma MIS contains information from all facilities within the state.
4 The trauma MIS is used by the trauma centers to assess provider and system performance.
5 Hospital trauma registry data are routinely submitted to the Alabama Trauma Registry, are aggregated, and are used to evaluate overall system performance.

Essential Service: *Evaluation*
Indicator:
301.2 Prehospital care providers collect patient care and administrative data for each episode of care and provide these data not only to the hospitals but have a mechanism to evaluate the data within their own agency including monitoring trends and identifying outliers.
Scoring:

0 Not known.
1 There is no jurisdiction-wide prehospital data collection.
2 Prehospital care providers have a patient care record (PCR) for each episode of care but it is not yet automated or integrated with the trauma MIS.
3 The prehospital PCR electronically captures patient care provided by field personnel and can be transferred or entered into the trauma registry system within individual trauma centers.

4 The prehospital patient data system is integrated into the trauma MIS and is used by prehospital and hospital personnel to review and evaluate prehospital and ATS performance.
5 Individual prehospital provider data are electronically submitted to the ATR, are aggregated with other prehospital agency data, and are used to evaluate overall ATS performance.

Essential Service: *Evaluation*
Indicator:
301.3 Hospital trauma registry, emergency department (ED), prehospital, rehabilitation, and possibly other databases are linked or combined to create a trauma system registry.
Scoring:
0 Not known.
1 Some hospital trauma registry and prehospital patient records are manually entered into a database when needed to answer system questions. There is no rehabilitation registry.
2 There are databases for trauma hospitals, emergency departments, prehospital, and rehabilitation as well as statewide injury databases. None of the databases are routinely linked.
3 There are electronic hospital trauma registries and prehospital patient record databases which are linked but the ATS does not use these data for routine review of system performance. Some rehabilitation data are collected independently from the ATR.
4 There is an integrated MIS that includes, at a minimum, hospital and prehospital databases. The information is linked and providers use the databases for system evaluation. Rehabilitation centers routinely provide electronic data to the ATR.
5 There is an integrated MIS that includes hospital trauma registry, ED, prehospital, Trauma Communications Center, and rehabilitation databases that are regularly used by the ADPH and system provider agencies to monitor ATS performance.

Benchmark

302. **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.**

Essential Service: *Link to Provide Care*
Indicator:

302.1 There is well-defined trauma system medical oversight integrating the specialty needs of the trauma system with the medical oversight of the overall EMS prehospital performance as a part of the ATS. Also, medical oversight of investigations of specific incidents where the system fails or falls well short of established system outcome parameters.

Scoring:

0 Not known.
1 There is no medical oversight for EMS providers within the ATS.
2 EMS medical oversight for all levels of prehospital providers caring for the trauma patient is provided, but such oversight is provided outside the purview of the ATS.
3 The EMS and trauma medical directors have integrated prehospital medical oversight for prehospital personnel caring for trauma patients.
4 Medical oversight is routinely given to EMS providers caring for trauma patients. The ATS has integrated medical oversight for prehospital providers and routinely evaluates the effectiveness of both on-line and off-line medical oversight.
5 The EMS and trauma system fully integrate the most up-to-date medical oversight and regularly evaluate program effectiveness. ATS providers are included in the development of medical oversight policies.

Essential Service: *Link to Provide Care*
Indicator:

302.2 There is a clearly defined, cooperative, and ongoing relationship between the trauma specialty care physician leadership, e.g. the trauma medical director within each facility, and the EMS system medical director.

Scoring:

(Add "Scoring" section after finishing typing all the "Benchmarks" only then returning to this location in document)

Essential Service: *Link to Provide Care*
Indicator:
302.3 There is clear-cut legal authority and responsibility for the EMS medical director including the authority to adopt protocols, to implement a quality improvement system, to restrict the practice of prehospital care providers, and to generally assure medical appropriateness of the EMS system.

(Begin suspension of format here at COB on 9/29/08. Type only BENCHMARKS until completed. Upon completion, go back and complete the Essential Service, Indicator, and specific "Scoring" plan.)

Benchmark

303. **Acute care facilities are integrated into a resource-efficient, inclusive network that meets required standards and that provides optimal care for all traumatically injured patients.**

Benchmark

304. **The jurisdictional lead agency, in cooperation with other agencies and organizations, uses analytical tools to monitor the performance of population-based prevention and trauma care services.**

Benchmark

305. **The lead agency assures its trauma system plan is integrated with, and complimentary to, the comprehensive mass casualty plan for natural disasters and manmade disasters, including an all-hazards approach to disaster planning and operations.**

Essential Service: *Link to Provide Care*
Indicator:
305.1 The EMS Trauma System and the disaster medical system have operational trauma and disaster response plans and have established an on-going cooperative working relationship to assure trauma system readiness to "all hazard" multiple patient events.
Scoring:
0 Not known.
1 There is no sharing of

Benchmark.

306. **The lead agency (ADPH) ensures that the ATS demonstrates prevention and medical outreach activities within its defined service area.**

Essential Service: *Link to Provide Care*
Indicator:

306.1 The ATS has developed mechanisms to engage the medical community and other system participants in their research findings and quality improvement efforts.

Scoring:
0 Not known.
1

Benchmark:

307. **To maintain its State, regional, or local designation, each hospital will continually work to improve the trauma care as measured by patient outcomes.**

Essential Service: *Evaluation*
Indicator:

307.1 The ATS engages in regular evaluation of all licensed acute care facilities that provide trauma care to trauma patients and designated trauma hospitals. Such evaluation involves independent external reviews.

Benchmark:

308. **The lead agency, ADPH, ensures that adequate rehabilitation facilities have been integrated into the trauma system, ATS, and that resources are made available to all populations requiring them.**

Essential Services: *Link to Provide Care*
Indicator:

308.1 The lead agency has incorporated, within the trauma system plan and the trauma center standards, requirements for rehabilitation services including interfacility transfer of trauma patients to rehabilitation centers.

Scoring:
0 Not Known.

Benchmark:

309. **The financial aspects of the ATS are integrated into the overall quality improvement (QI) plan to assure ongoing fine-tuning and cost effectiveness.**

Essential Service: *Evaluation*
Indicator:
309.1 Cost data are collected and involved and provided to the ATR for each major component including: prevention, prehospital, acute care, disaster planning, and rehabilitation.
Scoring:
0 Not known.

Essential Service: *Evaluation*
Indicator:
309.2 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.
Scoring:
0 Not known.

Benchmark:

310. **The lead trauma authority assures a competent workforce.**

Essential Service: *Ensure Competent Workforce*
Indicator:
310.1 In cooperation with the prehospital certification/licensure authority, sets guidelines for prehospital personnel for initial and ongoing trauma training including trauma-specific courses and those courses are readily available throughout the State.
Scoring:
0 Not known.
1 There are no trauma training guidelines for prehospital personnel as part of initial or ongoing certification or licensure.

Essential Service: *Ensure Competent Workforce*
Indicator:
310.2 In cooperation with the prehospital certification/licensure authority, assure that prehospital care providers who routinely respond to trauma calls have a current trauma training certificate, e.g. PHTLS, BTLS, and others, or that after initial certification, training needs are driven by quality assurance or performance improvement (QA/PI) mechanisms, or both.

Scoring:

0 Not known.

1 There is no mechanism to ensure that prehospital personnel, e.g. Emergency Medical Technicians (EMTs) routinely providing care to trauma patients are certified in PHTLS and

2 BTLS or have completed other trauma training.

(End here, 10/03/08)

Alabama Trauma System QI Plan Process

Quality Improvement Process

The mission of the state quality improvement process is to continuously monitor the Statewide Trauma System utilizing data to determine the trauma system impact on quality of care. The evaluation process must include benchmarks that will provide guidelines for acceptable standards of care and system performance. The process will also include the coordination of educational initiatives, system changes and enforcement as necessary.

Alabama Trauma System QI Plan consists of the following components:

1) Hospital
   A. Quarterly internal audits
   B. Trauma Registry reports
   C. Internal management committee meeting
   D. Monthly reporting to the regional office
   E. Participation in quarterly regional QI committee meetings

2) Pre Hospital
   A. Air
      1. Internal audits
      2. Monthly QI report as determined by the Regional Aero-Medical Plan
      3. Participation in quarterly regional QI committee meetings
   B. Ground
      1. Internal Audits
      2. Participating in quarterly regional QI committee meetings

3) System
   The Alabama Department of Public Health Office of EMS and Trauma will be responsible for direct oversight and enforcement of the QI plan:
   1. Assume responsibility and accountability for the implementation and ongoing activities of the QI program
   2. Establish, maintain and give guidance to STAC, RTAC, EMS Regional Staff and QI Committee.
   3. Integrate mission of the QI program into activities for all levels of participation within the statewide trauma system.
   4. Utilize quality assessment data process to identify the needs to change Trauma System processes to ensure the success of the Alabama Trauma System.
   5. Communicate and cooperate with appointed RTAC QI committee members to operate their QI plan.
   6. Ensure all QI plan activities are reported to STAC and the State Committee of Public Health.
   7. Establish and maintain a systematic QI assessment process
   8. Establish a culture of quality improvement through leadership, education, communication and teamwork.

9. Complaints receive at the State level will be forward to the Regional staff for follow-up according to 1, 2, 3 steps Trauma System noncompliance process listed under **Regions Role: number 8.**

Regional Trauma Advisory Council (Staffed by EMS Regional Agency)

1. Utilize regional level quality assessment data process to identify the needs to maintain/change trauma system processes by reporting findings to OEMS & T.
2. Communicate and cooperate with the direct services providers, state trauma staff and all appropriate trauma system personnel to ensure Trauma System information is shared.
3. Promote, coordinate and conduct ongoing pre-hospital and hospital trauma system education
4. Follow up with direct service providers to ensure trauma processes are performed.
5. Participate in all levels of QI process
6. Meet quarterly with the State QI committee to discuss ways to improve the trauma system processes.
7. Receive all Trauma system complaints and data, then to the State/Regional QI committee
8. Report **noncompliance** issues to the Regional Trauma Advisory Council as listed below for pre-hospital component:
    A. **First Issue**- Verbal warning and remenditative education, documentation by region staff
    B. **Second Issue**-Written report by regional staff with forward to RTAC
    (Letters should come from the State then referred to the Regions)
    C. **Third Issue**-Verbal/written report forward to the State OEMS & T Compliance Officer for investigation with possible licensure action taken up and including license suspension and/or revocation.
    D. State compliance officer will report all out come from findings to the RTAC

EMS & Trauma Regions Noncompliance:

All regional EMS Agency noncompliance related to trauma system issues will be handled by the Director of the Office of EMS & Trauma.

Hospital Noncompliance:

All hospital noncompliance trauma system issues will be processed according to the contractual agreement with the hospital ***(See Trauma System Contract)***

ATCC Noncompliance

All ATCC noncompliance issues will be process by the Director of the Office of EMS & Trauma and the ATCC Director

DOC 4

ATCC/Trauma System Issues QI

Date: **PCR#:**

Occurrence Date: **Time:**

Organizations Involved:

ISSUES(S):

☐ Patient not entered into system.

☐ Patient entered into system late.

☐ Physician did not come to telephone/radio for patient report and orders.

☐ ~~Patient should have been transported to a Level One facility~~.
Patient not transported to appropriate trauma center

☐ Patient transport designation issues Statement added to document

☐ Patient transport issueStatement added to documentStatement added to document
☐ Air ☐ Ground

☐ No PCR left at Hospital.

☐ Other:_____

Explain the occurrence fully below; do not just check box.

DCS

Alabama Department of Public Health
Trauma System Issue Tracking Log

Service Provider: _____Employee:_____
Date of Occurrence: _____ Service Notification Date: _____
EMT Involved Name_____ License#_____
Name_____ License#_____

Issue:_____
_____
_____
_____
_____
_____

Service Findings: _____
_____
_____
_____
_____
_____

Resolution:_____
_____
_____
_____
_____

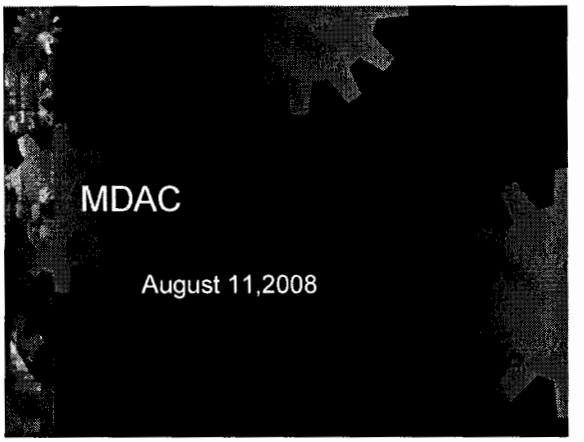
Close Date: _____

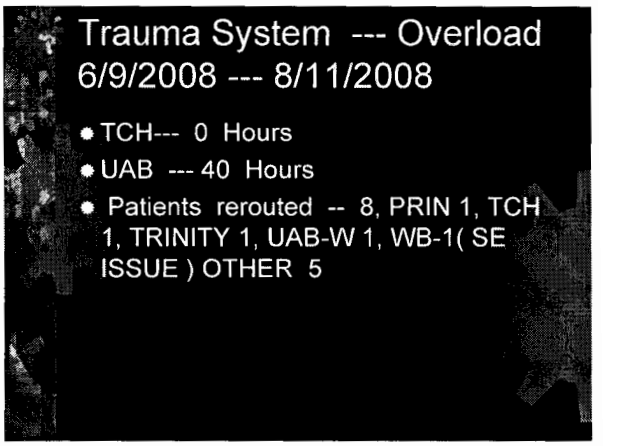
_____ _____
Regional Staff Signature Date

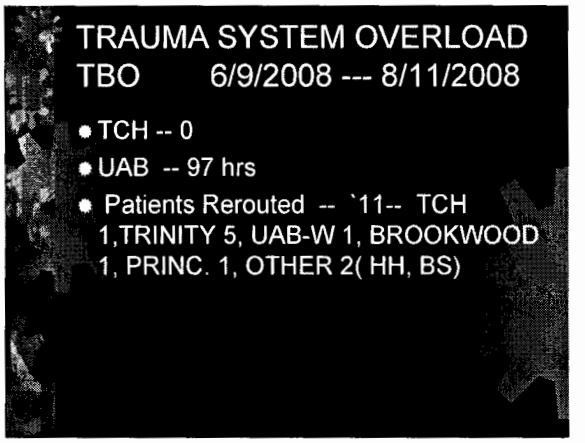
ATCC ID#_____

Created by em1cfoun 08/19/2008
Edited 10/07/2008

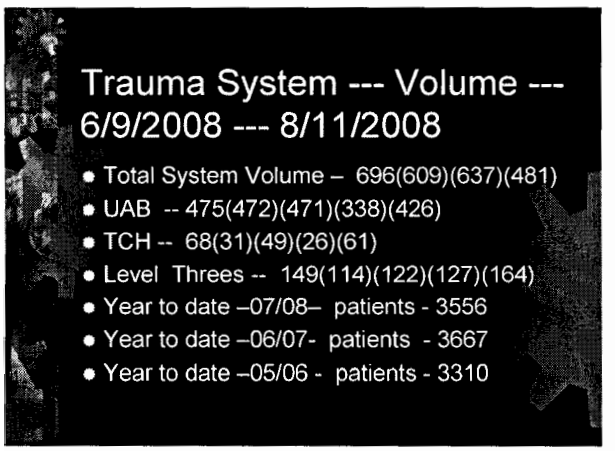
DOC 6

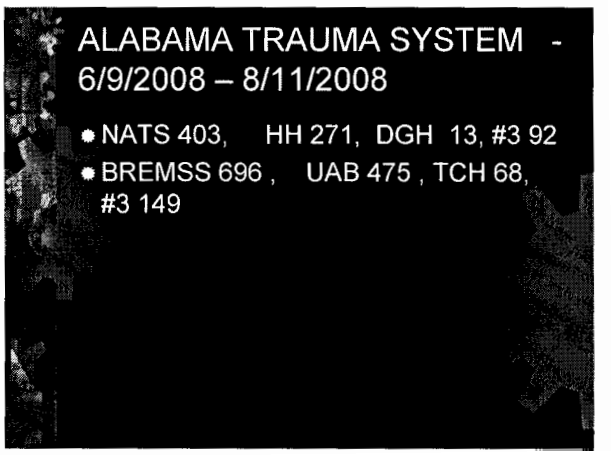

MDAC
August 11,2008


Trauma System --- Overload
6/9/2008 --- 8/11/2008
TCH--- 0 Hours
UAB --- 40 Hours
Patients rerouted -- 8, PRIN 1, TCH 1, TRINITY 1, UAB-W 1, WB-1(SE ISSUE) OTHER 5


TRAUMA SYSTEM OVERLOAD
TBO 6/9/2008 --- 8/11/2008
TCH -- 0
UAB -- 97 hrs
Patients Rerouted -- `11-- TCH 1,TRINITY 5, UAB-W 1, BROOKWOOD 1, PRINC. 1, OTHER 2(HH, BS)


TRAUMA SYSTEM ---- RED
TCH – 0
UAB -- HRS.
Patients Rerouted – 0


Trauma System --- Volume ---
6/9/2008 --- 8/11/2008
Total System Volume – 696(609)(637)(481)
UAB -- 475(472)(471)(338)(426)
TCH -- 68(31)(49)(26)(61)
Level Threes -- 149(114)(122)(127)(164)
Year to date –07/08– patients - 3556
Year to date –06/07- patients - 3667
Year to date –05/06 - patients - 3310


ALABAMA TRAUMA SYSTEM -
6/9/2008 – 8/11/2008
NATS 403, HH 271, DGH 13, #3 92
BREMSS 696 , UAB 475 , TCH 68, #3 149

Stroke System Volume -- 6/9/2008 – 8/11/2008

- Stroke Patients -- 265
- Stroke Patients year to date 07/08 - 1582
- Stroke Patients year to date 06/07 - 1316
- Stroke Patients year to date 05/06 - 1024

STROKE DESTINATIONS

- **UAB --64- 69hrs**
- **WBMC --0**
- **MEDWEST –12- 82.5 hrs**
- **St . Vincent's 65- 5.9 hrs**
- **Shelby Baptist -10-- 223 hrs**
- **UAB Highlands –0**
- **St. Vincent's East –14**
- **PCMMC --8- 9.2**
- **Brookwood – 20- 224hrs**
- **Princeton –32- 351.5 hrs**
- **Trinity -- 33- 111.1 hrs**

TCC GENERATED QI Issues 6/9/2008 – 8/11/2008

- FIFTY THREE
- Closed -- THIRTY -FIVE – ( ) denotes open issue
- System Entry 8(14)
- Patient destination
- TCC & System
- Trauma Times
- Re-Route & Divert (1)
- Medical Direction 5
- Hospital Hold
- Other 21(4)

ISSUES

- CPAP – VHF,MTN.BROOK FIRE,NS, RM,BLOUNT EMS, North Shelby Fire
- PROTOCOL EDUCATION

DC 9

POTENTIAL QI REPORTS

Following is a listing of the Tables and Charts to be considered for routine reporting from the EMS and Trauma Region One to the QI Workgroup:

1. North Alabama Trauma Patients Entered With the ATCC (p. 19)
   - Focus: How Many North Alabama Patients Are Entered Into ATCC?
2. Trauma Patients Reported As Undertriaged (p.20)
   - Focus: How Many Patients Met the Criteria, But Were Not Entered?
3. Undertriaged Trauma Patients ACS Levels (p. 21)
   - Focus: What Is the Injury Classification For Those Patients Undertriaged?
4. Patients Routed to Level 1 & 2 Trauma Centers vs. Feedback Received (p. 22)
   - Focus: How Many Patient Care Feedback Reports Are Being Completed?
5. Trauma Patient ACS Injury Criteria (p. 25)
   - Focus: What Are the ACS Levels Of Entered Trauma System Patients?
6. System Patients To Level 1 Via Air Transport; Discharged Home (p. 26)
   - Focus: How Many Patients Transported By Air Are Being Discharged?
7. Air Transport vs. Ground Transport (p. 29)
   - Focus: How Are Patients Getting To the Trauma Center?
8. Patient Gender (p. 30)
   - Focus: What Is the Gender Of Trauma Patients Being Entered?
9. Patient Age Groups (p. 31)
   - Focus: What Is the Age Make-Up Of Trauma System Patients?
10. Event Type Dispersion (p. 32)
    - Focus: What Is Causing the Injuries Of Patients Entered Into the System?

Note: The above-referenced tables and charts are from the *Regional Trauma Operations Committee, Progress Report To The Trauma Operations Committee Concerning The Status Of The Alabama Trauma System For The North Alabama Counties As Prepared By Alabama EMS Region One, August 29, 2008.*

The following are from the LifeTrac System Reports:

11. Patients Per Entry Criteria Report (p. 5)
12. Patients by Provider (p. 9)