

Central Mississippi Trauma Region

TRAUMA PLAN

2013

Central Mississippi Trauma Region, Inc.
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I. SUMMARY

The Trauma Plan of the Central Mississippi Trauma Region, Inc. (CMTR) has been prepared in accordance with all of the requirements set forth in published rules of the Mississippi State Department of Health entitled "The Mississippi Trauma Care System Regulations." Additionally, the "Model Trauma System Planning and Evaluation" document published by the U.S. Department of Health and Human Services and the 2006 edition of "Resources for Optimal Care of the Injured Patient," published by the American College of Surgeons, were used to parallel, to the greatest extent possible, nationally recognized trauma system standards.

The purpose of this plan is to guide the progressive development of an inclusive trauma care system for the state designated 15-county CMTR.

The CMTR is a not-for-profit 501(c)(3) organization which is governed by a 26 member Board of Directors (Board). Members of the CTMR Board represent the hospitals, CMTR Committees, and EMS providers in the member counties: Attala, Claiborne, Copiah, Hinds, Holmes, Jefferson, Leake, Madison, Rankin, Scott, Simpson, Smith, Warren, Winston. and Yazoo.

Management of the CMTR has been established through employment of an Executive Director. The Executive Director of the CMTR is responsible, under the direction of the Board, for the region's inclusive trauma system – planning, implementation, and management.

This plan blueprints the development of an inclusive trauma care system within an existing emergency medical system in Central Mississippi. The plan's foundation currently exists within the area's designated trauma center hospitals, medical staffs, pre-hospital providers, ancillary support groups, consumers, and political subdivisions.

Because of the availability of advanced life support pre-hospital providers and a rapid air transport system, most of the more distant major trauma patients are transported directly to the CMTR's Level I trauma center by order of the online regional medical directors and/or protocols as authorized in the regional medical control plan.

Other special care needs of trauma patients are available at the University of Mississippi Medical Center Pediatric Hospital, located in Jackson, Mississippi, Methodist Rehabilitation Center, located in Jackson, Mississippi, and the Joseph M. Still Burn Centers, Inc, in Georgia, which also had a facility located at Crossgates River Oaks Hospital in Brandon, Mississippi and recently relocated to Central Mississippi Medical Center in Jackson, Mississippi (is currently awaiting designation as a burn center).

II. PLAN GOALS

A. CMTR Goals

1. To develop and implement an inclusive regional trauma care system which is founded upon an existing pre-hospital system (EMS) and upon in-region hospital facilities with support and commitment from the respective medical staffs.
2. To maintain an administrative structure to plan and implement an inclusive trauma care system with the goal of reducing preventable morbidity and mortality resulting from trauma.
3. To maintain a regional trauma registry from which data will serve as the directive for all trauma system processes.
4. To develop and implement public information, education, and prevention programs with the goals of accessibility to care, system support, and lifestyle changes (incidence reduction).

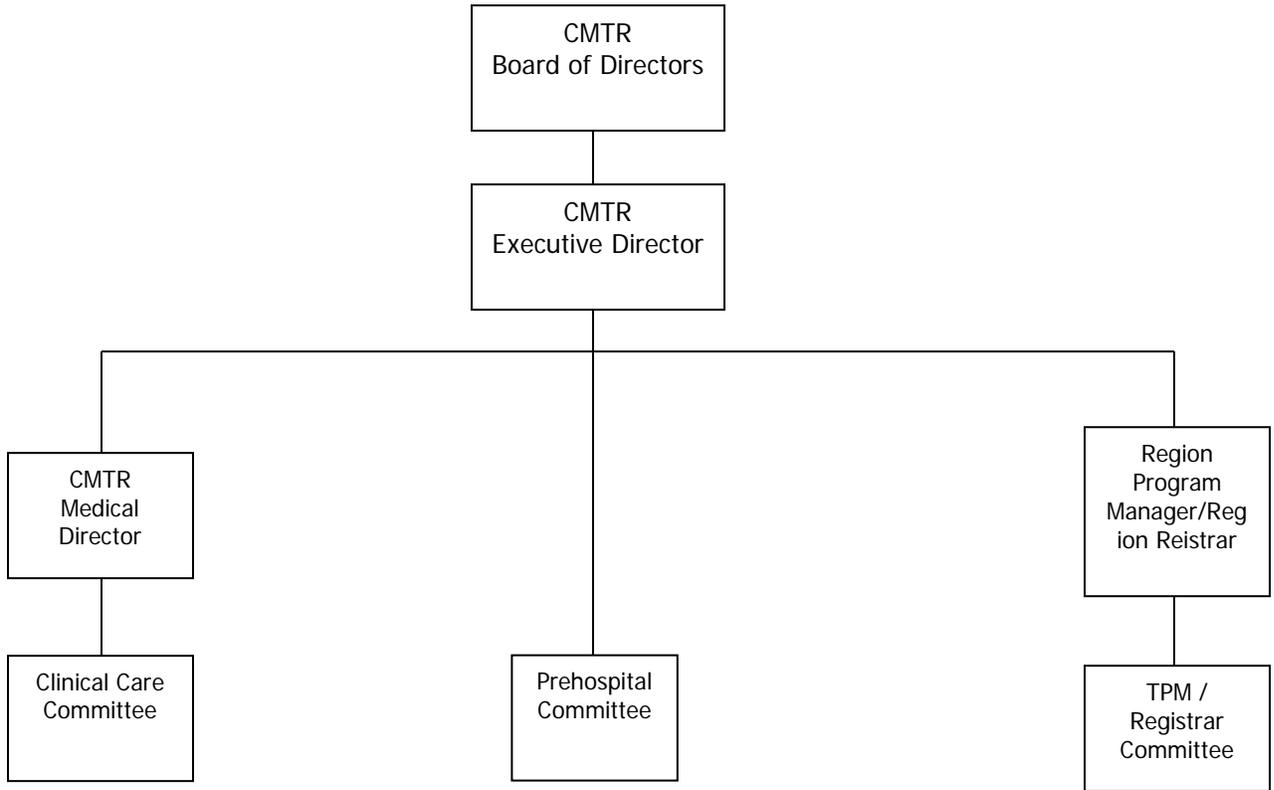
III. REGIONAL ADMINISTRATION

The CMTR is a not-for-profit 501(c)(3) organization which is governed by a 26 member Board, consisting of representatives from within the 15-county area (appendix). Organized in 1999 as authorized by Mississippi law and related rules entitled "The Mississippi Trauma Care System Regulations," the CMTR elected to hire a part-time Executive Director to serve as Regional Administrator.

Job tasks of the Executive Director include the following:

- Prepare a regional trauma plan with all components as identified in the Mississippi Trauma Care System Regulations
- Obtain approval of the required trauma plan by the CMTR Board
- Obtain approval of the regional trauma plan by the Mississippi State Department of Health, Bureau of EMS/Trauma
- Approve certification to the Mississippi State Department of Health, Bureau of EMS/Trauma that the required plan is functioning as designed and approved
- Facilitate all meetings of the CMTR board and other committees as may be established by the Board, i.e. regional advisory committees, clinical, administrative, and system committees
- Facilitate and direct the financial support of the CMTR from local, state, and federal sources, if any
- Establish and manage a regional trauma registry for CMTR for system evaluation
- Coordinate regional performance improvement (PI) programs and report accordingly to the State
- Assist hospitals with the trauma center designation process
- Coordinate the regional pre-hospital (EMS) system

Organizational Chart



CMTR Personnel

The success of the developing trauma system among the member counties of the CMTR will eventually dictate the full-time availability of a regular trauma system staff. This plan reflects a part-time staff, supported by contractual personnel, that is responsible for developing the regional program and enhancing the knowledge and cooperation of trauma support staff and facilities throughout the region.

Following the concepts outlines in the National Model Trauma Plan, the Mississippi Trauma Care Systems Regulations, and the experiences of other trauma systems throughout the country, the CMTR staff (all part-time/contractual) identified in this plan are as follows: Regional Executive Director, Regional Trauma Medical Director, Regional Trauma Program Manager, and Regional Trauma Registrar.

Regional Executive Director

The Regional Executive Director is responsible, under the direction of the CMTR Board of Directors, for the trauma system, to include planning, implementation, and management of the inclusive regional trauma system.

Regional Trauma Medical Director

The Regional Trauma Medical Director directs the development of the medically related system components. Working with the region Clinical Committee, the Regional Trauma Medical Director leads the multidisciplinary activities of the regional trauma program; analyzes the impact and results of the system and works with the Regional Executive Director and CMTR Board of Directors to make appropriate modifications to assure the highest possible level of patient care.

Regional Trauma Program Manager

The Regional Trauma Program Manager works closely with the Regional Trauma Medical Director as well as the Regional Executive Director to assist in system design and evaluation as both relate to nursing and other ancillary staff. This program manager works with all the regional facilities' trauma program managers regarding regional issues as well as specific facility issues. This person serves as the chair of the Trauma Program Manager/Registrar Committee and is responsible for its function.

Regional Trauma Registrar

The Regional Trauma Registrar manages the regional trauma registry and assists the Regional Executive Director, the Regional Trauma Medical Director, and the Regional Trauma Program Manager in system evaluation.

Support Services

The CMTR needs a regional office facility to conduct all regional administrative tasks. Rented office space in Madison serves as that facility and supplies related office needs (supplies, telephones, etc). Adequate meeting space is available at member facilities, including Crossgates River Oaks Hospital and at University of Mississippi Medical Center to host all CMTR Board meetings and other related committee meetings.

Three committees assist the CMTR and its regional management structure – Clinical Care, Trauma Program Manager/Registrar, and Pre-Hospital Committees.

Financial Management

Currently, funding of all program activities is provided by the State through annual allocations of designated trauma regions with funds available in the Mississippi Trauma Care Trust Fund. The State has provided funding via a cost of readiness model, which includes EMS funding for the first time. No other funding sources are currently available.

IV. MEDICAL ORGANIZATION

There are 20 hospitals with emergency rooms within the geographic area of the CMTR.

The currently designation of these hospitals is as follows:

- Level I trauma center (1)
- Level 2 trauma center (0)
- Level 3 trauma center (2)
- Level 4 trauma center (0)
- Non-participating Level 2 trauma center (1)
- Undecided Level 4 trauma centers (1)

Each designated trauma center has a physician representative serving on the Clinical Committee of the CMTR. This approach to regional organization assures medical system leadership of the regional trauma program is an equal basis. Additionally, a trauma physician has been designated by CMTR to serve as the Regional Medical Director for the trauma system. This physician, working through the regional Clinical Committee, leads the clinical activities of the regional trauma program.

Medical control in the CMTR is provided by the University of Mississippi Medical Center, through its MedCom emergency medical communications center. Each pre-hospital providers has a medical director and a medical control plan, which is required by the State for licensure of the pre-hospital provider's service. Most pre-hospital providers (except American Medical Response) within the CMTR are members of the Central Mississippi EMS District. EMS providers are required to adhere to the CMTR pre-hospital trauma protocol and destination guidelines.

V. INCLUSIVE SYSTEM DESIGN

The inclusive design of the CMTR trauma system is founded upon the goal of providing optimal medical care to all injured persons within its boundaries. Additionally, the entire continuum of care – prevention, pre-hospital, acute, and rehabilitative care – has been considered in the system design of the CMTR.

Facilities

The 15-county area of the CMTR has 20 hospitals with functioning emergency departments.

Attala County	Montfort Jones Memorial Hospital	Level IV
Claiborne County	Patient's Choice Hospital	Level IV*
Copiah County	Hardy Wilson Memorial Hospital	Level IV*
Hinds County	Central Mississippi Medical Center	Level III****
	Mississippi Baptist Medical Center	Level II***/#
	St. Dominic Hospital	Level IV***
	University of Mississippi Medical Center	Level I
Holmes County	University of Mississippi Medical Center – Holmes	Level IV
Jefferson County	Jefferson County Hospital	Level IV
Leake County	Leake Memorial Hospital	Level IV
Madison County	Madison County Medical Center	Level IV
Rankin County	Crossgates River Oaks Hospital	Level IV****
	River Oaks Hospital	Level III
Scott County	Lackey Memorial Hospital	Level IV**
	Scott Regional Medical Center	Level IV
Simpson County	Magee General Hospital	Level IV
	Simpson County Hospital	Level IV
Smith County	No hospital	
Warren County	River Region Medical Center	Level IV

Winston County	
Winston County Medical Center	Level IV
Yazoo County	
Kings Daughters' Hospital	Level IV

- * *Level IV designation is pending*
- ** *Potential Level IV trauma center which is undecided on participation*
- *** *Potential Level II trauma center*
- **** *Trauma center providing burn care*
- # *Potential Level II and Level IV trauma centers who are not participating*

VI. REGIONAL PARTICIPATION

Hospital facilities and staff within the CMTR are committed to the development of a regional trauma program. The designated trauma centers in the CMTR have worked diligently to establish a functioning regional trauma program.

The designated trauma center will:

- Submit accurate timely data to the State and Region
- All committee members will attend >50% of meetings held in the region Monthly submit require PI data to Regional Trauma Program Manager and/or Regional Executive Director. The timeframe is the same as State's data submission deadline, which is a month plus 6 days. Written documentation for late data submission is required and will be reviewed by region staff. With a limit of three a year, additional delinquencies will be sent to the Board for possible intervention by the State.
- Community Outreach: Designated trauma centers must participate in Region community projects/education established by the Trauma Program Manager/Registrar Committee.

Participation reports will be presented to the CMTR Board of Directors routinely, but not less than quarterly. The CMTR Board will use these reports to verify compliance/non-compliance with eligibility requirements of the State.

VII. OPERATIONAL SYSTEM DESIGN

Pre-hospital

The member counties of the CMTR have years of experience in participation with a state recognized regional EMS system. The main components of the CMTR pre-hospital system are advanced life support licensed ground ambulance systems and numerous first responders/fire rescue departments.

American Medical Response Ambulance Service serves the following counties within the CMTR; Claiborne, Hinds, Jefferson, Madison, Rankin, Simpson, Smith, and Yazoo counties. MedStat Ambulance Service serves Attala and Holmes counties. Carthage Ambulance Service serves Leake and Scott counties. Hardy Wilson Ambulance is the sole hospital-based service and serves Copiah county. Vicksburg Fire EMS is the sole fire department-based ambulance service and serves Warren county. MedStat, Carthage Ambulance, Hardy Wilson Ambulance, and Vicksburg Fire Department EMS are all members of the Central Mississippi EMS District.

The CMTR is also served by UMC AirCare and MedStat Air aeromedical transport services. Mississippi has implemented a state of the art pre-hospital data collection system. All pre-hospital providers utilize this standardized data system. This system affords the CMTR the flexibility of integrating the pre-hospital data with the region's trauma registry data. Pre-hospital providers are currently trained in trauma triage and principles of field resuscitation of trauma patients and meet all the State requirements for education and certification.

During CY 2013, pre-hospital personnel in the CMTR will continue to receive additional training in Trauma Triage Criteria. Data collected will be used in evaluating compliance with these triage criteria and associated treatment protocols. Variances in compliance will be reported to the CMTR Board of Directors for possible intervention by the State.

First Responders

Additional and valuable pre-hospital response comes through first responder programs within the public, law enforcement agencies, and local rescue squads. These responders often significantly shorten initial treatment response times, which proves invaluable in rural states like Mississippi.

It is the responsibility of each licensed ambulance provider within the Region to work with regional staff to assure that their respective county first responder organizations understand and comply with regional trauma policies and protocols. Variances will be reported to the CMTR Board of Directors for possible intervention by the State.

Mutual Aid

While the MCTR boasts the availability of significant numbers of pre-hospital responders, the need for mutual aid agreements with adjacent EMS systems will be investigated.

Injury Prevention

Mississippi has developed a state level strategy for injury prevention activities entitled "The Five-Phase Public Awareness and Prevention Campaign," the strategy (plan) defines and accepts the responsibility of the development of the injury prevention program and coordination of it through the region trauma programs.

During CY 2013 the CMTR will continue the development of its plan for public information, education, and prevention. Additionally, it will seek involvement from local chapters of support groups like AARP, MADD, SADD, Red Cross, and others. When the State plan is scheduled for implementation, the CMTR will coordinate its activities accordingly.

Data obtained from the Regional Trauma Registry will continue to drive the types of injury prevention projects needed in the Region. The following is a list of injury prevention projects completed in past fiscal year:

- Seatbelt Awareness for Teenagers and Young Adults
- ATV Education
- Distracted Driving

Individual hospitals in the Region have presented several important community education programs. Some examples are:

- Bicycle Safety
- Take Care – Education for the senior citizens on fall prevention, medications, and home safety

Presently CMTR staff is obtaining data to determine the types of injury prevention projects for CY 2013. The regional staff will continue to develop and review regional data when available and continue making recommendations as appropriate to CMTR committees. The staff will continue to work on education topics and injury prevention.

Education

The CMTR sponsors courses for physicians, nurses, and EMS. The following is a list of courses sponsored or underwritten by the CMTR:

- Trauma Nurse Core Curriculum (TNCC)
- Emergency Nurse Pediatric Course (ENPC)
- Advanced Trauma Life Support (ATLS)
- Advance Trauma Care for Nurses (ATCN)
- Pre-hospital Trauma Life Support (PHTLS)
- Basic Trauma Life Support (BTLS)

- Critical Care Paramedic (CCEMT-P)
- Advanced Burn Life Support (ABLS)
- Trauma Outcomes Performance Improvement Course (TOPIC)

Training for Collector Registry is provided to individuals and facilities on an as-need basis throughout the Region.

Classes in TNCC and ENPC are offered by trauma program managers in the Region to assist in the education of nurses throughout the State.

Regional Outreach

The trauma program managers and registrars meet on a monthly basis. The goals of the committee are to assist in developing the Regional Trauma Plan, to review issues and deficiencies, to plan education events for the CMTR, and to plan injury prevention projects.

During the CY 2013 the group will continue to develop and review available regional data and continue making recommendations as appropriate to CMTR committees. Additionally, this group will continue to work on education topics and injury prevention.

VIII. REGIONAL CRITICAL CARE

The critical care capabilities within the CMTR will be formally reassessed. The results of that detailed review will serve as the foundation for development of a critical care plan for the region.

As part of this regional trauma plan, four critical care areas are discussed: neurosurgical, burns, pediatric, and rehabilitation.

Surgery Coverage

The CMTR has one designated Level I trauma center which provides 24-hour coverage for surgery, neurosurgery, and orthopedic surgery.

Burn Coverage

Serious burn patients are transferred from the CMTR to the J.M. Still Burn Center in Georgia. Criteria for transfer to the burn center are:

- Adult 30% BSA without airway compromise
- Peds 15% BSA without airway compromise

All other burn patients are treated within the region, with most treated at the J.M. Still facility at Crossgates River Oaks Hospital (recently relocated to Central Mississippi Medical Center) or at UMC.

Pediatric Coverage

Pediatric trauma patients are currently evaluated in the receiving emergency room; however, most are transferred, particularly neurosurgical patients, to UMC.

Rehabilitation

Most patients are transferred to Mississippi Methodist Rehabilitation Center in Jackson.

IX. PERFORMANCE IMPROVEMENT

The purpose of the Performance Improvement Plan is to establish a standardized method of trauma system evaluation for the Region. Using the results of these evaluations, changes appropriate for improved trauma care are factually justified for implementation. Within the CMTR, the Region Trauma Registry serves as the foundation of the Performance Improvement Plan. Established at the Trauma Program office at University Medical Center, the Regional Registry represents aggregate data from all Regional hospitals. A Regional Registrar manages the Regional Registry. In addition to the submission of trauma data to the State, reports can be produced for the CMTR Board of Directors and Region Committees. In addition to the Regional Registry, EMS providers, nurses and physicians bring performance improvement issues to the table for evaluation and loop closure. These committees monitor trauma system development processes, outcomes, and all other related performance improvement processes.

With the advent of data being sent to the Region on a monthly basis, performance improvement issues have been identified and data collection has begun. Trauma issues to be monitored include:

- Transfer length of stays, issues identified with transfers, appropriate facility transferred to and the types of injuries transferred. The goal is 90 minute length of stay for Level IV facilities.
- Compliance with statewide trauma activation criteria.
- Pre-hospital notification >15 minutes on alpha patients.
- Pediatric intubation attempts >1
 - Pediatric is defined as age of 15 or less.
 - Threshold: 1 attempt should be made on pediatric intubation by an individual.
- Scene time >20 minutes
 - Threshold: Scene time will be less than 20 minutes on all alpha patients.
- Hospital destination appropriate on all alpha patients.
 - Threshold: Regional destination criteria followed on all alpha patients.
- Documentation of ambulance run record left when patient brought into the Emergency Department.
 - Threshold: 90% compliance
- Pre-arrival notification on all alpha patients >15 minutes
 - Notification to the ED is not less than 15 minutes on all alpha patients.

In order to reduce variations of care, once an issues is identified, the appropriate Region Committee will develop a plan to correct the identified issues. The plan must include what the desired changes are, who is assigned to resolve the issue, and a detailed

narrative that describes actions that will be taken. Mississippi EMS statutes (41-59-9, *Mississippi Code Annotated*) mandates pre-hospital provider's compliance with this Trauma Plan, including these Performance Improvement policies and procedures. Non-compliance with this policy will be considered a violation of the Mississippi law and EMS Rules and Regulations, and will be reported to the Division of EMS, MSDH for administrative enforcement.

Three months after the corrective action plans has been implemented, the issue identified will be re-evaluated. Upon re-evaluation, all of the issues not corrected will be documented. The pre-hospital agency will receive this documentation and must provide evidence that any finding has been corrected.

The CMTR will abide by the laws of the State of Mississippi regarding confidentiality. Patient names or other identifying criteria will not be used in reports or audits that are distributed to the CMTR Board of Directors or to the State. Any records received by the Region will be stored under lock and key until destroyed.

X. REGIONAL POLICIES

The CMTR developed and adopted the following policies as required by *The Mississippi Trauma Care System Regulations*.

1. System Organization and Management
2. Trauma Care Coordination within the Region
3. Trauma Care Coordination with Neighboring Regions
4. Criteria for Activation of Trauma Team
5. Availability of Trauma Team Personnel and Equipment
6. Integration of Pediatric Hospitals
7. Coordination of Transportation
8. Aeromedical Transport
9. System Evaluation and Performance Improvement
10. Data Collection and Management
11. Professional and Staff Training
12. Public Information and Education
13. Injury Prevention Programs
14. Research

Central Mississippi Trauma Region

Subject: System Organization and Management

Purpose: To provide organizational structure and administrative command and control for the Central Mississippi Trauma Region.

Policy: The Central Mississippi Trauma Region shall develop and maintain operations for the trauma program in the geographic region delegated by the State Department of Health.

- A. The Central Mississippi Trauma Region is comprised of the following counties: Attala, Claiborne, Copiah, Hinds, Holmes, Jefferson, Leake, Madison, Rankin, Scott, Simpson, Smith, Warren and Yazoo. Each participating facility within the geographic confines of the region shall declare its intention to participate in the Trauma System, and shall have representation on the Regional Board of Directors, and on the Regional Advisory Council.
- B. The region shall incorporate as a Mississippi not-for-profit corporation, under the direction of a board of directors, according to regional Bylaws.
- C. The Central Mississippi Trauma Region's voting membership shall consist of the geographically eligible hospitals participating in the Mississippi State Trauma Care System. Participating hospitals must be certified trauma centers.
- D. Additional members may participate on a non-voting status upon approval of the regional board.
- E. The regional board shall develop and maintain a trauma plan in accordance with the requirements established by the Mississippi Department of Health.
- F. The regional board shall appoint some person or entity that shall have administrative authority over the daily operations of the Central Mississippi Trauma Region. The Region may retain administrative staff to oversee the day-to-day activities of the Region, promulgate administrative policies and procedures, and oversee development of the Region's Trauma Plan
- G. Voting and non-voting members shall participate in the Central Mississippi Trauma Region as specified in the board's bylaws and other policies.
- H. Each voting member shall develop and maintain a Mississippi Department of Health certified trauma program.
- I. The medical activities of the Region are overseen by the Regional Medical Director.
- J. All information submitted from voting and non-voting members to Central Mississippi Trauma Region shall be considered proprietary. Member organizations shall not use region's proprietary information for individual organization gain.

Approved by the Board of Directors on July 17, 2003.

Central Mississippi Trauma Region

Subject: Trauma Care Coordination within the Region

Purpose: To establish and maintain cooperation among the agencies participating in the regional trauma plan.

Policy: The Central Mississippi Trauma Region shall develop and maintain a system designed to facilitate cooperation among the agencies participating in the regional plan.

- A. The system shall provide for regional medical control to include criteria for activation of the trauma team. Regional medical control shall be in the form of cooperating individual participant hospitals. Regional medical control shall provide for
 1. Criteria for bypass
 2. Criteria determining a hospital's level of trauma team activation
 3. Survey to determine capabilities of region's ability to provide trauma care
- B. The system shall require the Central Mississippi Trauma Region to develop a transfer agreement for use among the participating hospitals located in the region.
- C. Hospitals shall develop and provide to the Central Mississippi Trauma Region their individual trauma plans and team activation procedures.
- D. All agencies shall report to the Central Mississippi Trauma Region their clinical and operational capabilities regarding trauma care. This is to include but is not limited to facilities, medical specialties and communication capabilities.

Approved by the Board of Directors on July 17, 2003.

Central Mississippi Trauma Region

Subject: Trauma Care Coordination with Neighboring Regions

Purpose: To provide the mechanism for coordinating trauma care between the Central Mississippi Trauma Region and other regions located in Mississippi.

Policy: The Central Mississippi Trauma Region will facilitate the establishment and maintenance of agreements between the participating hospitals and EMS agencies of the Central Mississippi Trauma Region and those participating facilities and EMS agencies of neighboring and other regions.

- A. Trauma centers shall establish and maintain transfer agreements approved by the Mississippi Department of Health.
- B. Each EMS agency, including hospital based agencies, shall attempt in good faith to establish mutual aid agreements with all adjacent EMS agencies.
- C. The Central Mississippi Trauma Region shall maintain contact with neighboring trauma regions and the State Department of Health to monitor the status of and changes to the Mississippi Trauma Care System and regions. The Central Mississippi Trauma Region shall incorporate any Mississippi Trauma Care System changes and consider changes in other region's plans into the Central Mississippi Trauma Region 's Performance Improvement Plan.

Approved by the Board of Directors on July 17, 2003.

Central Mississippi Trauma Region

Subject: Criteria for the Activation of the Trauma Team

Purpose: To provide hospitals in the Central Mississippi Trauma Region with guidelines for the activation of their respective trauma systems.

Policy: All participating hospitals in the Central Mississippi Trauma Region shall establish criteria for the activation of their respective trauma systems according to the current statewide trauma activation criteria. These criteria will be clearly noted in each institution's trauma policy.

Current listing of criteria may be found in Appendix B of the Mississippi Trauma Rules and Regulations located on the Mississippi Department of Health website.

Approved by the Board of Directors on July 17, 2003.

Revised January 1, 2013

Central Mississippi Trauma Region

Subject: Availability of Trauma Center Personnel and Equipment

Purpose: To ensure regulatory compliance with Mississippi Trauma Care System requirements regarding the availability of resources.

Policy: All participating hospitals in the Central Mississippi Trauma Region shall comply with Mississippi Trauma Care System requirements by maintaining a constant state of readiness consistent with their level of certification.

- A. All hospitals shall have a designated trauma team consisting of physicians, specialists, nursing, and clinical ancillary personnel which should be either present or on-call and promptly available. Emergency department physicians must always be present in Level I, II and III hospitals and be available to Level IV hospitals.
- B. Facilities at each level shall develop written policies describing the roles of all personnel on the trauma team, the availability of team members, and certification requirements for team membership. These policies shall comply with the requirements for trauma teams at each level, as set forth in the *Mississippi Trauma Care System Regulations*.
- C. All facilities shall have a designated system for alerting and ensuring response times of appropriate staff. Methods of activation may include but are not limited to cell phones, pagers, two-way radios, or maintaining on-call staff on premises. Response times shall be documented and provided to the Region. (See Data Collection and Management). . In some facilities, a tiered response may be appropriate. Suggested compositions of the trauma teams in each level facility are set forth in the respective sections of the *Mississippi Trauma Care System Regulations*.
- D. Surgeons, orthopedic surgeons, anesthesiologists, radiologists, neurosurgeons, and emergency medicine physicians must be appropriately boarded or fulfill alternate criteria per Mississippi guidelines. As required by the *Regulations*, the director of the emergency department, along with the facility's trauma director, shall establish trauma-specific credentials that should exceed those that are required for general hospital privileges. Examples of credentialing requirements would include skill proficiency, training requirements, conference attendance, education requirements, ATLS verification and specialty board certification. Physicians shall maintain adequate CEUs, and general surgeons and emergency medicine physicians should additionally be certified in ATLS within three to five years. CRNAs must be licensed to practice in the State of Mississippi.
- E. Each facility shall have written protocols for notification of specialists. Availability of specialists should be regularly inventoried, and on-call schedules shall be maintained to ensure coverage. The emergency medicine physician is responsible for notifying specialists based on predetermined response protocols. The ED physician will provide leadership and care for the trauma patient until arrival of the specialist in the resuscitation area.
- F. Each facility shall have available all necessary equipment to carry out the clinical components prescribed for the level at which the facility is certified. All equipment

used in trauma care shall be in working order, adequate for need and level, and meet appropriate current FDA requirements for patient care. Each facility should designate appropriate personnel to conduct periodic inventories of equipment to ensure continuing compliance.

- G. Hospitals experiencing a temporary loss of equipment capability due to failure or repair shall arrange for replacement of equipment and/or proactively arrange for patient transfer or bypass as deemed necessary by that hospital's medical control.

Approved by the Board of Directors on July 17, 2003.

Central Mississippi Trauma Region

Subject: Integration of Pediatric Hospitals

Purpose: To provide for pediatric trauma care.

More children die from injury than from all other causes combined. The societal impact of intentional and unintentional injury is staggering, and the effect of pediatric injury in terms of lost human potential, cost to society, and impact on families is especially overwhelming.

Effective care of the injured child requires an inclusive approach which recognizes injury as a major pediatric health problem, identifies effective strategies for prevention, improves systems of emergency care for children, and provides the most appropriate care available. Injured children require special resources which should be available at a trauma center dedicated to the care of injured children. However, because of the limited number and geographic distribution of children's hospitals, all injured pediatric patients cannot be cared for in these institutions. Therefore, other institutions must be available to provide this resource to the community and trauma care system.

Policy: The Central Mississippi Trauma Region shall integrate pediatric hospitals into the regional system.

- A. All designated trauma centers shall maintain a transfer agreement with a pediatric trauma center.
- B. Each facility shall arrange for transfer according to the agreement.
- C. Certain components must be present in any facility which cares for injured children. The traumatized pediatric patient has special requirements that go beyond the resources required for an adult trauma center. All adult trauma centers are required to function at one of the three levels of pediatric trauma care: tertiary, secondary and primary. The components which must be present in a trauma center designated to care for pediatric patients are set forth in the *Mississippi Trauma Care System Regulations*. (MTCSR §XVI. 16.2)
- D. At tertiary and secondary levels, trauma centers should credential their trauma surgeons to do pediatric trauma care. It is desirable that the primary level trauma center credential its trauma surgeons to do pediatric trauma care. (MTCSR §XVI. 16.2)
- E. The Central Mississippi Trauma Region shall facilitate and encourage the pediatric trauma center to provide educational and preventative information resources into the region's training, educational, and preventative services.
- F. The triage criteria set forth in "Guidelines for Prehospital Management", are designed to identify those patients at greatest risk for death or disability and who should be considered for expeditious transfer to Level I or II trauma centers. Referral to these centers must be protocol driven and continuously monitored by the performance

improvement process. Access to such care must be expeditious and must reflect *only* medical need.

Approved by the Board of Directors on July 17, 2003.

Central Mississippi Trauma Region

Subject: Coordination of Transportation

Purpose: The purpose of this is to provide guidance regarding the transportation of trauma patients.

Policy: Trauma centers and EMS agencies shall cooperate to effectively transport a trauma patient to the appropriate trauma center.

- A. The regional trauma system shall be activated through current methodology to include 911, *HP, or direct phone contact with a hospital.
- B. Local ambulance provider(s) shall be dispatched to scene under authority of provider's medical control.
- C. Local medical control shall direct ambulance provider to nearest appropriate trauma center and communicate necessary information to receiving trauma center if different facility
- D. Trauma center shall activate their response mechanism and facilitate transfer (if needed) to nearest appropriate higher-level facility. The method of transfer (air, ground) shall be determined by the provisions set forth in the transfer agreement and patient needs.
- E. All trauma patient transport vehicles shall conform to the rules and regulations of the Mississippi State Department of Health.
- F. Individuals with identifiable injuries and combinations of injuries and injury mechanisms which result in high mortality should be considered for early transfer after initiation of appropriate resuscitation efforts. See Table, "Criteria for Consideration of Transfer". These criteria are intended to prompt consideration for transfer and are not inclusive or hospital-specific.
- G. The decision to transfer an injured patient to a specialty care facility in an acute situation should be based solely on the needs of the patient and not on the requirements of the patient's specific provider network (PPO, HMO, AHP, etc.) or the patient's ability to pay. The subsequent decisions regarding transfer to a facility within a managed care network should be made, after stabilization, by the patient, family, and the responsible trauma surgeon.
- H. Federal legislation (COBRA) imposes civil penalties on individual practitioners and hospitals who fail to provide emergency care in a timely fashion. Additional elements in COBRA legislation relative to the obligations of the referring physician and facility include:
 - 1. Identify a facility with available beds and personnel before beginning the transfer.
 - 2. Do not transfer unstable patients, except for medical necessity
 - 3. Provide appropriate transportation with a vehicle augmented with life-support equipment and staff to meet the anticipated contingencies which may arise during transportation

4. Send all records, including test results and X-rays, with the patient to the referring facility unless delay would increase the risks of transfer; then, send the information as soon as possible. Once the need for transfer is recognized, arrangements should be expedited and not delayed for diagnostic procedures that do not change the immediate plan of care.
 5. Issue a physician transfer certificate and consent for transfer to accompany the patient
- I. Receiving hospitals also have obligations under COBRA. Facilities which have entered into Medicare provider agreement who have specialized capabilities or facilities are obligated to accept the appropriate transfer of an individual requiring such services if the hospital has the capacity to treat them.
- J. Guidelines for Transferring Patients:
1. Transferring Physician Responsibilities
 - a. Initiate the transfer process by direct contact with the receiving surgeon
 - b. Initiate resuscitation measures within the capabilities of the facility
 - c. Determine the appropriate mode of transportation on consultation with the receiving surgeon or physician
 - d. Transfer all records, results and X-fays to receiving facility
 2. Treatment Prior to Transfer
The patient should be resuscitated and attempts made to stabilize his or her condition with respect to ABCDE.
 3. Receiving Physician Responsibilities
 - a. Ensure resources are available at the receiving facility
 - b. Provide advice/consultation regarding specifics of the transfer or additional evaluation/resuscitation prior to transport
 - c. Once transfer of the patient is established, clarify and identify medical control
 - d. Identify a PI process for transportation, allowing feedback from the receiving physician to the transport team directly or at least to the medical direction of the transport team.
 4. Management During Transport
During transport, continued management of vital functions and continuous reevaluation are essential:
 - a. Qualified personnel and equipment must be available during transport to meet anticipated contingencies
 - b. Sufficient supplies must accompany the patient during transport, such as IV fluids, blood, and medications as appropriate
 - c. Vital functions should be frequently monitored
 - d. Vital functions should be supported; for example, hemodynamics, ventilation, central nervous system, and spinal protection
 - e. Records should be kept during transport
 - f. Communication must be kept with on-line medical direction during transport
 5. Information to Accompany Patient

Information concerning the patient's condition and needs during transport should be communicated to transporting personnel. A written record containing the following information should accompany the patient:

- a. Available patient demographic information
 - b. Name of next of kin
 - c. Information concerning nature of injury event, time of occurrence, and prehospital care (run report)
 - d. Summary of evaluation and care provided at transferring facility, including results of diagnostic tests, X-rays obtained, injuries identified, patient's response to treatment, amount of fluids and blood infused, and chronologic record of vital signs, and urinary output.
 - e. Other helpful information, including medical history, current medications, medications/immunizations administered, and allergies
 - f. Name, address and phone number of referring physician, in case additional details are needed.
 - g. Name of the physician who accepted the patient at the receiving hospital
- K. Criteria for Consideration of Transfer: see Prehospital Protocols: Transfers; Coordination of Transportation

Approved by the Board of Directors on July 17, 2003.

Central Mississippi Trauma Region

Subject: Aeromedical Transport

Purpose: The purpose of this is to provide guidance regarding the aeromedical transport of trauma patients.

Policy: Trauma centers and aeromedical transport programs shall cooperate to effectively transport trauma patients to the appropriate trauma center.

- A. As a specialized transport service providing statewide service, the UMC helicopter is considered a Regional Resource, and shall adhere to the Region's policies and procedures for transport between transferring and receiving facilities within the Region.
- B. Prehospital aeromedical providers shall have a structured air medical safety program in place to guide prehospital personnel in establishing a safe landing site, proper loading procedures, communications with pilots and medical personnel, and safe procedures in proximity to an operating helicopter.
- C. Medical flight crews shall have a structured air medical educational curriculum and an ongoing performance improvement program.
- D. Procedures for requesting, dispatch and response of air transport shall be according to policies established by the aeromedical service. In cases where it is appropriate to transport a patient to a community hospital, the paramedic may request the launch of the UMC helicopter to a community hospital prior to or during transport of the patient to that hospital.
- E. Facilities utilizing helicopter transport services shall establish and maintain safe and appropriate landing zones on or near their hospital campuses. Landing areas may be subject to safety inspections, and facilities should be prepared to make changes as recommended.
- F. For situations where a helicopter is dispatched to a hospital landing area for direct loading of patients from ambulance to helicopter, or should policies permit scene flights or dispatch to pre-arranged landing zones, safety procedures shall be established to ensure the appropriateness and safety of landing areas, scene safety and security, and other procedures for safe and appropriate patient handling and management.
- G. A training program shall be developed by the aeromedical service to enable the safe landing of aircraft, safe and efficient loading of patients, and safe departure of the aircraft. This program should involve all personnel who could expect to assist in such situations: law enforcement/security, ED personnel, EMS, fire/rescue, etc.

Approved by the Board of Directors on July 17, 2003.

Central Mississippi Trauma Region

Subject: System Evaluation and Performance Improvement

Purpose: To improve performance of the system.

Policy: The Central Mississippi Trauma Region shall review and evaluate the regional trauma care system to improve performance.

- A. Performance improvement will occur at several levels; at the trauma system level, at each trauma center, at the prehospital level, and as part of research activities.

- B. The Region will develop a procedure for receiving information from EMS providers, Trauma Centers and the local medical community on the implementation of various components of the Region's Trauma System, including, but not limited to: (1) components of the Regional Trauma Plan, (2) triage criteria and effectiveness, (3) activation of trauma team, (4) notification of specialists and (5) trauma center diversion.

- C. Each trauma center shall participate in the statewide trauma registry.

- D. Each trauma center must develop an internal PI plan that minimally addresses the following key components:
 - 1. A multi-disciplinary trauma committee
 - 2. Clearly defined authority and accountability for the program
 - 3. Clearly stated goals and objectives, one of which should be the reduction of inappropriate variation in care
 - 4. Development of expectations from evidenced based guidelines, pathways and protocols
 - 5. Explicit definitions of outcomes derived from institutional standards
 - 6. Documentation system to monitor performance, corrective action, and the results of the actions taken
 - 7. A process to delineate privileges credentialing all trauma service physicians
 - 8. An informed peer review process utilizing a multi-disciplinary method
 - 9. A method for comparing patient outcomes with computed survival probability
 - 10. Autopsy information on all deaths when available
 - 11. Medical nursing audits
 - 12. Reviews of pre-hospital care, and times and reasons for both trauma bypass and trauma transfers

- E. The Central Mississippi Trauma Region shall collect and report data to the state and to participating hospitals. (See Data Collection and Management)

- F. The Central Mississippi Trauma Region shall evaluate and review the following for effectiveness:
 - 1. The components of the regional system
 - 2. Triage criteria and effectiveness

3. Activation of the trauma team
 4. Notification of specialists and ancillary personnel
 5. Trauma center diversions and transfers
- G. The Central Mississippi Trauma Region shall develop a performance improvement process that identifies root causes of problems and provides for continuous improvement of the system. The performance improvement process shall provide for input and feedback from patients, guardians (pediatrics), and provider staff.

Approved by the Board of Directors on July 17, 2003.

Central Mississippi Trauma Region

Subject: Data Collection and Management

Purpose: To provide a framework for collecting, recording and utilizing data for purposes of trending, root cause analysis, and performance improvement.

Policy: The Central Mississippi Trauma Region shall collect and report all necessary data as required by the Mississippi Department of Health. The Region shall also provide regular reports to the participating facilities.

- A. All Trauma Centers within the Central Region shall participate in the Trauma Care Region data collection effort in accordance with the Region's policies and procedures.
- B. All participating facilities shall report data and trending reports to the Central Mississippi Trauma Region no less frequently as semi-annually.
- C. The Central Mississippi Trauma Region shall provide an annual report to the participating agencies and to the State Department of Health as necessary.
- D. Data collected shall be used for performance improvement and system evaluation and shall include but is not limited to:
 - 1. Time flow data from reception of 911 to arrival at final destination
 - 1. Mechanism of injury
 - 3. Geographic location of injury and location of regional and final destination
 - 4. Circumstances contributing to injury
 - 5. Diagnosis Codes
 - 6. Number of trauma deaths and transfers to include reason(s) for each

Approved by the Board of Directors on July 17, 2003.

Central Mississippi Trauma Region

Subject: Professional and Staff Training

Purpose: To provide guidelines regarding the training of participants' healthcare providers in the care of trauma patients.

Policy: The Central Mississippi Trauma Region shall facilitate the provision of training opportunities for participating facilities and prehospital providers. Individual hospitals and physicians must maintain clinical qualification as specified by the Mississippi Trauma Care System Regulations.

- A. As specified by level designation, hospital staff is defined as nurses, allied health, and employed pre-hospital personnel.
- B. All personnel functioning at the BLS or ALS level receiving medical control through a licensed prehospital provider in the Central Mississippi Trauma Region fall within the operational guidelines of the Central Mississippi Trauma Region.
- C. The Central Mississippi Trauma Region shall transfer any provided information regarding trauma triage guidelines and operational procedural changes associated with trauma care to all participating hospitals and EMS providers located in the Region to maintain their current state of readiness. This may be through any means deemed appropriate by the board.
- D. All prehospital emergency medical care personnel rendering trauma patient care within the Central Mississippi Trauma Region shall be trained in the local trauma triage and patient care methodology.
- E. Individual facilities and providers are responsible for disseminating the information to their staff. The Central Mississippi Trauma Region shall assist with the coordination and promotion of any multi facility educational sessions on trauma care.
- F. The Central Mississippi Trauma Region shall provide training to hospital staff and prehospital providers on its trauma policies and procedures.
- G. Trauma surgeons and emergency room physicians are required to maintain ATLS and a yearly average of 16 hours (48 over three years) of CMEs as specified by hospital level and clinical specialty in the Mississippi Trauma Care System Regulations.
- H. The Central Mississippi Trauma Region shall relay any information regarding educational opportunities for physicians, nurses, and prehospital providers to the participating facilities and providers.

Approved by the Board of Directors on July 17, 2003.

Central Mississippi Trauma Region

Subject: Public Information and Education

Purpose: To provide a format for informing and educating the general public residing in the Central Mississippi Trauma Region and to provide regulatory oversight for the trauma-related public outreach and education conducted by the agencies participating in the trauma plan.

Policy: The Central Mississippi Trauma Region shall develop and maintain a program of public information and education. Participating agencies shall cooperate with the Central Mississippi Trauma Region regarding the promotion of their trauma programs.

- A. The Central Mississippi Trauma Region shall establish a network among its participating and other providers for the purpose of providing educational materials. The participating hospitals and other providers shall provide the informational and educational materials to the general public through any means deemed acceptable to the regional board.
- B. The Central Mississippi Trauma Region shall facilitate speakers, address public groups and serve as a resource for trauma education.
- C. The Central Mississippi Trauma Region shall assist its participating agencies in the development and provision of education to the public regarding the topics of injury prevention, safety education, and access to the system.
- D. No health care facility shall advertise in any manner or otherwise hold itself out to be a Trauma Center unless they have been so designated by the Department in accordance with the Mississippi Trauma Care Regulations.
- E. No provider of prehospital care shall advertise in any manner or otherwise hold itself out to be affiliated with the trauma system or a Trauma Center unless the provider of prehospital care has been so designated by the Department in accordance with the Mississippi Trauma Care Regulations.
- F. No participating agency shall use the terms "trauma center, trauma facility, trauma care provider" or similar terminology in its signs, printed material or public advertising unless the material meets the requirement of the Mississippi Trauma Care System Regulations as set forth in Mississippi Code Annotated 41-59-1.
- G. No participating agency may represent that any trauma-related public education program is conducted under the auspices or sponsorship of the Central Mississippi Trauma Region without the express written approval of the Region's Executive Director or Education Committee.
- H. All marketing and promotional plans relating to the trauma program shall be submitted to the Central Mississippi Trauma Region for review and approval, prior to implementation. Such plans shall be reviewed and approved based on the following guidelines:

1. The information is accurate
2. The information does not include false claims
3. The information is not critical of other system participants
4. The information shall not include any financial inducements to any providers or third parties.

Approved by the Board of Directors on July 17, 2003.

Central Mississippi Trauma Region

Subject: Injury Prevention Programs

Purpose: To provide a format for the Central Mississippi Trauma Region's participation in injury prevention activities.

Policy: The Central Mississippi Trauma Region shall participate in injury prevention activities.

- A. The Central Mississippi Trauma Region shall participate in injury prevention activities.
 - 1. If desired, each facility may request assistance from the Region, in writing, at least one month before commencement of the class or event.
 - 2. Assistance may consist of, but not be limited to, promotion, research, and acquisition of speakers.
 - 3. Financial assistance from the Central Mississippi Trauma Region may be provided by Board Resolution only. Individual facilities are otherwise financially responsible for their activities.
 - 4. No participating agency may represent that any trauma-related injury prevention program is conducted under the auspices or sponsorship of the Central Mississippi Trauma Region without the express written approval of the Region's Executive Director or the Region's Injury Prevention Committee

- B. The Central Mississippi Trauma Region shall facilitate and encourage the coordination of injury prevention activities with other regions.

- C. Each participating facility shall be encouraged to provide at least one injury prevention activity per year.

Approved by the Board of Directors on July 17, 2003.

Central Mississippi Trauma Region

Subject: Research

Purpose: To provide a format for the Central Mississippi Trauma Region's participation in and sponsorship of research activities.

Policy: The Central Mississippi Trauma Region shall participate in research activities.

- A. The Region shall encourage research to enhance perpetual study, redirection and improvement of injury surveillance and epidemiology, prevention, treatment and rehabilitation, financial studies (e.g., cost effectiveness and reimbursement issues), ethical, moral and legal dilemmas facing trauma care, and system organization, and ultimately, trauma patient outcome.
- B. Subject to availability of funding, the Region should financially support research activities. At the discretion of the Board of Directors, the Region may make application for grants and other sources of funding for research conducted by appropriate entities within the Region.
- C. Access should be assured to system providers for individual, regional or statewide projects that enhance trauma patient care.
- D. The Region shall develop policies for financial support and administrative review of proposed grant projects.

Approved by the Board of Directors on July 17, 2003.

XI. APPENDIX

- A. CMTR Board of Directors and Committee Members
- B. Bylaws of the CMTR
- C. Prehospital Trauma Protocols, Field Triage Scheme and Destination Guidelines
- D. EMS Mutual Aid Agreements
- E. EMS First Responder Rules and Guidelines - example

APPENDIX A

CMTR Board of Directors

Board of Directors and Regional Officers

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University of Mississippi Medical Center (I) – Administrative Representative
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Emergency Department Physician (active) - Representative
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Mr. Stephen Bomgardner – Secretary
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Mr. Clyde Deschamp – Treasurer
Prehospital Emergency Medical Services - Representative
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Mr. Stan Alford
Emergency Medical Services Representative

Wesley Vanderlan, MD
Clinical Peer Review Committee – chair

Ms. Pam Graves
Trauma Program Manager/Registrar Committee – chair

Mr. Mark Galtelli
Pre-Hospital Committee – representative

APPENDIX B

CMTR Bylaws

CONSTITUTION AND BYLAWS

of

CENTRAL MISSISSIPPI TRAUMA REGION

As approved by the Board of Directors on October 20, 1999,
and amended October 26, 2000, December 5, 2002, August 11, 2005, January 29, 2009, and January 18, 2011

ARTICLE I

Name

The governing body shall be known as the Board of Directors of Central Mississippi Trauma Region (“Trauma Region”).

ARTICLE II

Purpose and Mission

The purpose and mission of Central Mississippi Trauma Region is to provide the citizens of Central Mississippi a trauma care system which integrates member facilities within the region and is coordinated with the Statewide Trauma System as authorized under Mississippi Code §41-59-1, which coordinates the resources of member facilities, assists member facilities with problem-solving, and distributes grant proceeds made available through the State Board of Health.

ARTICLE III

Board of Directors

Section 1. Membership. The membership of the Board of Directors shall be limited to licensed Mississippi hospitals designated as a trauma center in the Statewide Trauma Program as defined in “The Mississippi Trauma Care System Regulations” established by the Mississippi Trauma Advisory Committee and the State Department of Health, Each participating hospital shall declare, and have certified, a Trauma Center Certification level as defined in the Regulations. The Board shall be comprised of 25 directors, but the Board may increase or decrease the number of directors without amending the bylaws. The Board shall consist of the Chief Executive Officer or designee from each designated trauma center located within the Region, one active trauma surgeon, one active emergency department physician, a physician

active in offline and online medical direction of prehospital emergency medical services, two representatives of prehospital Emergency Medical Services (EMS) appointed by the Central Mississippi EMS District, and each chairperson from standing Region Committees. Should the Board hire an Executive Director, he shall serve as an ex-officio member of the Board. Each director shall serve until such time as a replacement is designated in writing by the member hospital or by the Central Mississippi EMS District and as Region Committee chairperson changes. The EMS members and Committee chairpersons shall have all rights and privileges as Board Members, including voting rights, but shall be ineligible to serve as Chairman or Vice-Chairman.

Section 2. Meetings. The Board of Directors shall hold regular quarterly meetings, upon fifteen days' notice, which may be given by mail, email, or fax. The regular meeting held during the fourth quarter of the calendar year shall be known as the Annual Meeting. Special meetings may be held at the call of the Chairman, or in his absence, the Vice-Chairman, or at the call of any four Directors.

Section 3. Quorum. At any meeting of the Board of Directors, those members in attendance shall constitute a quorum for the transaction of business, provided, notice for such meeting has been given in the time and manner as set forth in Section 2, above. In the event of a quorum, the action of a majority of the Directors present and voting shall be necessary to bind the entire Board of Directors.

Section 4. Attendance. Members of the Board of Directors will be expected to attend all meetings and required to attend >50% of meeting during a calendar year; Section 5. Action Without Meeting. In the event that an urgent matter should arise which requires immediate action to protect or advance the interests of the Trauma Region, the Board may take any action which may be taken at a regular or special meeting of the Board if a consent in writing, received by mail or facsimile at the Region Office, setting forth the action so taken, shall be signed and approved by all Directors. If any Director shall dissent to taking action in this manner, no action shall be taken except at a regular or scheduled meeting. All action so taken shall be announced and noted in the Minutes of the next regular or special Board Meeting.

Section 6. Travel Expenses. Directors shall be entitled to submit mileage for travel to and from Board Meetings, which shall be reimbursed at the current rate set by the State of Mississippi.

ARTICLE V

Administration and Management

The Board of Directors may hire such administrative, managerial and clerical personnel as necessary to carry out the functions of the Region. The Board may contract for such services, and may authorize the Chairman to enter into contracts therefor. The Board of Directors may establish a fee schedule for membership in the Trauma Region, and/or, to the extent permitted by the Mississippi Trauma Care System Regulations, the Board of Directors may allocate a percentage of funds disbursed through the Trauma Region for expenses of the Region's administration and management.

ARTICLE VI

Officers

At each Annual Meeting, the Directors shall elect a Chairman, a Vice-Chairman, a Secretary, and a Treasurer, all of whom shall hold office for a period of one year or until their successors are duly elected. The term of office shall commence on the date of the Annual Meeting.

ARTICLE VII

Duties of Officers

Section 1. The Chairman of the Board of Directors shall exercise general supervision over all the affairs of the Trauma Region; preside at all meetings of the Directors; and be an ex-officio member of all standing Committees and may vote in case of tie votes by such Committees.

Section 2. The Vice-Chairman of the Board of Directors shall assist the Chairman in the performance of his duties and, in the absence or inability of the Chairman, the Vice-Chairman shall perform the duties and possess the powers and authority of the Chairman.

Section 3. The Secretary shall keep the minutes of the meetings of the Board of Directors and its standing Committees; record the names of all members present at each meeting; and notify all the Directors and members of the standing Committees at least seven days before the appointed time for meeting, and in such notification, if a special meeting, state the nature of the business for which the meeting is called. The Secretary shall act as Chairman in the absence

of the Chairman and Vice-Chairman, and when so acting, shall have all the power and authority of the Chairman.

Section 4. The Treasurer shall be the custodian of all funds of the Trauma Region. He is responsible to see that the Administration/Management/Contracted Agent of the Trauma Region or other person or entity maintains an accounting system in such a manner as to give a true and accurate accounting of the financial transactions of the Trauma Region, and he shall make certain that reports of such transactions are presented to the Board of Directors for the determination that all expenditures are made in accordance with state laws and to the best advantage of the Trauma Region.

Note: The use of any gender-specific term in these Bylaws is merely for brevity, and such terms shall be applicable to both genders.

ARTICLE VIII

Committees

Section 1. Following the Annual Meeting, the Chairman of the Board shall appoint the following standing Committees whose membership may be from the Board of Directors, the Administration/Management/Contracted Agent or other competent individuals at member institutions or other organizations as specified as follows:

A. Executive Committee. The Executive Committee shall consist of the Chairman, Vice-Chairman, Secretary, Treasurer and Executive Director and shall meet on an ad-hoc basis. In emergency situations, it shall have the power to transact all regular business of the Trauma Region within the determination of the Chairman, when a regular meeting of the Board of Directors is not feasible, provided, any action taken shall not conflict with the policies and expressed wishes of the Board of Directors at its next regularly scheduled meeting.

B. Clinical Peer Review Committee. This Committee is established pursuant to the terms of Mississippi Code §41-63-1 et. seq., which authorizes the formation of a Committee of a licensed hospital, the functions of which are to evaluate and improve the quality of healthcare rendered by providers of healthcare service, to evaluate the competence or practice of physicians or other healthcare practitioners, or to determine that healthcare services rendered were professionally indicated or were performed in compliance with the applicable standard of care. This Committee is formed in order to provide ongoing evaluation of the clinical aspect of

the Trauma Region, as well as the ancillary services provided by the Trauma Region, in an effort to improve medical care rendered to the patients of the Central Mississippi Region. The Peer Review Committee shall be comprised solely of physicians; it is recommended it be comprised primarily of surgeons and emergency physicians. Others may be appointed to assist the Committee on a case by case basis. General Counsel to the Trauma Region, if any, may participate in an investigative or advisory capacity to assist the Committee. The Committee may appoint others to participate in clinical peer review activities as deemed necessary. All investigations by the Clinical Peer Review Committee into events reported pursuant to the activities within the Trauma Region, shall be under the scope of the Clinical Peer Review Committee. All records generated by the Clinical Peer Review Committee shall be part of the records of the Clinical Peer Review Committee, and shall be confidential as provided by Mississippi Code §41-63-9, and by Mississippi Code §41-59-77, which provides for the confidentiality of Trauma Registry data. The Clinical Peer Review Committee shall review safety, infection control, medication variance, transportation issues, medical appropriateness, and other matters it deems essential to carrying out the goal of improving trauma care within the Region. The Trauma Region may contract for such services, provided, those services are also protected under the confidentiality provisions of the Mississippi Code. The Committee chair will be a member of the Board of Directors. The Committee must meet, at a minimum, once a quarter.

C. Trauma Program Manager/Registrar Committee. This Committee shall be established to advance the Region's goal of collecting and maintaining quality trauma registry data. The Committee will be responsible ensuring data submitted is accurate and valid for the use of this and other region and state Committees. The Committee shall be comprised of representatives of region designated trauma centers. This Committee is established pursuant to the terms of Mississippi Code §41-63-1 et. seq., which authorizes the formation of a Committee of a licensed hospital, the functions of which are to evaluate and improve the quality of healthcare rendered by providers of healthcare service, to evaluate the competence or practice of physicians or other healthcare practitioners, or to determine that healthcare services rendered were professionally indicated or were performed in compliance with the applicable standard of care. This Committee is formed in order to provide ongoing evaluation of the clinical aspect of the Trauma Region, as well as the ancillary services provided by the Trauma Region, in an effort to improve medical

care rendered to the patients of the Central Mississippi Region. General Counsel to the Trauma Region, if any, may participate in an investigative or advisory capacity to assist the Committee. The Committee may appoint others to participate in clinical peer review activities as deemed necessary. All investigations by the Committee into events reported pursuant to the activities within the Trauma Region, shall be under the scope of the Trauma Program Managers/Registrars Committee. All records generated by the Committee shall be part of the records of the Committee, and shall be confidential as provided by Mississippi Code §41-63-9, and by Mississippi Code §41-59-77, which provides for the confidentiality of Trauma Registry data. The Committee shall review safety, infection control, medication variance, transportation issues, medical appropriateness, and other matters it deems essential to carrying out the goal of improving trauma care within the Region. The Trauma Region may contract for such services, provided, those services are also protected under the confidentiality provisions of the Mississippi Code. The Committee chair will be a member of the Board of Directors. The Committee must meet, at a minimum, once a quarter.

D. Pre-hospital Committee. This Committee is established pursuant to the terms of Mississippi Code §41-63-1 et. seq., which authorizes the formation of a Committee of a licensed hospital, the functions of which are to evaluate and improve the quality of healthcare rendered by providers of healthcare service, to evaluate the competence or practice of physicians or other healthcare practitioners, or to determine that healthcare services rendered were professionally indicated or were performed in compliance with the applicable standard of care. This Committee is formed in order to provide ongoing evaluation of the clinical aspect of the Trauma Region, as well as the ancillary services provided by the Trauma Region, in an effort to improve medical care rendered to the patients of the Central Mississippi Region. General Counsel to the Trauma Region, if any, may participate in an investigative or advisory capacity to assist the Committee. The Committee may appoint others to participate in clinical peer review activities as deemed necessary. All investigations by the Committee into events reported pursuant to the activities within the Trauma Region, shall be under the scope of the Trauma Program Managers/Registrars Committee. All records generated by the Committee shall be part of the records of the Committee, and shall be confidential as provided by Mississippi Code §41-63-9, and by Mississippi Code §41-59-77, which provides for the confidentiality of Trauma Registry data. The Committee shall review safety, infection control, medication variance, transportation issues,

medical appropriateness, and other matters it deems essential to carrying out the goal of improving trauma care within the Region. The Trauma Region may contract for such services, provided, those services are also protected under the confidentiality provisions of the Mississippi Code. The Committee chair will be a member of the Board of Directors. The Committee must meet, at a minimum, once a quarter.

E. Quality Committee: This Committee is established pursuant of the terms of Mississippi Code §41-63-1 et. Seq., which authorizes the formation of a Committee of a licensed hospital, the functions of which are to evaluate and improve the quality of healthcare rendered by providers of healthcare services, to evaluate the competence or practice of physicians or other healthcare practitioners, or to determine the healthcare services rendered were professional indicated or were performed in compliance with the applicable standard of care. This Committee is formed in order to provide ongoing evaluation of the clinical aspects of the Trauma Region, as well as the ancillary services provided by the Trauma Region, in an effort to improve medical care rendered to the patient of the Central Mississippi Region. The Committee shall be comprised of the chairpersons of the standing region committees. Others may be appointed to assist the Committee on a case by cases basis. General Counsel to the Trauma Region, if any, may participate in an investigative or advisory capacity to assist the Committee. The Committee may appoint others to participate in clinical peer review activities as deemed necessary. All records generated by the Committee shall be part of the records of the Committee, and shall be confidential as provided by Mississippi Code §41-63-9, and by Mississippi Code §41-59-77, which provides for the confidentiality of Trauma Registry data. The Committee shall review safety, infection control, medication variance, transportation issues, medical appropriateness, and other matters it deems essential to carrying out the goal of improving trauma care within the Region. The Trauma Region may contract for such services, provided, those services are also protected under the confidentiality provisions of the Mississippi Code. The Clinical Care Committee chair will serve as the chair to this committee as well. The Committee must meet, at a minimum, once a quarter.

F. Additional Committees. The Chairman of the Board of Directors shall have the power to appoint such other standing or ad-hoc Committees using the resources and expertise of the Board of Directors as in the Chairman's discretion may be deemed necessary and proper. Ad hoc Committee chairs are not eligible to serve as a member of the Board of Directors.

Section 2. All Committees shall be governed by Bylaws approved by the Board of Directors. The Bylaws for each Committee shall set forth the purposes for which the Committee is established, its authority to act, Committee membership, officers and conduct of business.

ARTICLE IX

Conflict of Interest

The membership of the Board of Directors shall not be personally interested, directly or indirectly, in any contract or agreement with the Trauma Region during the term for which he shall have been chosen, or within one year after expiration of such term, and shall further comply with the provisions of Mississippi Code §25-4-105, as presently enacted or hereafter amended.

The Board of Directors shall have the power to remove any Director determined by a majority of the members of the Board to have a conflict of interest within the meaning of the “Ethics in Government” laws, the Bylaws of the Central Mississippi Trauma Region or any other statute or regulation. No Director may be removed without being notified of the issue of conflict of interest and without having first been given an opportunity to be heard by the Board of Directors at a regular meeting or a special meeting called for that purpose. The decision of a majority of the members of the Board on such issues following a full opportunity to be heard shall be final.

ARTICLE X

Disposition of Assets Upon Dissolution

Upon the dissolution of the Central Mississippi Trauma Region, all of its assets shall thereupon become the property of and inure to the benefit of the State of Mississippi, State Department of Health, and no part thereof shall inure to the benefit of any member hospital or of any individual.

ARTICLE XI

Compliance Plan

The Compliance Plan of the Central Mississippi Trauma Region adopted by the Board of Directors is made a part of the Constitution and Bylaws of the Trauma Region and is incorporated herein by reference as if fully copied herein.

ARTICLE XII

Amendments

These Bylaws may be altered, amended or repealed and new Bylaws may be adopted by the Board of Directors at any regular or special meeting of the Board of Directors.

APPROVED as amended by the Board of Directors, on this the 11th day of November, 2011.

Chairman of the Board of Directors

APPENDIX C

Prehospital Trauma Protocols, Field Triage Scheme and Destination Guidelines

- I. Guidelines for Prehospital Management of Trauma Patients
 1. Activation of Regional Trauma System
 2. General Approach to Assessment and Management of the Trauma Patient
 3. General Treatment Guidelines for Trauma Patients
 4. Selection of a hospital destination
 5. Additional Management of the Trauma Patient
 6. Pre-notification of Medical Control
 7. Specific Trauma Protocols
 - Basic Patient Management Standards
 - Cardiac Arrest Secondary to Trauma
 - Chest Injuries (Traumatic Respiratory Distress)
 - Head Trauma
 - Hypotension
 - Spine Trauma
 - Written Reports
- II. Transfers: Coordination of Transportation
- III. Aeromedical Transport
- IV. Prehospital Performance Improvement

I. Guidelines for Prehospital Management of Trauma Patients

The purpose of this policy is to provide EMS Agencies operating within the Central Trauma Region with general guidelines for prehospital triage and transport of the trauma patient.

1. Activation of Regional Trauma System

Current listing of criteria may be found in Appendix B of the Mississippi Trauma Rules and Regulations located on the Mississippi Department of Health website.

2. General Approach to Assessment and Management of the Trauma Patient

Management of the seriously injured trauma patient is notably different from management of the medical patient. Definitive treatment is generally available only in the surgery suite. The goals of patient care are to stabilize immediate life threats to the extent possible and to deliver the patient to a facility where surgical treatment can be provided.

- A. Scene times should be limited to 10 minutes or less in cases where multisystem or internal trauma is evident or suspected.
 - B. Extenuating circumstances will obviously extend this limit (e.g. multiple patients, entrapment, hazardous materials, etc.) In those cases scene time should be minimized as much as possible.
- C. Patients presenting with localized injury limited to extremities and not involving circulatory or neurologic compromise should have their injuries stabilized carefully prior to transport. Pain management should be considered a priority in cases of isolated extremity trauma when pain is moderate-severe and where no contraindications exist.

3. General Treatment Guidelines for Trauma Patients

- A. Perform primary and secondary assessment before patient movement unless scene hazards dictate otherwise.
- B. Correct airway and oxygenation problems promptly and monitor vital signs every 5 minutes or as frequently as resources allow.
- C. Immobilize the spine as part of primary survey if appropriate.
- D. For critical trauma patients or patients with a potential for deterioration, the ABCs should be assessed and managed where the patient is found. Other stabilizing procedures, including the starting of IVs, should be performed enroute to the hospital.
- E. Perform complete secondary survey prior to management of non-life threatening injuries.
- F. Immobilize and splint possible fractures prior to movement unless there is an urgent reason to delay.
- G. Manage more serious injuries before less serious ones (unless logistic reason for re-ordering priorities).
- H. Anticipate unstable conditions requiring immediate transport.
- I. Dress wounds if time and resources allow.
- J. IV lines
 - 1. IV fluids have minimal effect on the mortality rate of critical trauma patients. IV fluids run in rapidly tend to dilute the blood and reduce oxygen carrying capacity.

2. IVs should be started enroute except in cases of entrapment or multicasualty incidents.
3. Fluid should be infused at a rate to maintain a minimally acceptable blood pressure. For most patients a systolic level of 80-90 mm/hg is adequate.

4. Selection of a hospital destination

General Guidelines:

The principal purpose of the trauma system is to ensure that trauma patients receive prompt medical care at a level which is appropriate to their medical needs. These destination guidelines should not cause a substantial increase or decrease from historical transfer patterns in the volume of trauma patients treated at any given hospital. Any significant increase or decrease in trauma patient volume which cannot be explained by market conditions could threaten system viability.

To be effective, the trauma system must ensure appropriate allocation of patients among the facilities within the region commensurate with the facilities' capabilities and the patients' medical needs. Patients with severe or complicated injuries are promptly transported to a Level I or Level II Trauma Center, and those with injuries not likely to require surgical or specialty care intervention are routed to a Level III or Level IV facility, or non-participating hospital. Selection of a hospital destination must be a deliberate process.

Indecision results in over-triage, as minimally injured patients are transferred to trauma centers, and under-triage, as severely injured patients are taken to facilities lacking adequate critical-care capabilities. In general, priority is given to reduction of under-triage, which may result in preventable mortality or morbidity from delays in definitive care. However, reduction in over-triage should also be an objective, to ensure that the finite capacities of critical care facilities remain available to receive patients requiring surgical or specialty care.

As a general guideline, in cases where the need for surgical or specialty care can be anticipated with reasonable certainty, there should be no impediment to transport (or transfer) to a Level I or Level II Trauma Center. In less serious cases, where the necessity for surgical or critical care is unlikely, the patient should be routed to a Level III or Level IV facility, or non-participating hospital.

To ensure the continued viability and effectiveness of the trauma system, adherence to these destination policies will be continuously reviewed through the CMTR performance improvement process.

Specific Destination Guidelines:

Trauma patients with the following conditions should be transported to the closest appropriate hospital:

- Cardiac Arrest
- Non-patent airway
- Hemodynamic compromise indicated by deteriorating vital signs

Patient and or family request will be considered; however, hospital selection is determined by the EMS Provider and on-line Medical Control according to these guidelines and is based entirely in the best medical interest of the patient.

If the Paramedic/EMT has any doubt as to whether a patient is a major trauma victim, he/she should consult with Medical Control at the earliest stage possible in the patient's evaluation.

Patients should be transported directly to the nearest hospital capable of managing their emergency condition. In cases of severe trauma (RTS less than 11) this generally means a Level I or Level II Trauma Center. In cases where a patient is unstable and where a Level III/IV hospital is much nearer than a Level 1/11 hospital, the patient may benefit from initial stabilization at the Level III/IV hospital.

For patients with a RTS of less than 11:

1. **Level I or Level II Trauma Center Within Immediate Area:**

Patients presenting with conditions which will obviously or likely require surgical and/or critical care intervention, such as those with an RTS <11, should be transported directly to a Level I or Level II Trauma Center.

In cases where a patient presents with an RTS of 11 or greater but for whom a thorough assessment by the paramedic indicates that the patient has injuries likely to require services available only at a Level I or Level II Trauma center, the paramedic should contact online medical control to request approval to bypass local hospitals.

Patients presenting with conditions not likely to require surgical or critical care services should be transported to the nearest Level III, Level IV or non-participating hospital. This category includes patients with isolated extremity trauma, head and/or facial trauma without neurologic findings, and/or those with soft tissue injuries. Patients who select a Level I or Level II Trauma Center as their primary hospital destination should be encouraged to make an alternate selection.

2. **Level I or Level II Trauma Center Not in Immediate Area:**

Transport all patients to the nearest appropriate facility. If a thorough assessment by the paramedic indicates that it would be in the patient's best interest to bypass the local hospital(s) and transport directly to a Level I or Level II Trauma Center, he/she should contact Medical Control for approval. In areas where radio/cellular coverage prevents communication with Medical Control, the paramedic may bypass the local hospital(s) only in those cases where a local facility is without the capability to manage the patient's injuries, and transport to a Level I or Level II would be of obvious benefit to the patient's care.

3. The use of an EMS helicopter for transport of critical trauma patients may be beneficial. In cases where it is appropriate to transport a patient to a community hospital, the paramedic may request the launch of the UMC helicopter prior to or during transport of the patient to the local hospital.

REVISED TRAUMA SCORE

	Variables	Score	Start of Transport	End of Transport
A. Respiratory Rate (breaths/minute)	10-29	4		
	>29	3		
	6-9	2		
	1-5	1		
	0	0	_____	_____
B. Systolic BP (mm Hg)	>89	4		
	76-89	3		
	50-75	2		
	1-49	1		
	0	0	_____	_____
C. GCS Score Conversion C = D + E ¹ + F (adult) C = D + E ² + F (pediatric)	13-15	4		
	9-12	3		
	6-8	2		
	4-5	1		
	<4	0	_____	_____
D. Eye Opening	Spontaneous	4		
	To voice	3		
	To pain	2		
	None	1	_____	_____
E ¹ -Verbal Response, Adult	Oriented	5		
	Confused	4		
	Inappropriate words	3		
	Incomprehensible words ²	2		
	None	1	_____	_____
E ² . Verbal Response, Pediatric	Appropriate	5		
	Cries, consolable	4		
	Persistently irritable	3		
	Restless, agitated	2		
	None	1	_____	_____
F. Motor Response	Obeys commands	6		
	Localizes pain	5		
	Withdraws (pain)	4		
	Flexion (pain)	3		
	Extension (pain)	2		
	None	1	_____	_____
Glasgow Coma Score				

(Total = D + E^{1/2} + F)

REVISED TRAUMA

SCORE = A + B + C

(Adapted with permission from Champion HR, Sacco WJ, Copes WS, et al: A revision of the Trauma Score. Journal of Trauma 1989; 29(5):624.)

5. Additional Management of the Trauma Patient

For management issues not covered in this document the local EMS agency should adhere to its locally approved medical control plan.

6. Pre-notification of Medical Control

At the earliest possible time after leaving the scene, EMS agencies shall notify the receiving facility of impending arrival of Trauma Patients in order that the receiving facility can determine the number and type of patients they are capable of managing at that time.

All designated Trauma Centers are participants in the Hospital Status System. Each facility shall promptly post changes in its status on the HSS. Any Trauma Center going on or off Diversion shall notify local EMS Dispatch immediately.

EMS Service pre-notification of Central Mississippi Medical Control should include (1) an initial patient descriptor, (2) revised trauma score (3) scene vital signs (4) hospital destination and arrival time. Pre-notification should be done on all patients with $RTS < 11$. (As the necessary equipment becomes available, pre-notification information should be displayed on an LCD located within medical control.) The physician on-call or designee should be separately paged (by pager LCD display) of all patients with $RTS < 11$ for immediate contact of the receiving hospital to determine the need for ground or air ambulance transfer. An ambulance communication form should be completed for these physician contacts

The rationale for pre-notification is to reduce unnecessary emergency department delays in the evaluation of patients who may eventually need a higher level of care. The physician's role is to facilitate transfer or transport where an upgrade determination is made or is anticipated. Such a system will allow for a timed log of all trauma patients in the region with their initial destination.

Where appropriate agreements exist, pre-notification by outside EMS services may also be arranged.

7. Specific Trauma Protocols

- Basic Patient Management Standards
- Cardiac Arrest Secondary to Trauma
- Chest Injuries (Traumatic Respiratory Distress)
- Head Trauma
- Hypotension
- Spine Trauma
- Written Reports

Note: procedures indicated with a (P) are advanced-level procedures, and may be performed only by paramedics or authorized registered nurses.

BASIC PATIENT MANAGEMENT STANDARDS

- A. Priority of injuries.
1. Correct airway and oxygenation problems promptly and monitor vital signs.
 2. Recognize and respond promptly to emergent difficulties.
 3. Recognize and treat the different forms of shock.
 4. Immobilize cervical spine as part of primary survey if appropriate.
 5. Perform complete secondary survey prior to treatment.
 6. Dress wounds.
 7. Immobilize and splint possible fractures prior to movement unless there is an urgent reason to remove patient rapidly from a dangerous situation.
 8. Manage more serious injuries before less serious ones (unless logistic reason for re-ordering priorities).
 9. Anticipate unstable conditions requiring immediate transport.
 10. Rapid transport is an essential element of field trauma care. The goal when managing a seriously injured trauma patient is to stabilize and deliver to a hospital with surgical facilities ASAP.
 11. Maximum scene time for a seriously injured trauma patient should be 10 minutes. That time limit may be extended if extenuating circumstances exist.
 12. For critical trauma patients or patients with a potential for deterioration, the ABCs should be assessed and managed where the patient is found. Other stabilizing procedures, including the starting of IVs, should be performed enroute to the hospital.
- B. Patient movement
1. Do primary and secondary assessment before patient movement unless scene hazards dictate otherwise.
 2. Monitor airway while moving.
 3. Assume cervical spine injury until proven otherwise by x-ray.
 4. Roll as a unit.
 5. Splint prior to movement if possible. However, splinting should not delay beginning transport with a critically injured patient.
 6. Move the patient in a careful and controlled manner.
 7. Use proper body mechanics when lifting and moving patients.
 8. Do not allow others on the scene to lift or move your patient in an adverse manner.

CARDIAC ARREST SECONDARY TO TRAUMA

- A. *Information Needed*
1. Time without pulse prior to arrival
 2. Mechanism (Blunt vs. Penetrating)
 3. Salvageability
- B. *Physical findings*
1. Vital signs absent
 2. Pallor and/or cyanosis
- C. Determine salvageability
1. Cardiac arrest secondary to blunt trauma is generally not an indication to attempt resuscitation. Resuscitative efforts should only be attempted if the arrest is witnessed or if extenuating circumstances exist.
 2. Trauma arrests secondary to penetrating truncal injuries have a slightly better prognosis if treated aggressively. Prognosis is best in patients with low-velocity penetrating injury. Younger patients have a slightly better chance of survival.
 3. If uncertain, attempt to resuscitate!
- D. Treatment (Assuming that the patient is potentially salvageable)
1. Airway
 - a. Establish an airway as quickly as possible with respect for a potential spinal cord injury. However, do not delay establishing an airway.
 - b. Utilize a modified jaw thrust or similar maneuver to open and maintain the airway.
 2. Hyperventilate the patient
 3. Administer high flow oxygen via BVM
 4. Attach pulse oximeter if available
 5. Intubate
 - a. Attempt to keep the c-spine in a neutral position
 - b. Minimize neck movement
 6. Rapid immobilization/extrication
 7. Begin transport
 8. Establish two large bore IVs with NaCl
 9. ECG monitor
 10. Treat arrhythmias as for medical arrest (after other steps have been taken)
- E. Precautions--Rapid delivery to a facility with emergency surgical facilities (Level I or Level II Trauma Center) is of utmost importance
- F. The AED is intended primarily for use on medical patients. If the patient is in cardiac arrest secondary to trauma the following protocol should be followed:
1. If an AED is available before an ambulance becomes available, the device should be attached and used as outlined above.
 2. Once a transport vehicle becomes available, priority should be given to promptly transporting the patient to a hospital with emergency surgical capability. Transport

should not be delayed in order to perform defibrillation. The AED should not be used during transport of a traumatic cardiac arrest patient.

CHEST INJURIES

(Traumatic Respiratory Distress)

- A. Information Needed
1. Injury: mechanism and estimate of force involved, use of seat belts, vehicular damage (steering wheel, windshield)
 2. Patient complaints: chest pain, respiratory distress
 3. Past history: medical problems, medication
- B. Physical Findings
1. Vital signs
 2. Inspection: wounds, (nature, location, sucking) chest wall movement, flail, jugular venous distention, difficulty bagging, bruising
 3. Auscultation: breath sounds, bowel sounds, heart tones
 4. Palpation: tenderness, anatomic abnormalities, crepitus, subcutaneous air, tracheal position,
- C. Treatment
1. Assume neck injury if significant trauma involved
 2. Insure a patent airway
 3. Hyperventilate and intubate if needed
 4. Oxygen 15 l/mask.
 5. Attach pulse oximeter if available
 6. Open chest wound: cover with Vaseline-type gauze occlusive dressing taped on three sides, to allow air to escape but not enter the chest
 7. Assess for presence of tension pneumothorax
 1. Diminished breath sounds on affected side
 2. Hyperresonance on affected side
 3. Decreased compliance (difficult to ventilate)
 4. JVD
 5. Tracheal deviation (in advanced cases)
 6. If tension pneumothorax present:
 - a. Remove any occlusive dressing previously applied
 - b. Contact Medical Control
 - c. Consider pleural decompression
 - (1) **(P)*** Insert 14 or 12 gauge angiocath into 2nd intercostal space on the midclavicular line. Insert catheter directly over the top of the 3rd rib (to avoid nerves and blood vessels).
 8. Impaled objects should be stabilized and left in place
 9. Transport patient
 10. IV NaCl with large bore catheter at rate to attain/maintain BP of 90-100 systolic.
 11. Contact Medical Control
 12. **(P)** Monitor ECG
 13. Monitor vital signs frequently

D. Precautions

1. Prolonged treatment of chest trauma before transport is contraindicated if significant injury is suspected. If the patient is critical, transport rapidly and avoid treatment of non-emergency problems on the scene. Any penetrating injury, even if it appears stable, should be promptly transported.
2. Consider medical causes of respiratory distress which have either caused trauma or been aggravated by it.
3. Chest injuries sufficient to cause respiratory distress are commonly associated with significant blood loss.
4. Myocardial contusion may result from blunt chest trauma. Pain may be similar to that of typical myocardial ischemia. Arrhythmias, including AV block may result.
5. Clues to such an injury may include a bent or broken steering wheel, bruising to the anterior chest, or an unstable sternum.

HEAD TRAUMA

A. Information Needed

1. History: mechanism of injury, estimate of force involved, change in level of consciousness since injury, loss of consciousness - how long?, amnesia prior to and/or following trauma. With motorcycle and bicycle accidents, was helmet worn? Any movement noted by bystanders.
2. Past medical history, medications

B. Physical Findings

1. Vital signs (note respiratory pattern and rate)
2. External evidence of trauma (abrasions, lacerations, etc.)
3. Level of consciousness
4. Glasgow coma exam or other neurological exam, including pupils and response to stimuli

GLASGOW COMA SCALE

Eye Opening:

none	1
to pain	2
to speech	3
spontaneous	4

Best Verbal Response:

none	1
garbled speech	2
inappropriate words	3
confused	4
oriented	5

Best Motor Response:

none	1
abnormal extension	2
abnormal flexion	3
withdraws	4
localizes	5
obeys	6

TOTAL = _____

C. Treatment

1. ABCs. Have an assistant stabilize the neck.
2. Immobilize cervical spine with firm collar and immobilization device.
3. Stop bleeding with direct pressure. Be cautious when applying pressure to unstable areas of the skull.
4. Oxygen 4-6 l/min. (more if other complicating injuries are present)
5. Attach pulse oximeter if available
6. Be alert for airway problems and/or seizure activity
7. Secure airway with EOA or

- (P)** Place an endotracheal tube and ventilate if gag reflex absent. Be aware of possible cervical spine injury in choosing intubation technique.
- 8. Ventilate at a rate of 12 -16/ minute. DO NOT hyperventilate patients with closed head injury UNLESS the patient is rapidly deteriorating.
- 9. IV NaCl KVO. If patient hypotensive give 200 cc bolus. May repeat to maximum of 1,000 cc so long as chest remains clear and patient remains hypotensive. If no signs of hypovolemia IV should be strict KVO.
- 10. Monitor vitals and level of consciousness repeatedly at scene and during transport. STATUS CHANGES ARE IMPORTANT.
- 11. **(P)*** If transport time greater than 30 minutes and patient rapidly deteriorating consider Furosemide 40-80 mg IV.

D. Precautions

- 1. The most important information you provide for the base physician is a neurologic status trend. Is the patient stable, deteriorating, or improving?
- 2. Assume cervical spine injury in all patients with significant trauma above the clavicles.
- 3. If patient with head trauma is in shock, look elsewhere for cause. Shock is probably not due to head injury.
- 4. Restlessness can be a sign of hypoxia. Cerebral anoxia is the most frequent cause of death in head injury.
- 5. Scalp lacerations can be the source of significant blood loss. Control of the hemorrhage should be by direct pressure, not a bulky absorbent dressing. Do not apply excessive pressure over areas where unstable skull fracture is likely.
- 6. For interhospital transfers, insure that the C spine remains immobilized if there is any doubt as to the status of the patient's spine.

HYPOTENSION
(Traumatic)

- A. Information Needed
 - 1. Age
 - 2. Findings of thorough physical examination
 - 3. Medical history if available
 - 4. Medications

- B. Physical findings
 - 1. Decreased perfusion status (abnormal level of consciousness, nail bed return, oxygen saturation, etc.)
 - 2. Secondary complaints (chest pain, dyspnea, confusion, etc.)
 - 3. Primary causes

- C. Treatment
 - 1. ABCs
 - 2. Oxygen 15 l via non-rebreather
 - 3. Control hemorrhage, immobilize
 - 4. Begin transport
 - 5. Attach pulse oximeter if available
 - 6. IV .9% NaCl
 - 7. 200 cc fluid bolus (if chest clear). May repeat maintain BP of 80-90 to maximum of 1,000 cc so long as chest remains clear and patient remains hypotensive.
 - 8. Contact medical control

- D. Precautions
 - 1. Be cautious administering fluid to patients who are elderly or who have head injury.

Treatment Algorithm:
Hypotension due to Trauma

(BP < 90 or other signs/symptoms of inadequate perfusion)

ABCs (with concurrent spinal immobilization)

Oxygen 15 l/min via non-rebreather

Place patient in supine position

Attach pulse oximeter if available

IV NaCl with large bore catheter

Hypotension 2° to internal hemorrhage

YES NO Repeat to attain/maintain

maximum of 1,000 cc so long as chest remains clear and patient remains hypotensive.

NO

Hypotension 2° to controllable extremity hemorrhage

YES NO Replace lost volume

NO

Hypotension 2° to burns
(child 40 cc/kg) if breath sounds clear

YES NO May be repeated to total of 1,000 cc

Contact Medical Control

Transport patient

Notes:

1. Assume cervical injury in patients with significant upper body or head trauma.
2. Assess breath sounds carefully before administering large amounts of fluid.
3. Reassess vital signs and other indicators of perfusion frequently.
4. Do not force patient into supine position if poorly tolerated.
5. Rapid transport should be of utmost priority for unstable (or potentially unstable) trauma patients-
-IVs should be started enroute.

SPINE TRAUMA

- A. Information Needed
 1. Mechanism of injury and force involved
 2. Past medical problems and medications

- B. Physical Findings
 1. Vital signs
 2. Physical exam emphasizing neurological status; level of sensory deficit, diaphragmatic breathing, priapism.
 3. Associated injuries
 4. Careful attention to injury in organs or limbs in areas without sensation

- C. Treatment
 1. ABC's
 2. Immobilize cervical spine with firm cervical collar, appropriate spine/head immobilization device and tape
 3. Bradshaw Device
 4. Immobilize thoracic and lumbosacral spine with spine board (or other firm surface). Move patient as little as possible and always move as a unit.
 5. Oxygen 4-6 L/min if no complicating factors. Attach pulse oximeter if available
 6. IV NaCl KVO or as directed.
 7. Monitor vital signs frequently
 8. Patient movement and transport should be done deliberately and carefully so as not to complicate existing injury.

- D. Precautions
 1. Be prepared to tip the entire board on side if patient vomits. (Patient must be secured to spine board or scoop stretcher--wide tape anchored to both sides of board, not the stretcher preferred.)
 2. Neurogenic shock is likely with significant spinal cord injury. Raising foot of board will usually correct this. However, this technique will also allow the abdominal contents to press on the diaphragm, so respiratory function must be monitored closely.
 3. If patient has sustained high level cord injury, he may be breathing solely by using his diaphragm. Do not put such a patient in a head down position. Instead raise the feet only.
 4. Neurologic deficits make evaluation of other injuries very difficult - think of internal bleeding if shock is severe. Injury above the level of T-8 removes tenderness, rigidity and guarding as clues to abdominal injury.
 5. Respiratory problems are common and need to be managed very cautiously when potential spine injury is present. Use of nasopharyngeal airways and nasotracheal tubes is encouraged. However, nasotracheal tubes should be used with caution, if at all, if fractures of the face are likely.
 6. The patient with spine trauma and normal neurogenic function or only a partial deficit is the patient who will benefit most from your conscientious immobilization efforts.
 7. With interhospital transfers, do not rely on the sending physicians' diagnosis of cervical spine x-rays. Patients with significant trauma should remain immobilized, with a cervical collar in place.

WRITTEN REPORTS

Prior to EMS crew departure, Patient Care Reports shall be left at the receiving facility for ALL trauma patients, with documentation of the call from time of dispatch until time of report at receiving facility.

Written reports should be more lengthy and detailed than the radio report. A typical run report should include all of the following information:

1. Age and sex of patient
2. Mechanism of injury (if trauma)
3. Chief complaint
4. Associated complaints (injuries)
5. Level of consciousness and level of distress
6. Vital signs (BP, P, R, EKG, O2 saturation)
7. Physical findings:
 - a. Breath sounds
 - b. Neurologic status
 - c. Other pertinent physical findings
8. Pertinent medical history and current medications
9. Treatment
 - a. By protocol
 - b. By direct order
10. Response to treatment (e.g. no change, improvement, or decline in patient condition)
Document specific pertinent changes (e.g. changes in level of consciousness, vital signs/color, etc.).
11. Patient condition upon arrival at receiving facility.
12. Amount of fluid infused (if IV started).
13. Person accepting responsibility for patient at receiving facility.
Other pertinent information (e.g. special problems, unusual information about patient, etc.)

Notes:

1. Spell correctly. Misspelled words indicate a lack of professionalism and may be a significant liability if called to testify in court.
2. The report must be legible.
3. Document in detail any activities that may be controversial.

II. Transfers: Coordination of Transportation

The geographic area covered by the Central Mississippi Trauma Region includes the most populous urban area of Mississippi, as well as very sparsely populated rural areas. Transportation resources include BLS and ALS ground ambulances, as well as critical care air ambulance transport.

The goal of the transport component is the timely delivery of trauma patients to designated facilities, utilizing the most expedient and appropriate means of transport. Of primary concern in the transfer process is reducing the time from injury to appropriate definitive care. Elapsed time between injury and receipt of definitive care depends upon:

- public recognition of the event
- access to EMS system (911)
- response time performance of the EMS system
- level of training and performance on-scene
- distance to appropriate definitive care

The failure of any individual element or coordination between elements can result in significant delays, to the detriment of the patient. The trauma system, through its education, medical direction, and performance improvement components can have a substantial impact on assessment, improvement and coordination of all these elements.

Under the *Mississippi Trauma Care System Regulations*, patients may be transferred between and from Trauma Centers, provided, that any such transfer be: (1) medically prudent, as determined by the transferring Trauma Center physician of record, and (2) in accordance with the designated Trauma Region transfer policies. (*MTCSR §X.*)

Once the need for transfer is recognized, the process should not be delayed for laboratory or diagnostic procedures that have no impact on the transfer process or the immediate need for resuscitation. (*ACS COT Ch. 4*)

Guidelines for Transferring Patients:

1. **Transferring Physician Responsibilities**
 - a. Identify the patient needing transfer
 - a. Initiate the transfer process by direct contact with the receiving surgeon
 - b. Initiate resuscitation measures within the capabilities of the facility
 - c. Determine the appropriate mode of transportation on consultation with the receiving surgeon or physician
 - d. Transfer all records, results and X-fays to receiving facility

2. **Treatment Prior to Transfer**

The patient should be resuscitated and attempts made to stabilize his or her condition with respect to ABCDE.

3. **Receiving Physician Responsibilities**
 - a. Ensure resources are available at the receiving facility
 - b. Provide advice/consultation regarding specifics of the transfer or additional evaluation/resuscitation prior to transport
 - c. Once transfer of the patient is established, clarify and identify medical control
 - d. Identify a PI process for transportation, allowing feedback from the receiving physician to the transport team directly or at least to the medical direction of the transport team.

4. **Management During Transport**

During transport, continued management of vital functions and continuous reevaluation are essential:

- a. Qualified personnel and equipment must be available during transport to meet anticipated contingencies
- b. Sufficient supplies must accompany the patient during transport, such as IV fluids, blood, and medications as appropriate
- c. Vital functions should be frequently monitored
- d. Vital functions should be supported; for example, hemodynamics, ventilation, central nervous system, and spinal protection
- e. Records should be kept during transport
- f. Communication must be kept with on-line medical direction during transport

5. **Information to Accompany Patient** (See attached Transfer Form example.)

Information concerning the patient's condition and needs during transport should be communicated to transporting personnel. A written record containing the following information should accompany the patient:

- a. Available patient demographic information
- b. Name of next of kin
- c. Information concerning nature of injury event, time of occurrence, and prehospital care (run report)
- d. Summary of evaluation and care provided at transferring facility, including results of diagnostic tests, X-rays obtained, injuries identified, patient's response to treatment, amount of fluids and blood infused, and chronologic record of vital signs, and urinary output.
- e. Other helpful information, including medical history, current medications, medications/immunizations administered, and allergies
- f. Name, address and phone number of referring physician, in case additional details are needed.
- g. Name of the physician who accepted the patient at the receiving hospital

CRITERIA FOR CONSIDERATION OF TRANSFER

(These guidelines are not intended to be hospital-specific)

CENTRAL NERVOUS SYSTEM

- Head injury
 - penetrating injury or open fracture (with or without cerebrospinal fluid leak)
 - Depressed skull fracture
 - Glasgow Coma Scale (GCS) < 14 or GCS deterioration
 - Lateralizing signs
- Spinal cord injury
 - Spinal cord injury or major vertebral injury

CHEST

- Major chest wall injury or pulmonary contusion
- Wide mediastinum or other signs suggesting great vessel injury
- Cardiac injury
- Patients who may require prolonged ventilation

PELVIS/ABDOMEN

- Unstable pelvic ring disruption
- Pelvic fracture with shock or other evidence of continuing hemorrhage
- Open pelvic injury
- Solid organ injury

MAJOR EXTREMITY INJURIES

- Fracture/dislocation with loss of distal pulses
- Open long-bone fractures
- Extremity ischemia

MULTIPLE-SYSTEM INJURY

- Head injury combined with face, chest, abdominal, or pelvic injury
- Burns with associated injuries
- Multiple long-bone fractures
- Injury to more than two body regions

COMORBID FACTORS

- Age >55 years
- Children <5 years of age
- Cardiac or respiratory disease
- Insulin-dependent diabetes, morbid obesity
- Pregnancy
- Immunosuppression

SECONDARY DETERIORATION (LATE SEQUELAE)

- Mechanical ventilation required
- Sepsis
- Single or multiple organ system failure (deterioration in central nervous, cardiac, pulmonary, hepatic, renal, or coagulation systems)
- Major tissue necrosis

Note: It may be appropriate for the injured patient to undergo operative control of ongoing hemorrhage prior to transfer if a qualified surgeon and operating room resources are promptly available at the referring hospital.

Adapted from ACS Committee on Trauma: Resources for Optimal Care of the Injured Patient, 1999.

TRANSFER FORM

Date ___/___/___ Time _____ am/pm

Patient Name _____

Address _____

Age _____

Birth Date _____

SSN _____

Phone _____

Next of Kin _____

Phone _____

Notified Yes___ No___

Injury Mechanism

MVC GSW Stab Alter Fall Other

Date of Injury ___/___/___

Time of Injury _____ am/pm

Medications _____

Allergies _____

Medications Administered _____

Fluid Administered

Crystalloid (type) _____ (vol) _____

Colloid (type) _____ (vol) _____

Blood (type) _____ (vol) _____

FFP (type) _____ (vol) _____

Other (type) _____ (vol) _____

Initial Vital Signs

BP ___/___ P___ T___ F/C

RTS _____ GCS _____

Prehospital Run Report Attached

Yes___ No___

Injuries Identified _____

Treatment/Procedures _____

Immunizations _____

Referring MD _____

Address

Phone (_____) _____

Accepting MD _____

Time _____ am/pm

Additional Information:

Attach all pertinent flow sheets, vital signs, notes, diagnostic tests/results, consent forms for transfer, etc.

III. Aeromedical Transport

Air medical transportation has become an important method of rapidly transporting injured patients from the scene or the transferring facility to the trauma center. Air medicine has allowed advanced life support and critical care to be delivered at the scene of the incident and en route to the trauma center. A structured air medical safety program must be in place to guide prehospital personnel in establishing a safe landing site, proper loading procedures, communications with pilots and medical personnel, and safe procedures in proximity to an operating helicopter.

Both direct and indirect medical direction must be part of air medical care. The medical flight crew should have a structured air medical educational curriculum and an ongoing performance improvement program. (*ACS COT Manual, Ch. 3, Prehospital Trauma Care*)

a. Policies

The objective of interfacility transport, whether by ground or air, is to reduce, as much as possible, the time between the injury event and surgical intervention. To this end, the use of an EMS helicopter for transport of critical trauma patients may be beneficial. In cases where it is appropriate to transport a patient to a community hospital, the paramedic may request the launch of the UMC helicopter to a community hospital prior to or during transport of the patient to that hospital.

As a specialized transport service providing statewide service, the UMC helicopter is also considered a Regional Resource. The Region will promulgate policies and procedures for transport between transferring and receiving facilities within the Region.

Procedures for requesting, dispatch and response of air transport shall be according to policies established by the aeromedical service.

b. Helicopter Landing Sites

Facilities utilizing helicopter transport services shall establish and maintain safe and appropriate landing zones on or near their hospital campuses. Landing areas may be subject to safety inspections, and facilities should be prepared to make changes as recommended.

For situations where a helicopter is dispatched to a hospital landing area for direct loading of patients from ambulance to helicopter, or should policies permit scene flights or dispatch to pre-arranged landing zones, safety procedures shall be established to ensure the

appropriateness and safety of landing areas, scene safety and security, and other procedures for safe and appropriate patient handling and management.

A training program shall be developed by the aeromedical service to enable the safe landing of aircraft, safe and efficient loading of patients, and safe departure of the aircraft. This program should involve all personnel who could expect to assist in such situations: law enforcement/security, ED personnel, EMS, fire/rescue, etc.

IV. Prehospital Performance Improvement

1. Purpose

The purpose of the pre-hospital record audit is to establish a method of evaluation for the pre-hospital care being delivered, and thus be able to establish benchmarks as goals for improvement. Data from agencies within the Central Trauma Region will be collected, organized and evaluated and the results utilized for continued system improvement. As the Performance Improvement evaluation continues, changes will be implemented in the plan, especially in the area of goals and indicators. Feedback will be provided to EMS agencies, as this is an important aspect of quality improvement. Results of the evaluations will also be made to the State EMS office, as well as the Central Trauma Region Board of Directors.

2. Policy

EMS agencies will be required to provide audits on a quarterly basis. Prior to each quarter, agencies will receive a request from the Performance Improvement Committee listing specific filters (indicators) with which to assess records for the upcoming quarter. This report should be returned to the Regional Office within 30 days. Indicators requested will be not less than four (4), nor more than six (6) for one quarter. Additionally, there may be a random request for a specific filter if there is a need indicated, or if it is requested by the Board of Directors.

3. Procedure

Section 7 below contains a list of indicators from which the Performance Improvement Committee may choose for quarterly reports. Letters will be sent out to each EMS agency in the Region at least 14 days in advance with the specific indicators for the following quarter. The audit should be completed and returned to the administrator within 30 days of the end of the quarter.

4. Corrective Action

In order to reduce variations of care, once problems are identified, the EMS Agency will be asked to submit a plan to correct identified problems. The plan should include desired changes, the name of the person assigned to resolve the problem, and a description of the action to be taken. *Mississippi EMS Rules and Regulations* mandate prehospital providers' compliance with this Trauma Plan, including these Performance Improvement policies and procedures. Noncompliance with this policy will be considered a violation of Mississippi law and EMS Rules and Regulations and will be reported to the Division of EMS, MSDH for administrative enforcement.

5. Re-Evaluation

Three months after the corrective action plan has been submitted, the problem identifier will be re-evaluated. The EMS agency will receive documentation of any findings, as well as any need for continued action.

6. Confidentiality

The Central Trauma Region will abide by the laws of the State of Mississippi regarding confidentiality. Patient names or other identifying criteria will not be used in reports or audits distributed to the Board of Directors or the State EMS Office. It is recognized that auditors from the EMS Office, Mississippi State Department of Health, may be granted access to confidential materials containing patient names or other identifying information during the course of audits or other official Performance Improvement activities or reviews of the Performance Improvement process. Auditors are to be granted access in the course of their official duties, and are also bound by applicable laws regarding patient confidentiality. Any records containing patient names or other identifying information received by Regional officers or employees shall be stored under lock and key until destroyed.

7. *Recommended* EMS Audit Indicators

1. IV lines established where attempted
2. Intubation established where attempted
3. A scene time < 10 minutes (except in prolonged extrication)
4. Vital signs complete
5. Hospital destination appropriate
6. GCS recorded in categories
7. Pediatric Coma Score recorded in categories
8. RTS recorded
9. Emergent calls dispatched within 60 seconds
10. Length of time between Dispatch times and Arrival times for transfers out (hospital to hospital)
11. If patient in EMS care longer than 15 minutes, additional sets of VS documented
12. O2 use documented
13. Timely pre-arrival communication with receiving hospital
14. Documentation that written report left at health care facility with patient
15. Compliance with regional trauma guidelines and protocols
16. Any Bypass or Diversion orders/protocols initiated

Field Triage Decision Scheme is based on the current listing of criteria may be found in Appendix B of the Mississippi Trauma Rules and Regulations located on the Mississippi Department of Health website.

APPENDIX D
EMS MUTUAL AID AGREEMENTS

Mutual Aid Agreement

This agreement is not considered a contract for services, nor does it bind either party to the other for services or goods.

Purpose

This agreement is entered into between _____ Ambulance Service and _____ Ambulance Service for the purpose of providing mutual aid in times of need, and to establish response guidelines for non-emergency calls within general service geographical boundaries.

Both services recognize the geographical boundaries of the other service, and wish to respect such, and work peacefully together, for the better of the public at large.

Both services realize the need to cross geographical boundaries that sometime arise, to provide quality and timely patient care to those in need.

Emergency Call Response Criteria

Both services agree that a request for an ambulance by the public is considered a cry for help and that such calls should be responded to, without regards to geographical boundaries when feasible. Both services agree that if the caller's address is a known address in the other service's geographical area, that they will notify the other service, but will make every effort to respond, unless asked not to respond by the other service. This will ensure that the initial call for help is responded to in a timely manner and is in the best interest of the patient's health.

Both services agree not to engage in any territorial call jumping of emergency calls.

Both services agree to make every attempt to assist the other service during times of disaster, or system overload.

Either ambulance service may respond to emergency calls within the geographical boundaries of the other service's call area at the request of the other service.

Either ambulance service may respond to emergency calls within the geographical boundaries of the other service's call area if and only if a call for emergency assistance is received and the caller's location is within close proximity of the county border and the responding service can reasonably expect to be on scene 5 or more minutes sooner than the in county service. The in-county service should be notified of the response prior to arrival on scene when possible.

Emergency calls are considered any call, whereas the patient may be in a life or death situation or the patient's immediate health is considered unstable.

Emergency calls may be received from any source.

Non-Emergency Call Response Criteria

Both services agree not to make such calls in the others service's geographical territory, without the prior approval of the primary service for the area.

Both services agree to notify the other service and obtain their permission to enter the county prior to accepting non-emergency calls.

A non-emergency call is considered any call where the patient's immediate health is considered stable; to include calls from both the public at large and from healthcare facilities or long-term care facilities.

Either ambulance service may respond to non-emergency calls within the geographical boundaries of the other service's call area at the request of the other service.

If one party transports a patient from its' service area to a facility within the other party's service area, and the patient requires transport back to the original pickup point within 24 hours, the original party is allowed to make both transports.

Quality of Care and Service

Both services agree to provide quality of care to all patients, and not to engage in any form of slander towards the other service.

Both services agree not to engage in any territorial arguments in front of patients, the public at large, healthcare workers, first responders, law enforcement personnel, etc, but to give quality patient care and to discuss any concerns with management after the call.

Both services agree to inform their general staff that any problems, concerns, or disputes should be reported to and handled only by the management or supervisory personnel of both services.

For times of concurrent response, the unit arriving on scene first shall begin patient care and if both services arrive on scene, the service which has jurisdiction for the specific geographical area shall determine who will take control and who will transport the patient. However, in no case will patient care be delayed or withheld while waiting for another ambulance to arrive.

Both parties agree the level of services to be provided pursuant to this agreement shall be clinically equal, or appropriate for the situation at hand, and in compliance with local ordinance.

Both services agree to comply with Mississippi State Department of Health Division of Emergency Medical Services Rules and Regulations at all times.

Both services agree to comply with Central Mississippi Emergency Medical Services District protocols, policies and procedures at all times.

Medical Control Authority

Services responding outside their own geographical boundaries should continue to adhere to their own medical protocols for patient treatment.

Specialized Services Exclusion

Specialized services, such as air ambulance, mobile intensive care units, state and federal government contracts or tribal contracts are excluded from this mutual aid agreement and the other party may respond without regards to geographical boundaries to service such contracts.

Term of Agreement

This agreement is entered into upon the date as signed by both service representatives, and shall continue until such time as one service is no longer a primary provider in a geographical area, or one service serves notice of their desire to terminate the agreement.

This agreement is non-assignable and non-transferable.

For _____ Ambulance Service

_____ Title

_____ Date

For _____ Ambulance Service

_____ Title

_____ Date

MUTUAL AID AGREEMENT

THIS AGREEMENT, entered into by and between _____ Ambulance Service and _____ Ambulance Service.

WHEREAS, pursuant to state laws and local ordinances and contracts, both _____ Ambulance Service and _____ Ambulance Service are licensed ambulance providers in Mississippi; and,

WHEREAS, some of the service areas of the two parties are adjacent to each other; and,

WHEREAS, each party provides ambulance vehicles and related equipment staffed with sufficient personnel to cover reasonably foreseeable demand for ambulance services throughout its respective designated service area; and,

WHEREAS, extraordinary situations may occur that will over-tax the ability of either service to provide prompt and efficient ambulance service to their respective service area; and,

WHEREAS, each party acknowledges that it is authorized to enter into mutual aid agreements; and,

WHEREAS, _____ Ambulance Service and _____ Ambulance Service desire to enter into this Mutual Aid Agreement pursuant to which either party may, at its opinion, request ambulance response by the other party into the requesting party's designated service area subject to the conditions set forth herein,

NOW, THEREFORE, the parties agree to the following:

1. MUTUAL AID – In the event either party to this Agreement receives, through its dispatch facilities, a request for ambulance response to a location within that party's own service area, which in relation to the then-current availability of that party's ambulance is such that, in the opinion of that party, would likely place an extraordinary burden on the system and compromise the system standard of care, that party (i.e., the *requesting party*) may, at its option request back-up ambulance and/or manpower support from the other party (i.e., the *requested party*).
2. USE OF BEST EFFORTS – In the event the requested party determines that the request for mutual aid can safely be accepted without unreasonably jeopardizing coverage of its own service area, the requested party shall notify the requesting party of the location from which its nearest unit would respond if the request for mutual aid is confirmed. The requesting party shall then decide whether to confirm or cancel the request to the call in a timely manner. Provided, however, that any such request may be refused by the requested party when, in the opinion of the requested party, accepting the request would unreasonably jeopardize coverage and response time reliability within the requested party's own service area.

3. FINANCIAL RESPONSIBILITY – In the event that this Agreement accepts responsibility for responding to a request for assistance pursuant to this Agreement, such party agrees to respond promptly. Once a mutual aid request has been accepted, the party accepting the request shall assume full responsibility for billing the patient and/or any appropriate third-party payor directly. The requesting party shall have no financial responsibility for payment or reimbursement unless agreed to by both parties. Any fees collected for such service shall belong only to the party actually providing the service and there shall be no referral fee or other fee due to payable to or by the requesting party. In cases where a mutual aid response may result in the assessment of financial penalties in the requesting party's service area, the requested party shall have no responsibility relative to payment for such penalties.
4. CONCURRENT RESPONSE – This agreement may result in situations where both ambulance services are present simultaneously at the scene of an ambulance call.
5. RESPONSE ON OR NEAR CONGRUENT BOUNDARY – In situations where both services may respond to ambulance calls on or near the service area boundary, the service to arrive first on the scene shall begin treatment and if both services arrive on the scene, the service that has jurisdiction for the specific location shall determine who will take control and who will transport the patient. If a call occurs directly on the boundary, and both services respond and are comparably staffed and equipped to meet the patient's need, the first service to arrive will have jurisdiction. If both services are not comparably staffed and equipped, the service which is better equipped and staffed to manage the patient's immediate needs shall determine who will transport the patient.
6. AUTHORITY FOR CONTROL OF PATIENT MANAGEMENT – Authority for patient management during a joint response shall follow the guidelines established by the Mississippi State Department of Health, Division of EMS: Patient management shall be the responsibility of the individual in attendance who is more appropriately trained and knowledgeable in providing prehospital emergency stabilization and transport.
7. RESPONSE IN OTHER PARTY'S AREA – If either party received a request for emergency ambulance response in the other agency's service area, the call will be promptly referred to the party that has jurisdiction.
 - 7.1 Neither party will make an ambulance call that originates and terminated in the other's service area without prior approval from the party that services the area. It is acceptable, however, for one party to enter another party's service area for non-emergency calls to either pick up or deliver patients as long as origin and destination are not both within the other's service area.
8. RETURN TRANSPORTS – Unless otherwise stipulated, if one party transports a patient from its service area and delivers said patient to the other party's service area and the patient requires transport back to the original party's service area, the party that made the original transport will be expected to make both calls.

9. LIMITATION OF AUTHORIZATION – Only services rendered by one party to this Agreement at the specific request of the other party to this Agreement shall be considered services rendered pursuant to this Mutual Aid Agreement. Such requests shall be considered official only when made by the requesting party. In the event an ambulance operated by either party spontaneously discovers an emergency incident in progress while passing through the other party’s service area, the parties agree that the local provider’s dispatch center shall be immediately notified of the nature and location of the incident, and the ambulance crew at the scene shall then render assistance. The crew at the scene may operate under their own standing orders to address life-threatening conditions in accordance with their level of training. Local protocols and medical direction should guide all other treatment and transportation decisions. Depending upon the nature of the incident and the estimated time of arrival of the nearest ambulance in the service area, the service are dispatch center may request and authorize transport by the unit on the scene (i.e., a “mutual aid request”), or may direct that the transport shall be made by an incoming unit. In the later case, the first unit on the scene shall not depart the scene until the second unit arrives, and shall assist in preparing and loading the patient for transport.
10. CLINICALLY QUALITY ASSURANCE – Both parties agree that the level of services provided pursuant to this Agreement shall be substantially clinically equivalent or appropriate for the situation at hand and in compliance with applicable local ordinances. “Substantial clinically equivalent” shall not necessarily require identical on-board equipment, training requirements, or medical protocols. Medical control authorities for each party authorize personnel form the adjacent service to function at their level in these mutual aid situations. Notwithstanding, any other provisions regarding termination of this Agreement, either party’s Medical Director may, at any time and in his sole discretion, revoke this medical control.
 - 10.1 Each party agrees when functioning as the requested party to cooperate fully and participate in any medical audit requested or conducted by the requesting party, involving mutual aid runs accepted by the requested party.
11. DISPATCH DOCUMENTATION – If resources exist, the parties hereto agree that the dispatch center for the requested party shall accurately document the response times for any mutual aid request accepted.
12. SPECIALIZED SERVICES – Unless otherwise restricted or regulated by local ordinance, specialized services, i.e., Mobile Intensive Care Transport, governmental contracts, air ambulance with accompanying ground transport, etc., shall be excluded from the provisions of *this* Agreement.
13. INDEMNIFICATION – Each party agrees to indemnify and hold harmless the other party and the political subdivisions within the designated service areas, including officers, agents and employees from and against any and all claims or suits for property damage or loss and/or personal injuries, including death, for errors or omissions on the part of either party in any manner arising out of the services rendered pursuant to this Agreement. Such indemnifications for acts occurring or alleged to have occurred during

the effective dates of this Agreement shall survive the terminations of this Agreement for any reason.

- 14. LIABILITY – Each service agrees to provide for itself, appropriate liability, auto, and Worker’s Compensation insurance, in amounts as may be required by law.
- 15. TERM AND EFFECTIVE DATE – This agreement is non-assignable. The effective date of this agreement shall be _____, and shall remain in effect until (i) the loss of either party’s jurisdiction or license, or (ii) failure of any party to fulfill the terms of the Agreement. Either party may terminate this Agreement at any time by giving written notice delivered to the other party. The Agreement shall also be considered valid by successors to any of the parties signing hereto unless otherwise stipulated by the successor.

For _____ Ambulance Service:

Signature

Title

Print Name

Date

For _____ Ambulance Service:

Signature

Title

Print Name

Date

APPENDIX E

**EMS FIRST RESPONDER
RULES AND GUIDELINES**

EMS First Responder Rules and Guidelines

The _____ County Firefighter's Association recognizes the need for prompt medical attention in cases of certain emergency situations. One means of reducing time from request for assistance to initiation of medical care is through the use of trained EMS First Responders. The First Reporter provided basic emergency medical care until such time as more highly trained EMT's or Paramedics arrive on the scene. This early intervention by the First Responder may, in certain cases, make the difference between life and death. However, if such a system is to work efficiently, certain rules must be adhered to by the First Responder.

I hereby agree to abide by all the following rules listed:

1. I agree to respond in a safe manner to the scene, abiding by the rules of the fire department or law enforcement agency on the use of red lights en-route. (First Responders must have insurance on their personal vehicle.)
2. I agree to perform my duties to the best of my abilities and will not perform above my level of training.
3. On the scene, First Responders will work under the direction of the Ambulance Crew. Until the ambulance crew arrives on the scene, the highest level First Responder is in charge of the scene. (The highest level First Responder may be an EMT-Basic, paramedic, or First Responder. Always follow the guidelines of who has been in the EMS field the longest; fire service time does not count toward EMS training and experience.)
4. I agree to re-certify every two years. I will keep a record of my continuing education units (CEU's), recording the number of hours training, explanation of the medical course topic, and will have the instructor sign the record.
5. I agree to keep all medical equipment and supplies in working order and sterile.
6. I must have an active member of a fire department in _____ County to be a First Responder.
7. I will maintain current CPR certification at all times.
8. I will provide the same standard of care as someone with the same training.
9. If the communications capabilities exist, only one First Responder should notify the ambulance service when he or she is responding to a call and provide the ambulance service with an on-scene report. All radio traffic will be kept a minimum, and First Responders will use their fire department unit number as identification on the radio.
10. Only three first responders will be on the scene unless otherwise specified. On house calls, a maximum of three First Responders will be in the house. This is to prevent upsetting the patient and to allow for room to work. Once the ambulance crew arrives on the scene, one or all First Responders may be asked to leave the house.
11. All First Responders are encouraged to take the Hazardous Materials Awareness Level class.

12. First Responders may be asked to handle scene control (bystanders), traffic control, setting up a landing zone (LZ) for air ambulance, or retrieve supplies from the ambulance.
13. All First Responders are required to prominently display their credentials on upon arrival at the scene.

I have read the rules and guidelines and agree to abide by them as an EMS First Responder.

EMS First Responder

Date

I support the _____ EMS First Responder program and verify that the above named person is a firefighter with _____ Fire Department.

Fire Chief

Date

The primary role of the EMS First Responder is to reach the patient quickly and to provide stabilization until more highly trained personnel arrive on the scene.

First Responders may be called out for the following emergencies:

Cardiac code or cardiac arrest	Airway obstruction	Respiratory distress
Unconsciousness patient	MVA's with injuries	Significant overdose
Significant trauma	Gunshot wounds	Mass casualty incidents
Hazmat incidents	Various house calls	Patient lifting & loading

Upon arrival at the scene, the First Responder should provide emergency medical care up to his/her level of training. Contact the ambulance service and advise what the situation is, assist when the ambulance crew arrives on the scene, gather patient information for ambulance personnel. In some cases, First Responders may be asked to ride in the unit to the hospital to assist during transport.

First Responders MUST document any patient encounters and keep a records of each encounter:

- Name of patient
- Address of patient
- Address of patient if not at home
- Type of incident/problem
- Patient's condition
- Care provided to patient until ambulance arrives

Vital signs, every 10-15 minutes and monitoring of patient until ambulance crew arrives
Condition of patient when patient care is transferred to ambulance crew

It is recommended that a small note pad be kept for the information to be written down.
Record keeping is an important part of patient care. Maintain a log of all EMS call s that you
make with the patient information on it.

Remember that patient identity, injuries, and care are confidential. Do not discuss patients
with others unless they are First Responders also. Use caution then.

FIRST RESPONDER INFO (Please print legibly):

Name _____ Fire Department _____

Mailing Address _____

911 Address if different than above _____

Home Phone # _____ Work # if you can leave for a call _____

Medical information: allergies, health conditions, drug allergies, etc. _____

Date of Birth _____ Height _____ Weight _____

Hair Color _____ Eye Color _____