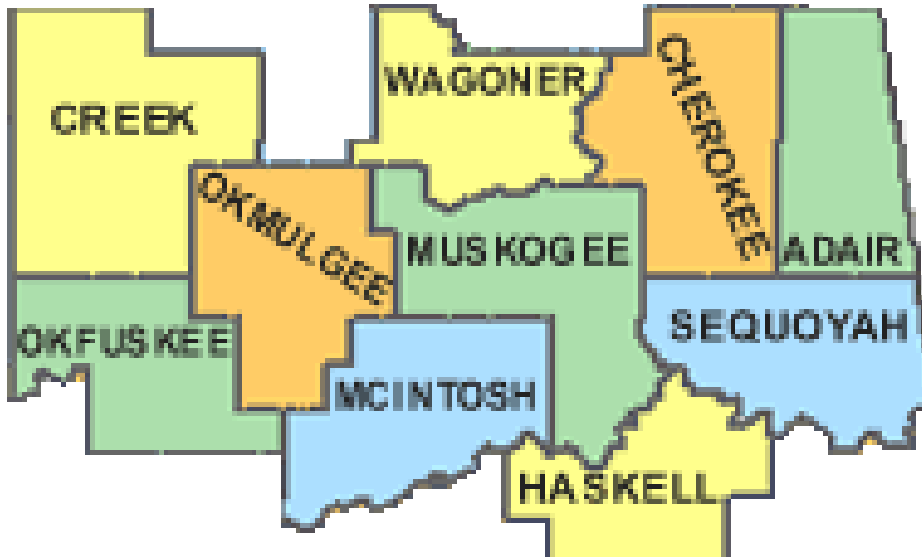


# East Central Regional Trauma Plan

## Region 4



Developed by the EC RTAB Regional Planning Committee

## **Introduction**

Goals and Purpose Region

Description

Trauma Priority Categorization

Trauma Transfer and Referral Center

## **Pre-Hospital Trauma Destination Component**

Procedure for selection of Hospital Destination

Procedure Monitoring Hospital Status and Capability

Helicopter Utilization Protocol

Diversion

## **Inter-facility Trauma Destination Component**

General Principles

Hospital Obligations under EMTALA

EMTALA Definitions

Region Description Categorization of Hospitals

Inter-facility Transfer Guidelines

## **Communication Component**

EMResource™ Usage

## **APPENDICES**

Appendix A: EMS and Hospital Provider Descriptions

Appendix B: Trauma Triage and Transport Guidelines

Appendix C: EMTALA Clarification

Appendix D: Advanced Life Support Intercept Protocol

Appendix E: East Central RTAB Bylaws

## East Central Regional Trauma Triage and Destination Plan

Prehospital RTAB: 07-20-06 OTSIDAC: 08-02-06  
Interfaculty RTAB: 07-19-07 OTSIDAC: 08-01-07  
EMResource™ RTAB: 07-20-06 OTSIDAC: 08-02-06  
Plan modified by OTSIDAC: 02-04-09 (Burn clarification)  
Pan modified by RTAB: 03-19-09 - 10-27-11

# Introduction

## Goals and Purpose

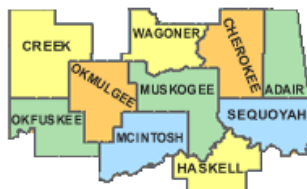
The goals of the regional trauma destination plan are to:

1. Assure trauma patients are transported to the most appropriate hospital facility with the available resources and capacity to provide care in a timely fashion.
2. Support the Pre-Hospital Trauma Triage and Transport Guidelines to effectively reduce trauma morbidity and mortality.
3. Match a facility's resources with each trauma patient's needs to ensure optimal and cost-effective care is achieved.
4. This plan will not conflict with any rules and/or regulations that are in place now maybe written or changed in the future. In the event new rules and/or regulations are considered the RTAB should be included in that dialogue prior to implementation.

## Region Description

Region 4 consists of the northeast and some central portions of Oklahoma and includes the following counties: Adair, Cherokee, Creek, Haskell, McIntosh, Muskogee, Okmulgee, Sequoyah, and Wagoner.

Region 4 encompasses 6,228 square miles with a population of 403,916 residents. It is serviced by 10 ambulance services, three (3) air services, zero (0) Level 2 trauma hospitals, two (2) Level 3 trauma hospitals, and ten (9) Level 4 trauma hospitals of which zero (0) are designated critical access.



## Trauma Priority Categorization

All injured patients must be identified and transported/transferred to the facility that provides the appropriate care based on the clinical needs of the patient. This should be done in a timely fashion with specific attention focused on preserving the highest level of care for major trauma patients. A three-tiered system designed to determine the appropriate hospital destination for all injured patients consider injury severity, severity risk, time, and distance from injury to definitive care, and available resources to meet the region's specific needs. Three trauma triage priorities are used in determining the appropriate destination for patients.

1. Priority 1 Trauma Patients:

These are patient's with blunt or penetrating injury causing physiological abnormalities or significant anatomical injuries. These patients have time sensitive injuries requiring the resources of a Level I or Level II Trauma Center. These patients should be direct transported to a Level I or Level II facility for treatment but may be stabilized at a Level III, Level IV, or Tribal facility, if needed, depending on location of occurrence and time and distance to the higher-level trauma center. If needed these patients may be cared for in a Level III facility if the appropriate services and resources are available.

2. Priority 2 Trauma Patients:

These patients are those that have potentially time sensitive injuries because of a high-energy event or single system injury. These patients do not have physiological abnormalities or significant anatomical injuries and can be transported to a trauma facility with the resources to perform a complete trauma evaluation and medical screening and can care for their injuries.

3. Priority 3 Trauma Patients:

These patients are without physiological instability, altered mentation, neurological deficit, or significant anatomical or single system injury that has been involved in a low energy event.

These patients should be treated at the nearest treating facility or the patient's hospital of choice.

### Categorization of Hospital – See List in Appendix A

## **Trauma Transfer and Referral Center**

The Trauma Transfer and Referral Centers were created by statute (Senate Bill 1554, 2004) and they were implemented on July 1, 2005. The purpose of these centers is to ensure that trauma patients transported or transferred to facilities in Region 7 or 8 are transported to the facility that provides the appropriate level of care based on the clinical needs of the patient. This should be done in a timely fashion with specific attention focused on preserving the highest level of care for major trauma patients.

Statewide training sessions were held throughout June 2005 to orient all providers to the use of these centers.

Ambulances from Region 4 are required to call into the center prior to entering Regions 7 or 8 to ensure appropriate destination. Likewise, hospitals may call these centers for assistance in identifying the appropriate destination for their trauma patients. These centers will provide information on resource utilization to the OSDH that will be available to the Region 4 RTAB for Quality Improvement purposes.

## **Pre-Hospital Trauma Destination Component**

### **Procedure for Selection of Hospital Destination**

It is recognized that some patients have needs that can only be met at specific destination hospitals. Thus, a trauma patient will often benefit from transfer directly to an appropriate hospital with the capabilities and capacity to provide definitive trauma care. This care may not necessarily be at the closest or patient preferred facility and this must be considered when treating the patient.

Rapid pre-hospital recognition and appropriate triage of trauma patients using the Oklahoma Model Trauma Triage and Transport Guidelines is essential in determining the appropriate selection of Priority 1, 2, and 3 trauma patients hospital destination (see appendix B).

These Destinations are:

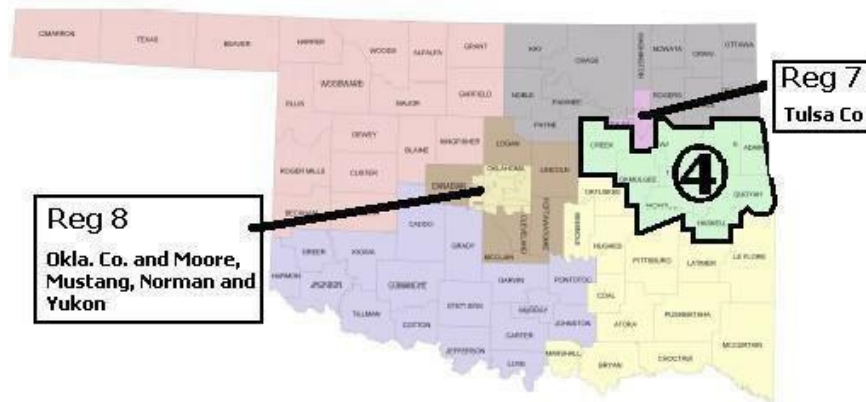
1. All Patients
  - a. All trauma patients should be transported to the most appropriate medical facility with the available resources and capacity to provide trauma care in a timely fashion.
  - b. Those patients with a traumatic arrest or without the inability to secure an

## East Central Regional Trauma Triage and Destination Plan

airway should be transported to the closest facility.

- c. It should be noted that any priority 1 or 2 trauma patient that needs immediate stabilization should be transported to the nearest facility to expedite care of the trauma patient.
- d. Patient preference as well as the time and distance factor to definitive care will be considered for most priority 2 and 3 trauma patients.

### 2. General Trauma Patients



- a. Priority 1 adult and pediatric trauma patients should be transported directly to the appropriate facility in Region 7 & 8 via use of the Trauma Transfer center. For those patients outside of an area 30 minutes from the appropriate facility in Region 7 or 8, air transport should be considered as defined in Section IX, as soon as possible to ensure rapid transport to the appropriate facility.
- b. If air transport is unavailable ground transport and/or ALS intercept can be utilized for transport. In the event there will be an excessive time delay for transport the patient may be taken to the closest treating facility for stabilization.
- c. Priority 2 adult and pediatric trauma patients should be transported to the appropriate facility in Muskogee or Tahlequah or appropriate out-of-area Level 3 or equivalent facility with appropriate capability/capacity to care for the patient, based on the time/distance factor with preference given to patient desire and the ability to keep the patient within Region 4.

## East Central Regional Trauma Triage and Destination Plan

- d. Priority3 adult and pediatric trauma patients should be transported to the nearest treating facility or the facility of choice.
3. Neurological Trauma Patients
    - a. Priority1 adult and pediatric trauma patients should be transported directly to the appropriate facility in Region 7 or 8 via use of the Trauma Transfer center.
    - b. Priority 2 adult trauma patients should be transported to the appropriate facility in Muskogee or Region 7 or 8 based on the time/distance factor with preference given to patient desire and the ability to keep the patient within Region 4.
    - c. Priority2 pediatric trauma patients should be transported to the appropriate facility in Region 7 or 8 using the Trauma Transfer Center.
    - d. Priority3 adult and pediatric trauma patients should be transported to the nearest treating facility or the facility of choice.
  4. Burn Patients
    - a. Adult: Combination of burns > 10% or significant burns involving face, airway, hands, feet, or genitalia *without* significant trauma transport to regional Burn Center. Burns >10% *with* significant trauma transport to trauma center.
    - b. Pediatric: Combination of burns > 10% or significant burns involving face, airway, hands, feet, or genitalia *without* significant trauma transport to Hillcrest Burn Center or OUMC Children's Hospital. Burns >10% *with* significant trauma transport to trauma center.
    - c. Priority1 trauma patients complicated with burns will be transported to the appropriate facility in Region 7 or 8 utilizing the Trauma Transfer Center.

### Procedure for Monitoring Hospitals Status and Capability

1. EMResource™

The MERC coordinator will generate reports from the EMResource™ for use in monitoring hospital status related to destination. These reports will be provided periodically to the OSHD and made available to the Region 2/4/7 CQI Committee. Any problems and/or trends

identified through review of this data will be addressed by the 2/4/7 CQI committee directly with the provider and if necessary, through referral to the appropriate state level committee.

2. CQI Indicators

A set of CQI Indicators has been developed for use in monitoring hospital status and appropriateness of destination. The Region 2/4/7 CQI Committee will monitor these indicators. Any problems and/or trends through review of the indicators will be addressed by the Region 2/4/7 CQI committee directly with the provider and if necessary, through referral to the appropriate state level committee.

## Helicopter Utilization Protocol

Purpose: Appropriate utilization of air ambulance resources by Region 4 providers.

1. "No Fly" Conditions

Helicopter utilization is seldom indicated for patients without a chance for survival or without serious injury. The following are other situations in which air ambulance should not be used:

- a. Patients at a location where time and distance constraints make air transport to the closest appropriate medical facility for the patient's injury more time consuming should be transported by ground. This is generally within 30 minutes of the destination facility.
  1. Priority 3 patients should be transported by ground ambulance.
  2. Cardiac arrest without return of spontaneous circulation in the field.

2. "Fly" Conditions

The following are conditions that warrant the use of an air ambulance:

- a. Priority 1 trauma patients that are being transported to a facility in which time and distance constraints make air transport timelier, generally for instances with a transport time greater than 30 minutes by ground ambulance.
- b. Priority 2 trauma patients that are being transported to a facility with a transport time greater than 30 minutes by ground ambulance, based on local resource availability.
- c. The following are conditions that warrant the use of an air ambulance *even when*



*the patient is within a 30-mile radius of a medical facility:*

1. The closest facility is not appropriate for the patients' injury and the appropriate facility is at a distance in which time and distance constraints justify air transport.
  2. There are hazardous or impassable road conditions resulting in significant delays for ground transportation.
  3. There are multiple patients of a serious nature requiring rapid transport, overwhelming available ground units.
  4. Based on information available, the lead rescuer determines a lengthy rescue is required and transportation by ground would extend and delay definitive care.
- d. The closest available medical helicopter capable of providing needed services will be utilized to improve survival of all patients being transported to a definitive care facility
  - e. If the ETA of the aircraft is more than 10 minutes after the responders have initially treated the patient using standard protocol and the patient is ready for transport, the responders should proceed to the closest pre-existing landing area (PELA site) or to the nearest treating facility if the patients' condition warrants.
3. Early Activation / Standby  
After the responders have initially treated the patient using standard protocol and the patient is ready for transport, the responders should proceed to the closest pre-existing landing area (PELA site) or to the nearest treating facility if the patients' condition warrants it.
    - a. Hospital Activation:  
When a patient presents by EMS or other means to a hospital, and after primary and secondary assessment, he/she is deemed to be a priority one trauma, then the activation of standby by a flight team should be affirmed. They should not be left on standby for more than 30 minutes.  
When hospital determines that a trauma patient is to be transferred by helicopter

## East Central Regional Trauma Triage and Destination Plan

the transferring hospital should notify the helicopter services as soon as possible. All pertinent information should be given to the dispatch center so that appropriate flight crew is included on the flight. All precautions for a safe landing/takeoff will be followed by the hospital to expedite transfer of the patient.

b. EMS Activation:

When dispatch center or ground ambulance service receives call that meets the following criteria, it is recommended that the air ambulance be “early activated” or placed on ground standby:

1. Significant mechanism of injury as defined in the Trauma Triage Algorithm
2. Multiple patients’
3. ” Gut Feeling” from the responding crew

\*\*\*\* NOTE: If a Non-EMS/First Responder or bystander activates an air service, the air service will communicate with local EMS at the time of dispatch to avoid multiple responses to the incident. \*\*\*\*

c. Landing Zone Parameters

1. Free of wires, trees, signs, poles, vehicles, and people
2. Landing zone is flat, smooth, and clear of debris
3. The landing zone should be at least 100 x 100 feet square in size
4. The landing zone should be well defined at night without lights pointed towards the helicopter
5. The area should be secured and free of all loose debris as well as clear of all unauthorized personnel
6. The helicopter should be approached with the crew only and care should be taken to avoid the tail rotor
7. the landing zone should remain clear and secure for at least one minute after departure for safety reasons.

d. Training

Landing zone training should be accomplished by all ambulance services on an annual basis. Each individual ambulance service contacts an air ambulance service for this training.

e. EMTALA

There are concerns regarding air utilization and rendezvous with a local ground transport at a helipad upon a medical facilities property. This is addressed in Appendix C. Region 4 recognizes area and ground ambulances can rendezvous at air hospital properties without triggering EMTALA unless a request is made by EMS.

## **Diversion**

1. Guidelines to determine the possible need for Emergency Department divert are:
  - a. The Emergency Department cannot handle additional emergencies based on the lack of professional personnel.
  - b. Maximum capacity of the Emergency Department has been met.
  - c. The hospital does not have the capability to care for the patient.
2. Notification of Emergency Department diversion status:
  - a. A record shall be maintained documenting the date, time started, and times ended of each interval of divert status.
  - b. Each hospital shall notify each entity providing emergency medical services, such as ambulance services and hospitals in the catchment area of the divert status.
  - c. The EMResource™ will be updated to show current information.
3. Compliance:
  - a. Compliance to the above plan will be monitored through CQI audits.

# **Inter-facility Trauma Destination Component**

## **General Principles**

The vast majority of injured patients receive their total care in the rural hospital, and transfer to a higher level of care is not necessary. Physicians should assess their own capabilities and those of their institution. This assessment allows for early recognitions of patients who may be safely cared for in the local hospital and those who require transfer to an institution that can provide optimal care. 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.

## Hospital Obligations under EMTALA

1. EMTALA – Emergency Medical Treatment and Active Labor Act statute codified at §1867 of the Social Security Act, (the Act) the accompanying regulations in 42 CFR § 489.24 (10/01/2005) and the related requirements at 42 CFR 489.20(1),(m), (q), and (r). EMTALA is also referred to as the “anti-dumping” law.  
EMTALA mandates that any individual who presents to the hospital’s dedicated Emergency Department and requests, or has a request made on his/her behalf, for examination or treatment for a medical condition, or a prudent layperson observer would believe, based on the individual’s appearance or behavior, that the individual needs examination or treatment for a medical condition receive: a medical screening examination by a qualified medical person to determine if an emergency medical condition exists or if the patient is in active labor, stabilizing treatment within the facilities capability and capacity and appropriate transfer if needed.

## EMTALA Definitions

1. **Capability** means the physical space, equipment, staff, supplies, and services (*e.g.*, surgery, trauma care, intensive care, pediatrics, obstetrics, and psychiatry), including ancillary services, that the hospital provides. Capabilities of staff of a facility mean the level of care that the personnel of the hospital can provide within the training and scope of their professional licenses. This includes coverage available through the hospitals on call roster.
2. **Capacity** means the ability of a hospital to accommodate an individual requesting or needing examination or the treatment of a transferred individual. Capacity encompasses the number and availability of qualified staff, beds, and equipment as well as the hospital’s past practices of accommodating additional individuals more than its occupancy limits.
3. **Central Log** means a log maintained by the hospital on each individual who comes to the Dedicated Emergency Department(s) or any location on the Hospital Property seeking emergency assistance and the disposition of each individual.
4. **Comes to the Emergency Department** means an individual who:

East Central Regional Trauma Triage and Destination Plan

- a. Presents at the hospital's dedicated Emergency Department and requests, or has a request made on his/her behalf, for examination or treatment for a medical condition, or a prudent layperson observer would believe, based on the individual's appearance or behavior, that the individual needs examination or treatment for a medical condition.
  - b. Presents on hospital property other than a dedicated Emergency Department, and requests or has a request made on his/her behalf for examination or treatment for what may be an Emergency Medical Condition, or a prudent layperson observer would believe, based on the individual's appearance or behavior, that the individual needs emergency examination or treatment;
  - c. Is in a ground or air ambulance owned and operated by the hospital for the purposes of examination or treatment for a medical condition at the hospital's dedicated emergency Department, unless the ambulance is operated
    1. Under community-wide EMS protocols that direct the ambulance to transport the individual to another facility (e.g., the closest available facility); or
    2. At the direction of a Physician who is not employed or affiliated with the hospital that owns the ambulance; or
    3. Is in a non-hospital owned ground or air ambulance that is on hospital property for presentation for examination or treatment for a medical condition at the hospital's dedicated Emergency Department.
  - d. **Dedicated Emergency Department** means any department of the hospital (whether located on hospital property or off-campus) that meets at least one of the following requirements:
  - e. It is licensed by the State in which the hospital is located under applicable State law as an emergency room or emergency department
5. It is held out to the public (by name, posted signs, advertising or other means)

East Central Regional Trauma Triage and Destination Plan

- as a place that provides care for emergency medical conditions on an urgent bases without requiring a previously scheduled appointment; or
6. During the immediately preceding calendar year, it provided (based on a representative sample) at least one-third (1/3) of all its outpatient visits for the treatment of emergency medical conditions on an urgent basis without requiring a previously scheduled appointment.
  7. **Department of the Hospital** means the hospital facility or department that provides services under the name, ownership, provider number, and financial and administrative control. For purposes of EMTALA, Department of the hospital does not include a skilled nursing facility, home health agency, rural health clinic, free-standing ambulatory surgery center, private physician office, or any other provider or entity that participates in the Medicare program under a separate provider number.
  8. **Emergency Medical Condition** means a medical condition manifesting itself by acute symptoms of sufficient severity (including severe pain, psychiatric disturbances, and/or symptoms of substance abuse) such that the absence of immediate medical attention could reasonably be expected to result in:
    - a. Placing the health of the individual (or, with respect to a pregnant woman, the health of the woman or unborn child) in serious jeopardy.
    - b. Serious impairment to bodily functions; or Serious dysfunction of any bodily organ or part; or
    - c. With respect to a pregnant woman who is having contractions:
      1. When there is inadequate time to affect a safe transfer to another facility before delivery; or
  9. The transfer may pose a threat to the health or safety of the woman or the unborn child.
  10. **Hospital** means a hospital that has entered into Medicare provider agreement, including critical access or rural primary care hospital.
  11. **Hospital Property** means the entire main hospital campus, including areas and structures that are located within 250yards of the main buildings, and any other areas determined on an individual case basis by the CMS regional office,

to be part of the main hospital's campus. Hospital property can include the parking lots, sidewalks, and driveways on the main hospital campus. It does not include private businesses, residences, or public streets.

12. **Inpatient** means an individual who is admitted to the hospital for bed occupancy for purposes of receiving inpatient services with the expectation that he/she will remain at least overnight and occupy a bed, even though the individual may be later discharged or transferred to another facility and does not actually use a hospital bed overnight.
13. **Labor** means the process of childbirth beginning with the latent or early phase of labor and continuing through the delivery of the placenta. A woman is in true labor unless a physician certified that, after a reasonable period of observation, the woman is in false labor.
14. **Medical Screening Examination** means the process required to reach, with reasonable clinical confidence, the point at which it can be determined whether an emergency medical condition exists, or a woman is in labor. The medical screening examination is an ongoing process, including monitoring of the individual, until the individual is either stabilized or transferred.
15. **On-Call List** means the list of physicians who is "on-call" after the initial medical screening examination to provide further evaluation and/or treatment necessary to stabilize an individual with an emergency medical condition.
16. **Outpatient** means an individual who has begun to receive outpatient services as part of an encounter, other than an encounter that triggers the EMTALA obligations. An "encounter" is a direct personal contact between an outpatient and a physician or qualified medical person who is authorized by state law to order or furnish services for the diagnosis or treatment of the outpatient.
17. **Physician** means:
  - a. A Doctor of Medicine or Osteopathy;
  - b. A Doctor of Dental surgery or dental medicine;
  - c. A Doctor of Podiatric medicine; or
  - d. A Doctor of Optometry, each acting within the scope of his/her respective licensure and clinical privileges.

18. **Physician Certification** means the written certification by the treating physician ordering a transfer and setting forth, based on the information available at the time of transfer, that the medical benefits reasonably expected from the provision of appropriate medical treatment at another medical facility outweigh the increased risks to the individual and, in the case of a woman in labor, to the unborn child, from effecting the transfer.
19. **Qualified Medical Person** means an individual other than a licensed Physician;
  - a. Is licensed or certified by the state in which the hospital is located;
  - b. Practices in a category of health professionals that has been designated by the hospital and the Medical Staff Bylaws, or rules and regulations, to perform medical screening examinations;
  - c. Has demonstrated current competence in the performance of medical screening examinations within his/her health profession; and
  - d. As applicable, performs the medical screening examination in accordance with protocols, standardized procedures or other policies as may be required by law or hospital policy. A qualified medical person includes registered nurses, nurse practitioners, nurse midwives, psychiatric social workers, psychologists, and physician assistants. (NOTE: The Oklahoma Nurse Practice Act prohibits registered nurses from conducting a medical screening examination.)
20. **Signage** means the signs posted by the hospital in the dedicated Emergency Department(s) and in a place or places likely to be noticed by all individuals entering the dedicated Emergency Department(s) (including the waiting room, admitting area, entrance, and treatment areas) that inform individuals of their rights under EMT.
21. **Stabilized** means, with respect to an emergency medical condition, that no material deterioration of the condition is likely within reasonable medical probability, to result from or occur during the transfer of the individual from the hospital, or in the case of woman in labor, that the woman delivered the child and the placenta. An individual will be deemed stabilized if the treating physician has determined, within reasonable clinical confidence, that the emergency



medical condition has been resolved.

22. **To Stabilize** means, with respect to an emergency medical condition, to either provide such medical treatment of the condition as may be necessary to assure, within reasonable medical probability, that no material deterioration of the condition is likely to result from or occur during the transfer of the individual from the hospital or, in the case of a woman in labor, that the woman has delivered the child and the placenta.
- a. **Stable for Discharge** means a determination by the treating physician, within reasonable clinical confidence, that the individual has reached the point where his/her continued care, including diagnostic work-up and/or treatment, could reasonably be performed as an outpatient or later as an inpatient, provided the individual is given a plan for appropriate follow-up care with the discharge instructions. For the purpose of discharging an individual with psychiatric condition(s), the individual is considered to be stable for discharge when he/she is no longer considered to be a threat to him/her or to others.
  - b. **Stable for Transfer** means a determination by the treating physician, with reasonable clinical confidence, that an individual is expected to leave the hospital and be received at the second facility, with no material deterioration in his/her medical condition; and the treating physician reasonably believes the receiving facility has the capability to manage the individual's medical condition and any reasonably foreseeable complication of that condition. In the case of an individual who has a psychiatric condition(s), the individual is stable for transfer when he/she is protected and prevented from injuring himself/herself or others.
23. **Transfer** means the movement (including the discharge) of an individual outside the hospital's facilities at the direction of any person employed by (or affiliated or associated, directly or indirectly, with) the hospital,, but does not include such a movement of an individual who has been declared dead or who leaves the facility against medical advice or without being seen.

24. **Triage** is a process determines the order in which individuals will be provided a medical screening examination by a physician or qualified medical person. Triage is not the equivalent of a medical screening examination and does not determine the presence or absence of an emergency medical condition.

## Region Description

Region 4 consists of the following counties: Adair, Cherokee, Creek, Haskell, McIntosh, Muskogee, Okmulgee, Sequoyah, and Wagoner.

Encompassing 6,228 square miles; 380,605 persons reside in the region.

See Appendix A for specific resources.

## Categorization of Hospitals

### 1. Level III Trauma Centers

A Level III trauma center is a licensed acute care facility with the commitment, medical staff, personnel, and specialty training necessary to provide initial resuscitation of the trauma patient. Generally, a Level III trauma center is expected to provide initial resuscitation of the trauma patient and immediate operative intervention to control hemorrhage and to assure maximal stabilization prior to referral to a higher level of care. In many instances, patients will remain in the Level III trauma center unless the medical needs of the patient require secondary transfer.

The decision to transfer a patient rests with the physician attending the trauma patient.

All Level III trauma centers will work collaboratively with other trauma facilities to develop

transfer protocols and a well-defined transfer sequence.

### 2. Level IV Trauma Centers

Level IV trauma centers are generally licensed; small, rural facilities with a commitment to the resuscitation of the trauma patient and written transfer protocols in place to assure those patients who require a higher level of care are appropriately transferred. The major trauma patient will be resuscitated and transferred. At least one of the practitioners on duty shall have

## East Central Regional Trauma Triage and Destination Plan

Received training in advanced life support techniques and be deemed competent to initiate treatment of the emergency patient.

### 3. Trauma Program

There must be a written commitment letter from the Board of Directors and the medical staff on behalf of the entire facility, which states the facility's commitment to compliance with the Oklahoma Trauma Care Regulations. A trauma program must be established and recognized by the organization. Compliance with the above will be evidenced by:

- a. Board of Director's and medical staff letter of commitment
- b. Written policies, procedures, and guidelines for care of the trauma patient
- c. A defined Trauma Team with written roles and responsibilities
- d. A written Trauma Performance Improvement Plan
- e. Appointed Trauma Service Director with a written job description
- f. Appointed Trauma Program Coordinator with a written job description, and
- g. Documentation of the trauma center's representative's attendance at the Regional Trauma Advisory Board meetings.

### 4. Performance Improvement

The key elements in trauma system improvement include evaluation, measurement, and improvement of performance. The goal is to decrease variation in care and improve patient outcomes. Compliance with the above may be evidenced by:

- a. Review of compliance with Regional EMS Triage Guidelines and Protocols
- b. Written Trauma Team Activation Criteria
- c. Compliance with the principles of ATLS.
- d. Peer Review of all trauma deaths to determine timeliness and appropriateness of care and preventability of death
- e. Review of trauma related morbidities for appropriateness of care and preventability
- f. Nursing Audit (Clinical review of nursing documentation and quality of care rendered to trauma patients)
- g. review of timeliness and appropriateness of all transfers out

### 5. Trauma Registry

All trauma centers will participate in the statewide trauma registry. Compliance is required

**East Central Regional Trauma Triage and Destination Plan**  
through hospital licensure, which will be monitored by Trauma Registry and Hospital  
licensure staff.

6. Trauma Service Director – Level III

The medical staff shall designate a surgeon as trauma service director. In the instance, the physician is responsible in working with all members of the trauma team and overseeing the implementation of a trauma specific performance improvement plan for the entire facility.

Through this process, he/she should have overall responsibility for the quality of trauma care rendered at the facility. The director must be given administrative support to implement the requirements specified by the Oklahoma Trauma Plan. The director should assist in the development of standards of care and assure appropriate policies and procedures are in place for the safe resuscitation and transfer of trauma patients. The physician director should have current verifications in ATLS.

7. Trauma Program Coordinator (TPC) – level III

The trauma center should have a designated trauma coordinator such as a Registered Nurse working in the role of the Trauma Program Coordinator. The trauma center must have a person to act as a liaison to the regional evaluation process the administrative functions required by the trauma program. In conjunction with the Medical Director, the TPC is responsible for organization of the program and all necessary systems for the multidisciplinary approach throughout the continuum of trauma care. He/she is responsible for working with the trauma team to assure optimal care and will liaison with local EMS personnel, the RTAB, and other trauma centers.

The TPC will also develop a methodology for which activation of the trauma team is accomplished in their facility. The activation may be either full or partial depending upon the severity of the trauma patients' injuries.

8. Trauma Team

The team approach is optimal in the care of the injured patient. Policies should be in place describing the roles of all personnel on the trauma team and define different levels of trauma team activation. The composition of the trauma team in any hospital will depend on the characteristics of that hospital and its resources. The physician leader or the mid-level practitioner on the trauma team should be ATLS certified or the equivalent and

#### East Central Regional Trauma Triage and Destination Plan

should be responsible for directing all phases of the resuscitation in compliance with ATLS protocol.

Suggested composition of the trauma team for severely injured patients may consist of:

- a. ER Physician
  - b. Surgeon(s) on call for ER
  
  - c. ER Registered Nurses
  - d. Designated ER staff
  - e. House Shift Supervisors
  - f. Respiratory Therapists
  - g. Ancillary Support Staff (Lab, X-Ray, EKG)
9. Trauma Team Activation Criteria Guidelines
- a. Full trauma team activation should include the notification and mobilization of the entire trauma team as defined by the hospital, prior to the arrival of the trauma patient.
  - b. Partial trauma team activation should include the notification and mobilization of ER physician and ER Registered Nurse. Other team members will be notified and mobilized as needed.
  - c. In either a Level III or Level IV facility, immediate activation of the trauma system (FULL ACTIVATION) should occur when you have any of the following:
    1. Glasgow Coma Scale (GCS) <10
    2. Systolic blood pressure < 90 mmHg
    3. Respiratory rate <10 or > 30/min
    4. Penetrating injury to the head, neck, torso, or extremities above the elbows or knees
    5. Flail chest
    6. Two or more proximal long bone fractures
    7. Pelvic fracture
    8. Limb paralysis
    9. Amputation proximal to the wrist or ankle
    10. Body surface burns <5% (second or third degree)

**East Central Regional Trauma Triage and Destination Plan**

11. Burns associated with other traumatic or inhalation injury
12. Trauma transfer patients that is intubated or receiving blood
13. Children under 12 with any of the following criteria:
  - i. Ejection from vehicle
  - ii. Death of same passenger compartment
  - iii. Extrication time greater than 20 minutes
  - iv. Rollover MVC
  
  - v. High-speed auto crash than 40 MPH
  - vi. Auto deformity greater than 20 inches of external damage or intrusion into passenger compartment greater than 12 inches
  - vii. Pedestrian thrown or run over
  - viii. Motorcycle crash greater than 20mph or separation of rider from the bike

In a Level III or Level IV facility, PARTIAL ACTIVATION of the trauma team should occur when a patient presents to the ER with a Priority II or Priority III injury. After evaluation by the appropriate personnel the patient should be treated appropriately for the injury and if necessary full activation of the team may occur.

10. Level III Trauma Center

The facility must have an emergency department staffed so those trauma patients are assured immediate and appropriate initial care. The emergency physician must be in-house 24 hours/day, immediate available always, and capable of evaluating trauma patients and provide initial resuscitation. The emergency medicine physician will provide team leadership and care for the trauma patient until the arrival of the surgeon in the resuscitation area. The emergency department must have established standards and procedures to ensure immediate and appropriate care for the adult and pediatric trauma patient. The medical director for the department, or his designee, must participate with the Multidisciplinary Trauma Committee and the trauma PI process. There should be an adequate number of RN's staffed for the trauma resuscitation area in-house 24 hours/day. There should be a written plan ensuring nurses maintain ongoing trauma

**East Central Regional Trauma Triage and Destination Plan**  
specific education (ACLS, PALS, TNCC, ENPC).

- a. Level III trauma centers must have published on-call schedules and have the following medical specialties immediately available 24 hours/day to the injured patient:
    1. General surgery
    2. Orthopedics
    3. Anesthesia
    4. Emergency Services
    5. Other medical specialists that may be available in the local area to assist with care of the trauma patient.
  
  - b. A surgical team must be on-call with a well-defined mechanism for notification to expedite transfer to the operating room if the patient's condition warrants.
  
  - c. Clinical support services such as Respiratory Therapy and Radiology technicians shall be available 24 hours/day to meet the immediate needs of the trauma patient.
  
  - d. Written policies should exist delineating the prioritization/ availability of the CT scanner for trauma patients. The use of tele-radiology is an acceptable practice in the Level III facility.
  
  - e. Clinical laboratory services shall have the following services available in-house 24 hours/day:
    1. Blood typing and cross matching capabilities
    2. Access to sufficient quantities of blood and blood products
    3. Microbiology
    4. Blood gas and pH determination
    5. Alcohol and drug screening
    6. Coagulation studies.
11. Transfer Protocols – Level III
- The Level III trauma center will have transfer agreements in place with other appropriate trauma centers, as well as all specialty referral centers (such as burn, pediatrics, spinal cord injury and rehabilitation). Additionally, transfer protocols may

**East Central Regional Trauma Triage and Destination Plan**

be written with all referral facilities in the immediate service area. All facilities will work together to develop transfer guidelines indicating which patients should be considered for transfer, and procedures to assure the most expedient, safe transfer of the patient. The transfer agreements must include a feedback loop, so the primary provider has a good understanding of patient outcome and assures this information becomes part of the trauma registry. All designated facilities will agree to provide services to the trauma patient regardless of their ability to pay. Every effort should be made to repatriate the trauma patient to his/her local community hospital or provider hospital as appropriate.

12. Emergency Department (Level IV)

The facility must have an emergency department staffed so trauma patients are assured immediate and appropriate initial care. The on-call practitioner must respond to the emergency department based on local written criteria. A system must be developed to assure early notification of the on-call practitioner. Compliance with this criterion must be documented and monitored by the Trauma Performance Improvement process. Adequate numbers of nurses must be available in-house 24 hours/day, to meet the need of the

trauma patient. The nurse may perform other patient care activities within the hospital when not needed in the emergency department. It is anticipated that a Level IV trauma center may have limited availability of the following services:

- a. Respiratory Therapy Services
- b. Radiology Services
- c. Clinical Laboratory Services
  - 1. If any of these services are available, the facility should make them available to the trauma patient as necessary and within the capabilities of the facility.

13. Transfer Protocols – Level IV

The Level IV trauma center should have written transfer agreements with appropriate within their service area. A policy must be in place to facilitate and expedite the transfer sequence to assure the most appropriate care is rendered to



the patient.

## Inter-facility Transfer Guidelines

In an effort to optimize patient care and deliver the trauma patient to the most appropriate destination, rapid assessment of the patient is imperative. When a trauma patient arrives at a destination hospital, the trauma team will be activated (either full or partial) and the patient will

undergo immediate medical screening. Depending upon the results and the needs of the patient, any of the following may occur:

1. The patient will be stabilized and then transferred to the most appropriate facility. (Priority I trauma or Priority II trauma that is time-sensitive) A complete set of c-rays or CT are not necessary for the patient to be deemed Level I or Level II trauma. These tests should be limited to decrease time at transferring facility. The purpose of the transferring facility is to stabilize the patient for transport via the quickest means of transport available,
  - a. The patient will be stabilized and then admitted to that facility (Level II is not time-sensitive or Level III),
  - b. The patient will be stabilized and transferred to the facility of his or her choice, as appropriate. (Priority II or III that is not time-sensitive),
  - c. The patient will be treated and discharged to home with appropriate instruction for their injuries (Level III trauma).

It is recommended that the transfer of Priority II and III trauma patients follow the same routing as the Pre-Hospital Destination Plan. This is an effort to provide optimal care in the most appropriate amount of time for the trauma patient. As always, the patient's choice of facility will be considered when the injuries are not of a time-sensitive matter.

## COMMUNICATION COMPONENT

### EMResource™ Usage

## East Central Regional Trauma Triage and Destination Plan

### 1. Introduction

For several years EMResource™ has served as a tool for hospitals to display their diversion status in Oklahoma City. Although diversion is still a feature on the EMResource™, we are going to ask that you look at EMResource™ as a communication tool capable of demonstrating resource availability, health alerts and disaster notifications. EMResource™ is now a vital tool that can better enable communication in both routine daily circumstances and during disasters.

EMResource™ ability to serve this function is limited using the system by providers.

### 2. Usage Requirements

Within Region 4 all providers are required of to comply with the guidelines established by the State *EMResource™ Joint Advisory Committee* and /or the Oklahoma State Department of Health in the *EMResource™ Manual*. In the event that the *EMResource™ Manual* is updated, the revisions to the *EMResource™ Manual* override the requirements in this document.

Specific usage requirements include but are not limited to:

#### a. Contact Information

1. Each provider is responsible to maintain accurate contact information on the EMResource™.
2. Hospitals shall post the telephone number they wish other providers to use when calling patient referrals or reports in EMResource™.

#### b. Provider Status

Each hospital is required to maintain current status on the EMResource™ so that their capabilities or capacity can be readily accessed by other hospitals, EMS agencies and the Trauma Transfer and Referral Center.

Critical Concept: Emergency Departments and Hospitals are considered open unless posted otherwise on EMResource™

### 1. Emergency Department Status

- a. This is the specific status of the Emergency Department and is the only status appropriate for diversion of pre-hospital transports. The current ED Status categories are: Open, Total ED Divert, Trauma Divert, CT Divert, ED select, Forced Open, and Closed.

**East Central Regional Trauma Triage and Destination Plan**

- b. If a facility has not updated their status on the EMResource™ their attempt to divert may be overridden by the pre-hospital provider or the Trauma Transfer and Referral Center.

2. Hospital Status

- a. This status is specific to the inpatient capability/capacity and is only appropriate for diverting inter-facility transfer patients. The current Hospital Status categories are: Open, Caution, and Closed.
- b. If a facility has not updated their status on the EMResource™ their attempt to divert may be overridden by the Trauma Transfer and Referral Center.

Critical Concept: Emergency Departments and Hospitals are considered open unless posted otherwise on EMResource™.

3. Provider Resource Availability

This status is for displaying specialty coverage on a real time basis. A customized list of eight specialties has been developed to meet the needs of Oklahoma. The status categories for these coverage areas are:

- a. Yes – coverage is currently available
- b. No – coverage is not currently available
- c. N/A - this service is not offered at this facility

4. Air Ambulance Status

This status is for displaying the current status/availability of Air Ambulances. The status categories for this status are:

- a. Available – the aeromedical resource is currently ready and able to respond to emergency calls.
- b. Call for Status – current conditions necessitate those providers in need of aeromedical transport call to determine resource availability because:
  - 1. The aeromedical resource may already be dispatched to a call or be on standby.
  - 2. Local weather conditions may temporarily impact the ability of this aeromedical resource to respond.
  - 3. This aeromedical resource may be temporarily unavailable due to

**East Central Regional Trauma Triage and Destination Plan**  
routine service or fueling.

- i. Not Available – the aeromedical resource is currently unable to respond in a timely manner.
- ii. In Region 5 the air ambulances are required to keep their most accurate status current. They may not leave their status as “call for status” at all times.

5. System Alerts

- a. Providers in Region 4 are required to maintain EMResource™ in a manner that enables them to receive alerts in a timely manner. It is suggested that all providers maintain a computer with EMResource™ displayed 24 hours a day.
- b. If a provider is unable to maintain a computer with EMResource™ displayed 24 hours a day the provider is expected to work with the regional EMResource™ administrator to arrange the delivery of all System Alerts to the text enabled device of designated staff responsible to share the alert information with other on-duty staff.

6. Data Reporting

Providers in Region 4 are required to participate in reporting data supported by the EMResource™ application. This reporting requirement includes but is not limited to:

- a. Hospital Day Report of bed capacity and ED volume.
- b. EMS Daily Report of resources and volume.

7. Monitoring

Appropriate use of EMResource™ will be enforced in the region through the CQI process

- a. The CQI committee will routinely review reports from the Trauma Transfer and Referral Center on diversion of patients and compare the patient diversion list
- b. with the list of facility diversion hours generated from the EMResource™.
- c. The CQI committee will review all cases referred to them for inappropriate use of EMResource™ in any of the listed categories.
- d. The regional and/or state EMResource™ administrator will perform periodic drills using EMResource™ and monitor appropriateness of provider response. Reports of these drills will be provided to the RTAB/CQI committee who will address

**East Central Regional Trauma Triage and Destination Plan**

Problems/trends directly with the provider and if necessary, through referral to the appropriate state level committee.

The CQI committee will work with these providers to come into compliance with EMResource™ usage requirements. If these attempts fail the cases will be referred to the State CQI committee for further action.

8. Summary

EMResource™ is a vital communication tool that provides the capability of real time communication among trauma system participants. This ability is limited by provider use of the system. Region 4 supports use of this tool through adoption of these requirements.

## **Appendix A**

### **EMS and Hospital Provider Descriptions**

Prehospital RTAB: 07-20-06 OTSIDAC: 08-02-06  
Interfaculty RTAB: 07-19-07 OTSIDAC: 08-01-07  
EMResource RTAB: 07-20-06 OTSIDAC: 08-02-06  
Plan modified by OTSIDAC: 02-04-09 (Burn clarification)  
Plan modified by RTAB: 03-19-09 - 10-27-11

## Categorization and description of hospital Serving Region 4

### DESCRIPTION OF HOSPITAL PROVIDERS

1. Hospital Providers in Region 4 include:
  - a. Level I:
    1. None
  - b. Level II:
    1. None
  - c. Level III:
    1. Northeastern Health System Tahlequah
    2. Saint Francis Hospital Muskogee
  - d. Level IV:
    1. Ascension St. John Sapulpa
    2. Bristow Medical Center
    3. Drumright Regional Hospital
    4. Haskell County Hospital
    5. Hillcrest Hospital Henryetta
    6. Memorial Hospital
    7. Muscogee (Creek) Nation Medical Center
    8. Northeastern Health System Sequoyah
    9. Wagoner Community Hospital
2. Tribal Facility: Cherokee Nation W.W. Hastings Hospital
3. Out of Region Resources include:
  - a. Priority 1
    1. OU Medical Center, OKC, OK
    2. Saint Francis Hospital, Tulsa, OK

## East Central Regional Trauma Triage and Destination Plan

3. St. John Medical Center, Tulsa, OK
- b. Priority 2
  1. Stillwater Medical Center, Stillwater, OK
  2. Hillcrest Hospital Claremore, Claremore, OK
  3. McAlester Regional Medical Center, McAlester, OK
  4. St Anthony Shawnee Hospital, Shawnee, OK
  5. Region 7 (Tulsa) hospital
  6. Washington Regional, Fayetteville, AR
  7. Sparks, Ft. Smith, AR
  8. St. Edwards, Ft. Smith, AR

### Description of Region 4 EMS provider service by County

EMS Providers within Region 4 include:

1. Adair County
  - a. Pafford EMS of Stilwell is a basic Service with 3 ambulances.
2. Cherokee County
  - a. Cherokee Nation EMS is a Paramedic Service with 7 ambulances.
  - b. First Flight – Tahlequah is a Paramedic Service.
  - c. Northeastern Health System (EMS) is a Paramedic Service with 4 ambulances.
3. Creek County
  - a. Creek County Emergency Ambulance is an Intermediate Service with 13 ambulances.
  - b. Mannford Volunteer Ambulance is a Basic Service with 3 ambulances.
4. Haskell County
5. McIntosh County
  - a. Checotah EMS is a basic Service with 3 ambulances.
6. Muskogee County
  - a. Muskogee County EMS is a Basic Service with 21 ambulances.
  - b. Air Evac Lifeteam Muskogee is a Paramedic Service.
7. Okmulgee County
  - a. Okmulgee EMS County EMS is a Basic Service with 6 ambulances.
  - b. Air Evac Lifeteam Henryretta is a Paramedic Service.



## East Central Regional Trauma Triage and Destination Plan

8. Sequoyah County
9. Wagoner County
  - a. Wagoner EMS is an Intermediate Service with 5 ambulances.
  - b. Coweta Fire Department is a Basic Service with 3 ambulances.

## **Appendix B**

# **Trauma Triage and Transport Guidelines**

# TRAUMA PATIENT TRIAGE DEFINITIONS

## Trauma Triage

Since patients differ in their initial response to injury, trauma triage is an inexact science. Current patient identification criteria do not provide 100% percent sensitivity and specificity for detecting injury. As a result, trauma systems are designed to over-triage patients in order to not miss a potentially serious injury. Under-triage of patients should be avoided since a potentially seriously injured patient could be delivered to a facility not prepared to manage their injury. Large amounts of over-triage is not in the best interest of the Trauma System since it will potentially overwhelm the resources of the facilities essential for the management of severely injured patients.

## Priority 1 Trauma Patients

These are patients with high energy blunt or penetrating injury causing physiological abnormalities or significant single or multisystem anatomical injuries. These patients have time sensitive injuries requiring the resources of a designated Level I, Level II, or Regional Level III Trauma Center. These patients should be directly transported to a designated Level I, Level II, or Regional Level III facility for treatment but may be stabilized at a Level III or Level IV facility, if needed, depending on location of occurrence and time and distance to the higher level trauma center. If needed these patients may be cared for in a Level III facility if the appropriate services and resources are available.

## Physiological Compromise Criteria:

Hemodynamic Compromise – Systolic BP <90 mmHg

Other signs that should be considered include:

Sustained tachycardia

Cool diaphoretic skin

Respiratory Compromise – RR <10 or >29 breaths per minute  
or <20 in infant <1 year of age

Altered Mentation of trauma etiology – GCS <14

## Anatomical Injury Criteria

Penetrating injury of the head, neck, chest/abdomen, or extremities proximal to elbow of knee

Amputation above wrist or ankle

Paralysis or suspected spinal fracture with neurological deficit

Flail chest

Two or more obvious proximal long bone fractures (upper arm or thigh)

Open or suspected depressed skull fracture

Unstable pelvis or suspected pelvic fracture

Tender and/or distended abdomen

Burns associated with Priority 1 Trauma

Crushed, degloved, or mangled extremity

## Priority 2 Trauma Patients

These are patients with potentially time sensitive injuries due to a high energy event (positive mechanism of injury) or with a less severe single system injury but currently with no physiological abnormalities or significant anatomical injury.

### I. Significant Single System Injuries

Neurology: Isolated head trauma with transient loss of consciousness or altered mental status but currently alert and oriented

Orthopedic: Single proximal and distal extremity fractures (including open) from high energy event, isolated joint dislocations – knee, hip, elbow, shoulder without neurovascular deficits, and unstable joint (ligament) injuries without neurovascular deficits.

Maxillofacial trauma: Facial lacerations; such as those requiring surgical repair, isolated open facial fractures or isolated orbit trauma with or without entrapments, or avulsed teeth.

## High Energy Event

Patient involved in rapid acceleration deceleration events absorb large amounts of energy and are at an increased risk for severe injury despite normal vital signs on their initial assessment. Five to fifteen percent of these patients, despite normal vital signs and no apparent anatomical injury on initial evaluation will have a significant injury discovered after a full trauma evaluation with serial observations. Determinates to be considered are direction and velocity of impact and the use of personal protection devices. Motor vehicle crashes when occupants are using personal safety restraint devices may not be considered a high-energy event. Personal safety devices will often protect the occupant from absorbing high amounts of energy even when the vehicle significant damage. High Energy Events:

Ejection of the patient from an enclosed vehicle

Auto/pedestrian or auto/bike or motorcycle crash with significant impact (>20 MPH) impact with the patient thrown or run over by a vehicle

Falls greater than 20 feet for adult, >10 feet for pediatric or distance 2-3 times height of patient

Significant assault or altercations

High risk auto crash

- The following motor vehicle crashes particularly when the patient has not used personal safety restraint devices:

Death in the same passenger compartment

Rollover

High speed auto crash

Compartment intrusion greater than 12 inches at occupant site or >18 inches at any site

Vehicle telemetry data consistent with high risk injury

### Medic Discretion

Since trauma triage is an inexact science and patients differ in their response to injury, clinical judgment by the medic at the scene is an extremely important element in determining the destination of all patients. If the medic is concerned that a patient may have a severe injury which is not yet obvious, the patient may be upgraded in order to deliver that patient to the appropriate level Trauma Center.

Paramedic suspicion for a severe injury may be raised but not limited to the following factors:

- Age greater than 55

- Age less than 5

- Extremes in environment

- Patient's previous medical history such as:

  - Anticoagulation or bleeding disorders

  - End stage renal disease or dialysis

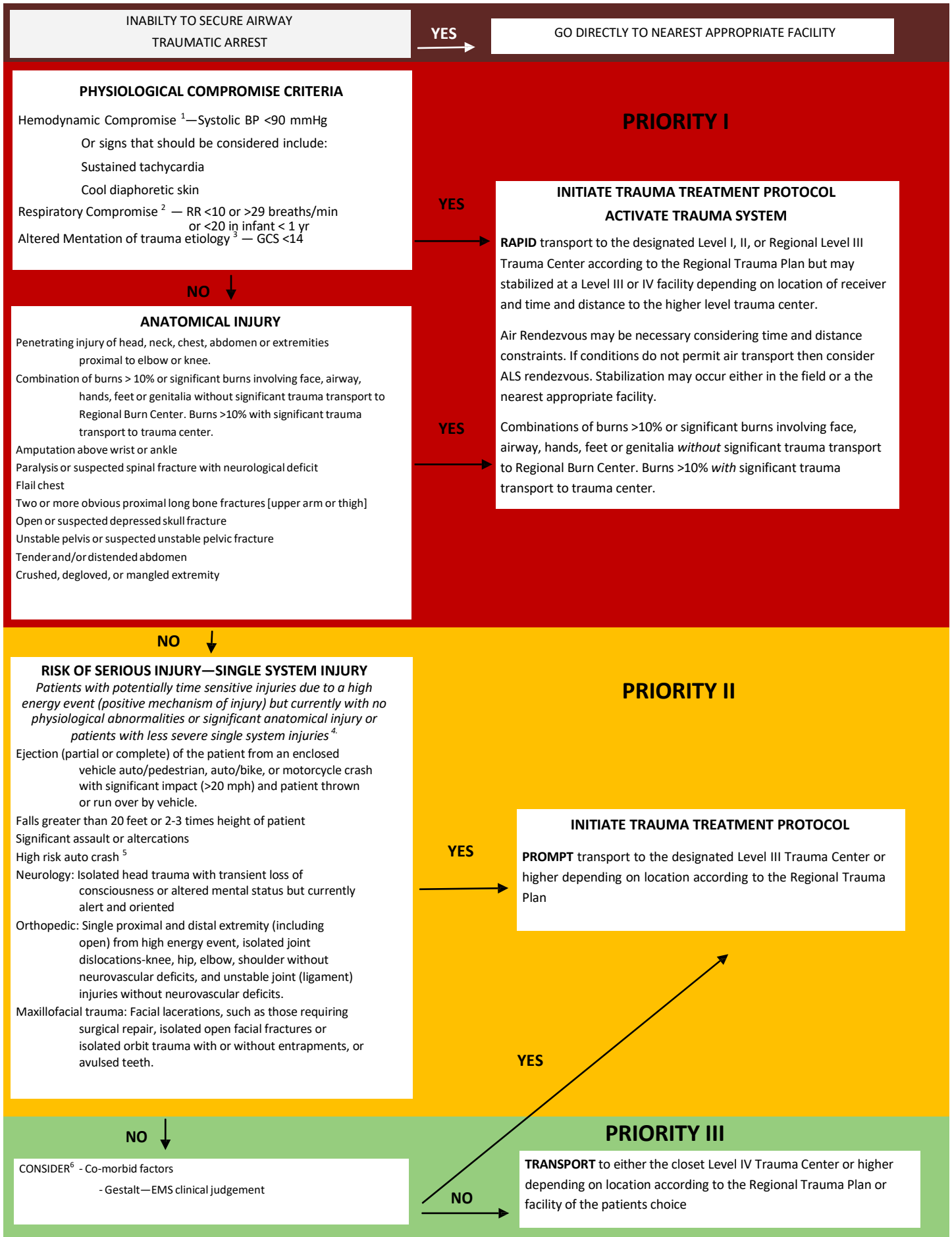
- Pregnancy (>20 weeks)

### Priority 3 Trauma Patients

These patients are without physiological abnormalities, altered mentation, neurological deficit, or a significant single system injury that has been involved in a low energy event. These patients should be treated at the nearest treating facility or the patient's hospital of choice.

Example: Same levels fall with extremity or hip fracture.

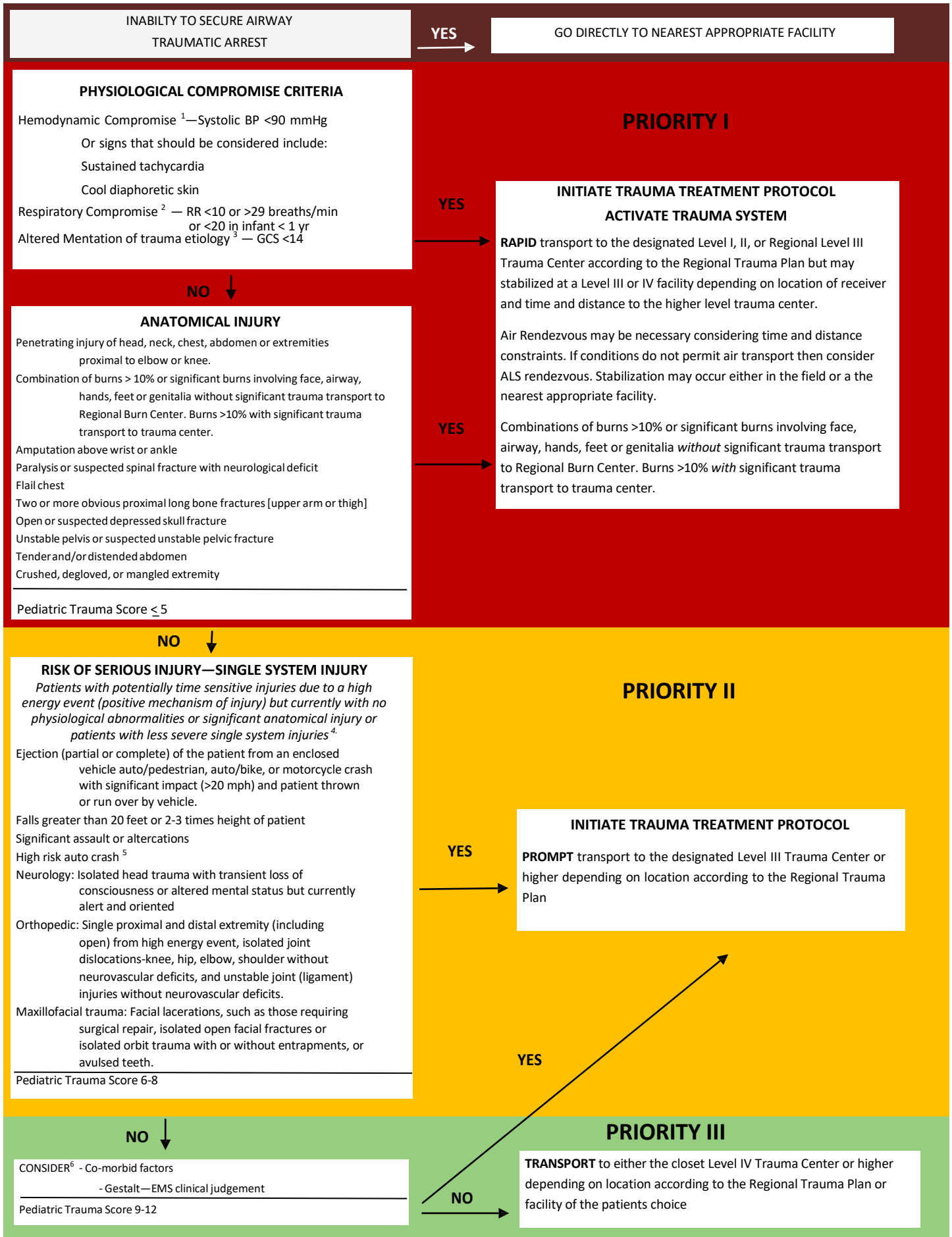
**ADULT PRE-HOSPITAL  
TRIAGE AND TRANSPORT GUIDELINES**  
Oklahoma Model Trauma Triage Algorithm



ADULT PRE-HOSPITAL  
TRIAGE AND TRANSPORT GUIDELINES  
Oklahoma Model Trauma Triage Algorithm

1. In addition to hypotension: pallor, tachycardia, or diaphoresis may be early signs of hypovolemia
2. Tachypnea (hyperventilation) alone will not necessarily initiate this level of response
3. Altered sensorium secondary to sedative-hypnotic will not necessarily initiate this level of response
4. High Energy Event signifies a large release of uncontrolled energy. Patient is assumed injured until proven otherwise and multisystem injuries may exist. Determinants to be considered by medical professionals are direction and velocity of impact, use of personal restraint devices, patient kinematics and physical size, and the residual signature of energy release (e.g. major vehicle damage). Motor vehicle crashes when occupants are using personal safety restraint devices may not be considered a high energy event because the personal safety restraint will often protect the occupant from absorbing high amounts of energy.
5. The following motor vehicle crashes particularly when the patient has not used personal safety restraint devices:
  - a. Death in the same passenger compartment
  - b. Rollover
  - c. High speed auto crash
  - d. Compartment intrusion greater than 12 inches at occupant site or >18 inches at any site
  - e. Vehicle telemetry data consistent with high risk of injury
6. Since trauma triage is an inexact science and patients differ in their response to injury, clinical judgment by the medic at the scene is an extremely important element in determining the destination of all patients. If the medic is concerned that a patient may have a severe injury which is not yet obvious, the patient may be upgraded in order to deliver that patient to the appropriate level Trauma Center. EMS provider suspicion for a severe injury may be raised by, but not limited to, the following factors:
  - Age greater than 55
  - Age less than 5
  - Extremes of environment
  - Patient's previous medical history such as:
    - Anticoagulation or bleeding disorders
    - End state renal disease on dialysis
  - Pregnancy (>20 weeks)

PEDIATRIC (<16 YEARS) PRE-HOSPITAL  
 TRIAGE AND TRANSPORT GUIDELINES  
 Oklahoma Model Trauma Triage Algorithm



**INABILITY TO SECURE AIRWAY  
TRAUMATIC ARREST**

**YES** →

**GO DIRECTLY TO NEAREST APPROPRIATE FACILITY**

**PHYSIOLOGICAL COMPROMISE CRITERIA**

Hemodynamic Compromise <sup>1</sup>—Systolic BP <90 mmHg  
 Or signs that should be considered include:  
 Sustained tachycardia  
 Cool diaphoretic skin

Respiratory Compromise <sup>2</sup> — RR <10 or >29 breaths/min  
 or <20 in infant < 1 yr

Altered Mentation of trauma etiology <sup>3</sup> — GCS <14

**YES** →

**PRIORITY I**

**INITIATE TRAUMA TREATMENT PROTOCOL  
ACTIVATE TRAUMA SYSTEM**

**RAPID** transport to the designated Level I, II, or Regional Level III Trauma Center according to the Regional Trauma Plan but may be stabilized at a Level III or IV facility depending on location of receiver and time and distance to the higher level trauma center.

Air Rendezvous may be necessary considering time and distance constraints. If conditions do not permit air transport then consider ALS rendezvous. Stabilization may occur either in the field or at the nearest appropriate facility.

Combinations of burns >10% or significant burns involving face, airway, hands, feet or genitalia *without* significant trauma transport to Regional Burn Center. Burns >10% *with* significant trauma transport to trauma center.

**NO** ↓

**ANATOMICAL INJURY**

Penetrating injury of head, neck, chest, abdomen or extremities proximal to elbow or knee.

Combination of burns > 10% or significant burns involving face, airway, hands, feet or genitalia without significant trauma transport to Regional Burn Center. Burns >10% with significant trauma transport to trauma center.

Amputation above wrist or ankle  
 Paralysis or suspected spinal fracture with neurological deficit  
 Flail chest  
 Two or more obvious proximal long bone fractures [upper arm or thigh]  
 Open or suspected depressed skull fracture  
 Unstable pelvis or suspected unstable pelvic fracture  
 Tender and/or distended abdomen  
 Crushed, degloved, or mangled extremity

---

Pediatric Trauma Score ≤ 5

**YES** →

**NO** ↓

**RISK OF SERIOUS INJURY—SINGLE SYSTEM INJURY**  
*Patients with potentially time sensitive injuries due to a high energy event (positive mechanism of injury) but currently with no physiological abnormalities or significant anatomical injury or patients with less severe single system injuries<sup>4</sup>.*

Ejection (partial or complete) of the patient from an enclosed vehicle auto/pedestrian, auto/bike, or motorcycle crash with significant impact (>20 mph) and patient thrown or run over by vehicle.

Falls greater than 20 feet or 2-3 times height of patient  
 Significant assault or altercations  
 High risk auto crash <sup>5</sup>

Neurology: Isolated head trauma with transient loss of consciousness or altered mental status but currently alert and oriented

Orthopedic: Single proximal and distal extremity (including open) from high energy event, isolated joint dislocations-knee, hip, elbow, shoulder without neurovascular deficits, and unstable joint (ligament) injuries without neurovascular deficits.

Maxillofacial trauma: Facial lacerations, such as those requiring surgical repair, isolated open facial fractures or isolated orbit trauma with or without entrapments, or avulsed teeth.

---

Pediatric Trauma Score 6-8

**YES** →

**PRIORITY II**

**INITIATE TRAUMA TREATMENT PROTOCOL**

**PROMPT** transport to the designated Level III Trauma Center or higher depending on location according to the Regional Trauma Plan

**YES** →

**NO** ↓

**CONSIDER<sup>6</sup> - Co-morbid factors**  
 - Gestalt—EMS clinical judgement

---

Pediatric Trauma Score 9-12

**NO** →

**PRIORITY III**

**TRANSPORT** to either the closet Level IV Trauma Center or higher depending on location according to the Regional Trauma Plan or facility of the patients choice



PEDIATRIC (16 YEARS) PRE-HOSPITAL  
TRIAGE AND TRANSPORT GUIDELINES  
Oklahoma Model Trauma Triage Algorithm

1. In addition to hypotension: pallor, tachycardia, or diaphoresis may be early signs of hypovolemia
2. Tachypnea (hyperventilation) alone will not necessarily initiate this level of response
3. Altered sensorium secondary to sedative-hypnotic will not necessarily initiate this level of response
4. High Energy Event signifies a large release of uncontrolled energy. Patient is assumed injured until proven otherwise and multisystem injuries may exist. Determinants to be considered by medical professionals are direction and velocity of impact, use of personal restraint devices, patient kinematics and physical size, and the residual signature of energy release (e.g. major vehicle damage). Motor vehicle crashes when occupants are using personal safety restraint devices may not be considered a high energy event because the personal safety restraint will often protect the occupant from absorbing high amounts of energy.
5. The following motor vehicle crashes particularly when the patient has not used personal safety restraint devices:
  - a. Death in the same passenger compartment
  - b. Rollover
  - c. High speed auto crash
  - d. Compartment intrusion greater than 12 inches at occupant site or >18 inches at any site
  - e. Vehicle telemetry data consistent with high risk of injury
6. Since trauma triage is an inexact science and patients differ in their response to injury, clinical judgment by the medic at the scene is an extremely important element in determining the destination of all patients. If the medic is concerned that a patient may have a severe injury which is not yet obvious, the patient may be upgraded in order to deliver that patient to the appropriate level Trauma Center. EMS provider suspicion for a severe injury may be raised by, but not limited to, the following factors:
  - Age greater than 55
  - Age less than 5
  - Extremes of environment
  - Patient's previous medical history such as:
    - Anticoagulation or bleeding disorders
    - End state renal disease on dialysis
  - Pregnancy (>20 weeks)

PEDIATRIC (<16 YEARS) PRE-HOSPITAL  
 TRIAGE AND TRANSPORT GUIDELINES  
 Oklahoma Model Trauma Triage Algorithm

Pediatric Trauma Score (PTS)				
Components	+2	+1	-1	Score
Weight	>20 kg (44 lb)	10-20 kg (22-44 lb)	<10 kg (<22 lb)	
Airway	Patent *	Maintainable ^	Unmaintainable #	
Systolic (cuff) or BP (pulses)	>90 mmHg Radial	50-90 mmHg Femoral/Carotid	<50 mmHg None palpable	
CNS	Awake, no LOC	Obtunded Some LOC †	Comatose, unresponsive	
Fractures	None	Closed (or suspected)	Multiple open or closed	
Wounds	None	Minor	Major‡, Burns, or penetrating	
TOTAL	Range -6 to +12			

Score: Possible Range -6 to +12, decreasing with increasing injury severity

Generally:

- 9 to 12 = minor trauma
- 6 to 8 = potentially life threatening
- 0 to 5 = life threatening
- <0 = usually fatal

\* No assistance required

^ Protected by patient but constant observation required for position, patency, or O<sub>2</sub> administration

# Invasive techniques required for control (e.g. intubation)

† Responds to voice, pain, or temporary loss of consciousness

‡ Abrasions or lacerations

ADULT INTERFACILITY  
TRIAGE AND TRANSFER GUIDELINES  
Oklahoma Model Trauma Triage Algorithm

**Anatomy of the Injury**

Penetrating injury of the head, neck, torso or groin.

Abdominal/Pelvic Injuries

- Hemodynamically unstable patient with physical evidence of abdominal or pelvic trauma
- Unstable pelvic ring disruption
- Pelvic fracture with shock or other evidence of continuing hemorrhage
- Open pelvic fracture
- Penetrating wound of abdomen with suspicion of penetration of the peritoneum
- Ruptured hollow viscous

CNS

- Penetrating Head Injury or Depressed skull fracture
- Open Head Injury
- GCS  $\leq$  10 or deterioration of 2 or more points
- Lateralizing signs
- New neurological deficits
- CSF Leak
- Spinal cord injury with neurological deficits
- Unstable spinal cord injuries

Chest

- Widened mediastinum or other signs suggesting great vessel injury Major chest wall or pulmonary injury with respiratory compromise Cardiac injury (blunt or penetrating)
- Cardiac tamponade
- Patients who may require prolonged ventilation
- Suspected tracheobronchial tree or esophageal injury

Hemodynamic Instability

- SBP consistently  $<90$  following 20cc/kg of resuscitation fluid
- Respiratory distress with rate  $<10$  or  $>29$

Major Extremity Injury

- Fracture/dislocation with loss of distal pulses Amputation of extremity proximal to wrist or ankle Pelvic fractures with hemodynamic instability
- Two or more long bone fracture sites
- Major vascular injuries documented by arteriogram or loss of distal pulses
- Crush Injury or prolonged extremity ischemia

Multiple System

- Head Injury combined with face, chest, abdominal, or pelvic injury
- Significant injury to two or more body regions
- Combination of burns  $> 10\%$  or significant burns involving face, airway, hands, feet or genitalia *without* significant trauma transport to regional Burn Center. Burns  $>10\%$  *with* significant trauma transport to trauma center.

Secondary Deterioration

- Prolonged mechanical ventilation
- Sepsis
- Single or multiple organ system failure (deterioration in CNS, cardiac, pulmonary, hepatic, renal or coagulation systems)
- Major tissue necrosis

**PRIORITY I**

YES

Initiate internal Trauma Treatment Protocol if definitive surgical care and critical care monitoring are available



If definitive surgical care or critical care monitoring are not available then immediate stabilization and transfer to appropriate designated facility according to regional plan. Stabilization may involve surgical intervention prior to transfer. Air transport may be necessary considering time and distance constraints.

NO

Proceed to Priority II Interfacility Transfer Criteria

**ADULT INTERFACILITY  
TRIAGE AND TRANSFER GUIDELINES  
Oklahoma Model Trauma Triage Algorithm**

Abdominal/Pelvic Injuries

- Stable pelvic fractures
- Hemodynamically stable isolated abdominal trauma
  - diffuse abdominal pain/tenderness
  - seat belt contusions
  - visceral injuries
- Hemodynamically stable isolated solid organ injuries

CNS

- Head Injury with GCS > 10
- Head Injury with Transient loss of consciousness < 5 min
- Head Injury with Transient neurological deficits
- Spinal cord injury without neurological deficits

Chest

- Isolated Chest Trauma- pain, mild dyspnea
- Rib fractures, sternal fractures, pneumothorax, hemothorax without respiratory compromise
- Unilateral pulmonary contusion without respiratory compromise

Comorbid

- Age <5 or > 55
- Known cardiac, respiratory or metabolic disease
- Pregnancy
- Immunosuppression
- Bleeding disorder or anticoagulants

Major Extremity Injury

- Single proximal extremity fractures, including open
- Distal extremity fractures, including open
- Isolated joint dislocations-knee, hip, elbow, shoulder without neurovascular deficits
- Unstable joint (ligament) injuries without neurovascular deficits
- Degloving injuries without evidence of limb threatening injury

Mechanism

- Ejection of patient from enclosed vehicle
- Adult auto/pedestrian, auto/bike, or motorcycle crash with significant impact and patient thrown or run over by vehicle
- Falls greater than 20 feet
- Significant assault or altercations
- Other “high energy” events based on Paramedic discretion, e.g.: patients involved in motor vehicle crashes with significant vehicular damage and not using personal safety restraint devices

Other

- Isolated open facial fractures
- Isolated orbit trauma with or without entrapments, without visual deficits

**PRIORITY II**

**YES**

Perform complete trauma evaluation and appropriate serial observation. Consider admission if condition remains stable.

Deterioration of Glasgow Coma Scale, vital signs or patient’s condition or significant findings on further evaluation.

**YES**

**NO**

If definitive surgical care or critical care monitoring are not available, activate Trauma System and prepare for RAPID transfer to the appropriate designated Trauma Facility according to the Regional Trauma Plan. Stabilization may involve surgical intervention.

Consider admission if condition remains stable.

**NO**

**PRIORITY III**

Perform appropriate emergency department evaluation. Consider discharge or admit if condition remains stable.

Deterioration of Glasgow Coma Scale, vital signs or patient’s condition or significant findings on further evaluation: Initiate Trauma Treatment Protocol—Activate Trauma System and prepare for RAPID transfer to the appropriate designated Trauma Facility according to the Regional Trauma Plan if definitive surgical care and critical care monitoring are not available.

PEDIATRIC (<16 YEARS) INTERFACILITY  
 TRIAGE AND TRANSFER GUIDELINES  
 Oklahoma Model Trauma Triage Algorithm

**Anatomy of the Injury**

Penetrating injury of the head, neck, torso or groin.

Abdominal/Pelvic Injuries

- Hemodynamically unstable patient with physical evidence of abdominal or pelvic trauma
- Unstable pelvic ring disruption
- Pelvic fracture with shock or other evidence of continuing hemorrhage
- Open pelvic fracture
- Penetrating wound of abdomen with suspicion of penetration of the peritoneum
- Ruptured hollow viscous

CNS

- Penetrating Head Injury or Depressed skull fracture
- Open Head Injury
- GCS <= 10 or deterioration of 2 or more points
- Lateralizing signs
- New neurological deficits
- CSF Leak
- Spinal cord injury with neurological deficits
- Unstable spinal cord injuries

Chest

- Widened mediastinum or other signs suggesting great vessel injury Major chest wall or pulmonary injury with respiratory compromise Cardiac injury (blunt or penetrating)
- Cardiac tamponade
- Patients who may require prolonged ventilation
- Suspected tracheobronchial tree or esophageal injury

Hemodynamic Instability

- SBP consistently <90 following 20cc/kg of resuscitation fluid
- Respiratory distress with rate of:
  - Newborn <30 or >60
  - Up to 1 yr <24 or >36
  - 1-5 yr <20 or >30
  - Over 5 yr <15 or >30

Major Extremity Injury

- Fracture/dislocation with loss of distal pulses Amputation of extremity proximal to wrist or ankle Pelvic fractures with hemodynamic instability
- Two or more long bone fracture sites
- Major vascular injuries documented by arteriogram or loss of distal pulses
- Crush Injury or prolonged extremity ischemia

Multiple System

- Head Injury combined with face, chest, abdominal, or pelvic injury
- Significant injury to two or more body regions
- Combination of burns > 10% or significant burns involving face, airway, hands, feet or genitalia *without* significant trauma transport to regional Burn Center. Burns >10% *with* significant trauma transport to trauma center.

Secondary Deterioration

- Prolonged mechanical ventilation
- Sepsis
- Single or multiple organ system failure (deterioration in CNS, cardiac, pulmonary, hepatic, renal or coagulation systems)
- Major tissue necrosis

Pediatric Trauma Score <5

**PRIORITY I**

YES →

Initiate internal Trauma Treatment Protocol if definitive surgical care and critical care monitoring are available



If definitive surgical care or critical care monitoring are not available then immediate stabilization and transfer to appropriate designated facility according to regional plan. Stabilization may involve surgical intervention prior to transfer. Air transport may be necessary considering time and distance constraints.

NO →

Proceed to Priority II Interfacility Transfer Criteria

PEDIATRIC (<16 YEARS) INTERFACILITY TRIAGE  
AND TRANSFER GUIDELINES  
Oklahoma Model Trauma Triage Algorithm

Abdominal/Pelvic Injuries

- Stable pelvic fractures
- Hemodynamically stable isolated abdominal trauma
  - diffuse abdominal pain/tenderness
  - seat belt contusions
  - visceral injuries
- Hemodynamically stable isolated solid organ injuries

CNS

- Head Injury with GCS > 10
- Head Injury with Transient loss of consciousness < 5 min
- Head Injury with Transient neurological deficits
- Spinal cord injury without neurological deficits

Chest

- Isolated Chest Trauma- pain, mild dyspnea
- Rib fractures, sternal fractures, pneumothorax, hemothorax without respiratory compromise
- Unilateral pulmonary contusion without respiratory compromise

Comorbid

- Age <5 or > 55
- Known cardiac, respiratory or metabolic disease
- Pregnancy
- Immunosuppression
- Bleeding disorder or anticoagulants

Major Extremity Injury

- Single proximal extremity fractures, including open
- Distal extremity fractures, including open
- Isolated joint dislocations-knee, hip, elbow, shoulder without neurovascular deficits
- Unstable joint (ligament) injuries without neurovascular deficits
- Degloving injuries without evidence of limb threatening injury

Mechanism

- Ejection of patient from enclosed vehicle
- Adult auto/pedestrian, auto/bike, or motorcycle crash with significant impact and patient thrown or run over by vehicle
- Falls greater than 20 feet
- Significant assault or altercations
- Other "high energy" events based on Paramedic discretion, e.g.: patients involved in motor vehicle crashes with significant vehicular damage and not using personal safety restraint devices

Other

- Isolated open facial fractures
- Isolated orbit trauma with or without entrapments, without visual deficits

Pediatric Trauma Score 6-8

**PRIORITY II**

YES

Perform complete trauma evaluation and appropriate serial observation. Consider admission if condition remains stable.

Deterioration of Glasgow Coma Scale, vital signs or patient's condition or significant findings on further evaluation.

YES

NO

If definitive surgical care or critical care monitoring are not available, activate Trauma System and prepare for RAPID transfer to the appropriate designated Trauma Facility according to the Regional Trauma Plan. Stabilization may involve surgical intervention.

Consider admission if condition remains stable.

NO

**PRIORITY III**

Perform appropriate emergency department evaluation. Consider discharge or admit if condition remains stable.

Pediatric Trauma Score 9-12

Deterioration of Glasgow Coma Scale, vital signs or patient's condition or significant findings on further evaluation: Initiate Trauma Treatment Protocol—Activate Trauma System and prepare for RAPID transfer to the appropriate designated Trauma Facility according to the Regional Trauma Plan if definitive surgical care and critical care monitoring are not available.

# **Appendix C**

## **EMTALA**

### **Clarification**

## East Central Regional Trauma Triage and Destination Plan

Prehospital	RTAB: 07-20-06	OTSIDAC: 08-02-06
Interfaculty	RTAB: 07-19-07	OTSIDAC: 08-01-07
EMResource™	RTAB: 07-20-06	OTSIDAC: 08-02-06
Plan modified by OTSIDAC: 02-04-09 (Burn clarification)		
Pan modified by RTAB: 03-19-09 - 10-27-11		

### EMTALA Clarification

#### 1. EMTALA Helipad Usage

There have been some concerns of possible EMTALA violations when using a hospital's helipad to transfer a patient from a ground ambulance to an air ambulance. The following two(2) circumstances will not trigger EMTALA. (Excerpt from the State Operations Manual, Appendix V – Interpretive Guidelines – Responsibilities of Medicare Participating Hospitals in Emergency Cases)

- a. The use of a hospital's helipad by local ambulance services, or other hospitals for the transport of individuals to tertiary hospitals located throughout the state, does not trigger an EMTALA obligation for the hospital that has the helipad on its property when the helipad is being used for the purpose of transit as long as the sending hospital conducted the Medical Screening Exam (MSE) prior to transporting the individual to the helipad for medical helicopter transport to a designated recipient hospital. The sending hospital is responsible for conducting the MSE prior to transfer to determine if an Emergency Medical Condition (EMC) exists and implementing stabilizing treatment or conducting an appropriate transfer. Therefore, if the helipad serves simply as a point of transit for individuals who have received an MSE performed prior to the transfer to the helipad, the hospital with the helipad is not obligated to perform another MSE prior to the individual's continued travel to the recipient hospital. If, however, while at the helipad the individual's condition deteriorates, the hospital at which the helipad is located must provide another MSE and stabilizing treatment within its capacity if requested by medical personnel accompanying the individual.
- b. If as part of the EMS protocol, EMS activates helicopter evacuation of an individual with a potential EMC, the hospital that has the helipad does not have an EMTALA obligation if they are not the recipient hospital, unless a request is made by EMS personnel, the



individual, or a legally responsible person acting on the individual's behalf for the examination or treatment of an EMC.

2. **EMTALA Emergency Department Definitions & Descriptions**

Situations may occur in which patients are diverted to other healthcare facilities provided EMTALA is followed.

Emergency Medical Treatment and Active Labor Act ("EMTALA") refers to Sections 1866 and 1867 of the Social Security Act, 42 U.S.C. Section 1395dd, which obligates hospitals to provide medical screening, treatment, and transfer of individuals with emergency medical conditions or women in labor. It is also referred to as the "anti-dumping" statute and COBRA.

**Emergency Medical Condition:**

1. A medical condition manifesting itself by acute symptoms of sufficient severity (including severe pain, psychiatric disturbances, and/or symptoms of substance abuse) such that the absence of immediate medical attention could reasonably be expected to result in:
  - a. Placing the health of the individual or, with respect to a pregnant woman, the health of a woman and her unborn child in serious jeopardy;
  - b. Serious impairment of bodily functions, or
  - c. Serious dysfunction of any bodily organ or part; or
2. With respect to a pregnant woman who is having contractions:
  - a. That there is inadequate time to effect a safe transfer to another hospital before delivery; or
  - b. That transfer may pose a threat to the health or safety of the woman or the unborn child.
3. **Capacity** means the ability of the hospital to accommodate the individual requesting examination or treatment of the transferred individual. Capacity encompasses number and availability of qualified staff, beds, equipment, and the hospital's past practices of accommodating additional patients in excess of its occupancy limits.

Such as Emergency Department beds are filled, patients are backed up in the emergency Department waiting room, and there are no other beds or personnel available to provide appropriate care for the patients.

4. **Capabilities** of a medical facility or main hospital provider means the physical space, equipment, supplies, and services (e.g. trauma care, surgery, intensive care, pediatrics, obstetrics, burn unit, neonatal unit, or psychiatry), including ancillary services available at the hospital. The capabilities of the hospital's staff mean the level of care that the hospital's personnel can provide within the training and scope of their professional licenses. For off-campus departments, the capability of the hospital as a whole is included. The obligations of the hospital provider must be discharged within the hospital as a whole. However, the hospital is not required to locate additional personnel or staff to off-campus departments to be on-call for possible emergencies.
5. Under no circumstances will an Emergency Department patient who has emergency medical conditions be transferred to another facility because of inability to pay for services or based on any illegal form of discrimination (national origin, race, gender, religion, etc.). Prior to any Emergency Department transfer, the Emergency Department staff will comply fully with EMTALA. A transfer form is to be used for patients who are transferred to a different acute care facility.
6. If a patient comes to the hospital property or premises and has an emergency medical condition, the hospital must provide either:
  - a. further medical examination and treatment, including hospitalization, if necessary, as required to stabilize the medical condition within the capabilities of the staff and facilities available at the hospital; or
  - b. a transfer to another more appropriate or specialized facility.
7. **Comes to the Emergency Department** with respect to an individual presenting for examination and treatment for what may be an emergency medical condition means that the individual is on the hospital property or premises is considered to have come to the hospital's Emergency Department.

# **Appendix D**

## **Advanced Life Support Intercept Protocol**

## East Central Regional Trauma Triage and Destination Plan

Prehospital RTAB: 07-20-06 OTSIDAC: 08-02-06  
Interfaculty RTAB: 07-19-07 OTSIDAC: 08-01-07  
EMResource™ RTAB: 07-20-06 OTSIDAC: 08-02-06  
Plan modified by OTSIDAC: 02-04-09 (Burn clarification)  
Pan modified by RTAB: 03-19-09 - 10-27-11

### **ALS Intercept Protocol for Region 4**

1. Purpose:

To provide guidelines to Emergency Medical Service personnel on when to request Advanced Life Support (ALS) assistance from neighboring ambulance services.

2. Policy:

The following will apply to ensure that BLS/ALS assistance requests are managed appropriately. ALS assist is defined as any request for an air or ground ALS support unit to respond to and/or intercept with an EMS unit for the purpose of providing an advance level of patient care. A licensed Intermediate or Paramedic level of care should provide ALS assist.

ALS assist/intercept request should be made in any situation where the EMS provider has determined that the patient may be unstable or has life-threatening injuries or illness. Medics should refer to the Oklahoma Trauma Triage and Transportation guidelines for classification of the patient.

3. Procedure:

- a. Consideration must be given as to the location of the EMS unit, and anticipated location of intercept. The decision to request ALS should be made immediately.
- b. The location of the intercept shall be decided as soon as possible.
- c. Only if it is deemed to be in the best interest of the patient should the patient be transferred from a BLS unit to a ground ALS unit.
- d. The ALS provider should be licensed at the Intermediate or Paramedic level or an Air Ambulance.
- e. BLS and ALS personnel may elect to request air medical support based on the

## East Central Regional Trauma Triage and Destination Plan

Regional Trauma Plan. BLS personnel need not wait for an assessment prior to requesting air medical support. Landing zone selection and security shall be coordinated with local resources. Transportation to the closest most appropriate medical facility shall not be inordinately delayed while waiting for air support.

- f. A full verbal patient care report shall be given to the ALS personnel upon arrival and a full patient care report will be left with the patient at the hospital.

## **Appendix E**

# **East Central Region Trauma Advisory Board Bylaws**

RTAB Approved: 12-09-04  
OTSIDAC Approved: 01-13-05  
Revised by RTAB Members: 11-19-09, 10-26-10, 05-15-14, 05-18-17

## **NAME AND GEOGRAPHIC DESCRIPTION**

1. Name

East Central Trauma Region, Inc.

2. Geographic description

The East Central Trauma Region encompasses the following counties:

Adair, Cherokee, Creek, Haskell, McIntosh, Muskogee, Okmulgee, Sequoyah, and Wagoner

### **MISSION STATEMENT**

In support of the statewide system, create a regional system of optimal care for all trauma patients, to ensure the right patient goes to the right place in the right amount of time.

### **PURPOSE**

The purpose of the Regional Trauma Advisory Board (RTAB) is to assist the Oklahoma Trauma and Emergency Response Advisory Council and Oklahoma State Department of Health with the development and implementation of a formal trauma care system regionally and statewide.

1. The Regional Trauma Advisory Board shall be empowered but not limited to: assessing the current resources and needs within the region respective to Emergency Medical Services (EMS), acute care facilities, rehabilitation facilities, communication systems, human resources, professional education, public education and advocacy.
2. Organizing regional human resources into coalitions and / or alliances, which will be proactive in trauma systems development.
3. Development of Regional Trauma System Development plan.
4. Development and implementation of Regional Trauma Quality Improvement program.
5. Providing public information and education programs regarding the need for a formal trauma care system.
6. Providing region – specific input to the Oklahoma Trauma and Emergency Response Advisory Council and Oklahoma State Department of Health concerning trauma care issues.

## **INITIAL STRUCTURE**

The Commissioner of Health shall appoint the first chair of the board who will serve for the first year.

This chair will work with the other providers identified for the initial membership rotation to identify the other individuals who will serve the first year.

## **GENERAL MEMBERSHIP**

Responsibilities of the General Membership

1. General Membership is composed of representatives from all of the licensed hospitals and ambulance service providers in the region, who are not current board members, as well as other interested individuals.
2. Responsibilities of the General Membership  
The General Members are expected to attend meetings regularly to provide input and receive updates on matters under consideration by the Board, but do not maintain voting privileges.
3. Committee Service  
General Members may serve on committees, work groups and task forces.
4. Attendance Expectations  
The General Members may be subject to licensure action if a member misses one (1) scheduled meeting in any year (75% minimum annual attendance).

## **BOARD MEMBERSHIP**

Definition of Permanent Member

1. Hospital  
Any Level III facility that is in compliance with Region 4 Bylaws shall be permanent member of the Board. This definition shall become effective for the 2015 Board.
2. EMS  
EMS Permanent Members shall be made up of two (2) licensed EMS Agencies that are in compliance with Region 4 Bylaws. The EMS Permanent Members shall be based on the largest call volume within Region 4 for the most recent completed calendar year, and one air ambulance service rotated alphabetically by name. When a corporation holds multiple licenses in Region 4 they will be considered as one (1) rotation. This definition shall become effective for the 2017 Board.



East Central Regional Trauma Triage and Destination Plan

The Board at the annual meeting shall approve the selection of permanent and rotating board members for the next year. Prior to the annual meeting, all agencies and facilities are to ensure the board is aware of any licensure or call volume changes.

Board member rotation shall be based on the previous year’s attendance; but will maintain a ratio of approximately:

60% Hospital representatives’

40% EMS representatives’

Also, new members will be eligible for Board Membership upon the start of the next rotation.

Board Membership shall be multidisciplinary with broad representatives from the following list of disciplines.

(Amendment approved on November 10, 2005)

Hospital		Emergency Medical Services
1. Administrator		1. Administrator
2. Business office		2. Non Administrator EMT-B
3. QI practitioner		3. Non Administrator EMT-I
4. Emergency department physician		4. Non Administrator EMT-P
5. Surgeon		5. Business office
6. Trauma nurse coordinator		
6. Trauma registrar		
7. Emergency department nurse		
8. Operating room nurse		
9. Rehabilitation practitioner		
10. Safety officer		

1. Powers and Responsibilities

The Board Members are responsible for overall policy and direction of the RTAB.

2. Duties of the Board Members

Board members shall exercise ordinary business judgment in managing the affairs of the organization. In acting in their official capacity as Board Members of this organization they shall act in good faith and take actions they reasonably believe to be in the best interest of the organization and that are not unlawful. In all other instances, the Board Members shall not take any action that they should reasonably believe would be opposed to the organization’s best

## East Central Regional Trauma Triage and Destination Plan

interests or would be unlawful. Responsibilities of the Board Members include but are not limited to:

- a. Conduct the business of the organization.
  - b. Specify the composition of and direct the activities of committees.
  - c. Consider for approval recommendations from committees.
  - d. Cause to be prepared and administer the budget, prepare annual reports of the organization.
  - e. Cause to be prepared grant applications for the organization.
  - f. Approve, execute and / or ratify contracts made in ordinary course of business of the organization.
  - g. Make continuous and regular reviews of RTAB matters and business affairs in order to provide information to General Membership.
3. Number of Board Members
- The Board shall consist of no fewer than nine (9) members and no more than twenty (20) members.
4. Actions of the Board
- Each Board Member shall be entitled to one (1) vote on each matter submitted to a vote at a meeting of the Board. A simple majority of the Members present and voting at a meeting at which a quorum is present shall be sufficient to constitute action by the Board.
5. Term
- The term of the Board Members is one calendar year.
6. Appointments
- Member organizations will appoint a representative and an alternate to the board, but will have only one (1) vote each meeting. If both primary and alternate member are present at a meeting, the representative who responds to the Roll Call shall hold the voting right.
7. Meetings
- Meetings of the Board shall be held in accordance with the Oklahoma Open Meeting Act. Meetings of the Board Members shall be held at such times and places as determined by the Board Members. These meetings must be held at least quarterly.
- The Board shall not review patient specific information or medical records at these meetings.
8. Attendance Expectations / Removal of Board Members
- a. A Member is automatically removed from the Board if he/she misses one scheduled

## East Central Regional Trauma Triage and Destination Plan

meeting in any year without arranging for a proxy.

- b. Vacancies - In the event that a Board Member is removed from the board, the effected member organization will be asked to appoint a new member to take the place of the removed representative.
  - c. Any member organization that fails to ensure participation by their representative shall be reported to both the Oklahoma Trauma and Emergency Response Advisory Council and the member organization's licensing authority.
  - d. Any member organization may request an excused absence from the Board. It shall take a unanimous vote of the Board overturn an absence.
9. Proxies
- A Proxy for attendance and voting at a meeting must be initiated by the authorized representative, or the member organization administrator. This must be a signed statement on the represented organization's letterhead state the authority of a specifically named substitute to attend and vote on their behalf. The Proxy shall be delivered to the RTAB meeting prior to Calling to Order and shall be retained with the roll call. A Proxy shall only be valid at the meeting for which it executed.
10. Quorum
- A simple majority of the Board shall constitute a quorum at any meeting.

### **Officers**

1. The following officers shall be elected from the Board Members  
Vice-Chair, Secretary and Treasurer
2. The chair shall be the executive officer of the RTAB and shall  
Set the agenda and preside at all meetings of the RTAB; the Board Members may create additional officer positions, defined authority and duties of each position, and elect persons to fill the positions.
3. Nominations  
Nominations of candidates for office shall occur at least one (1) month prior to the election.
  - a. The candidates shall be Board Members for the upcoming year.
  - b. The candidates shall express a willingness to serve.
4. The same person shall hold no more than one (1) office.
5. The term for officers shall be one (1) year with an option to renew for one (1) year.

## East Central Regional Trauma Triage and Destination Plan

6. Individual board officers may only succeed themselves into their present position once.
7. Board Officers will be elected and rotated in the following manner:
  - a. Treasurer and Secretary and Vice Chair are elected each year with the option to succeed themselves once.
  - b. Chair of the Board will be rotated for the Vice Chair position when elected or term limited.
  - c. The past Chair will be rotated from the Chair when elected or term limited.
  - d. When the past Chair is rotated from office, the individual may enter into the rotation for consideration of future office.
8. Board Member shall be subject to the same attendance requirements general and Board Members (75% minimum annual attendance).
9. Vacancies  
A vacancy in any office may be filled by the Board for the un-expired portion of the officer's term.
10. Additional Offices  
The Board Members may create additional officer positions, define the authority and duties of each such position, and elect persons to fill the position.
11. Attendance Expectations / Removal of Officers  
An officer is automatically removed from office if he/she misses one (1) consecutive posted meeting or 75% of the scheduled meetings in any year without making arrangement for a proxy to attend.

### **DUTIES OF OFFICERS**

1. Past Chair
  - a. Shall be utilized for the purpose of a continuum of the RTAB board functions.
  - b. The Past Chair shall have Board Member (if currently serving as a Board Member) voting privileges.
  - c. May participate in any committee as deemed necessary by the Chair.
2. Chair
  - a. Appoint all committee chairs.
  - b. Sign agreements and contracts after authorization by the Board.
  - c. Call special meetings when necessary.

## East Central Regional Trauma Triage and Destination Plan

- d. Ensure that the RTAB is represented at Oklahoma Trauma and Emergency Response Advisory Council Meetings.
  - e. Ensure that the RTAB membership is informed of all appropriate state and regional meetings.
  - f. Ensure that the RTAB membership is informed of all appropriate state and legislative activities.
  - g. Perform other tasks as deemed necessary by the Board Members.
3. Vice-chair
- Shall perform the duties of the Chair in the absence of the Chair and perform such duties as assigned by the Chair of the Board.
4. Secretary
- a. Ensure dissemination of all notices required by the Bylaws or by the Oklahoma Open Meeting Act.
  - b. Assure a meeting attendance roster is maintained.
  - c. Assure a register of the name and mailing address of each member organization is maintained.
  - d. Ensure minutes are kept of all proceedings of the Board meetings.
  - e. Manage the correspondence of the organization.
5. Treasurer
- a. Manage all funds and assets of the RTAB.
  - b. Monitor monies due and payable to the RTAB.
  - c. Ensure the preparation of the annual budget and present it to the Board Members for approval.
  - d. Monitor the financial records of the RTAB and arrange for an independent audit when so directed by the Board Members.

## MEETINGS

1. Meetings of the Board shall be held in accordance with the Oklahoma Open Meeting Act.
2. An Annual Board Meeting shall occur each fall. A meeting notice shall be mailed to all member-organizations at least 30 days prior to the meeting. The meeting dates, times and places for the forthcoming year shall be established at the annual meeting.

## East Central Regional Trauma Triage and Destination Plan

3. Meetings for the forthcoming year shall be posted with the Secretary of State in accordance with the Oklahoma Open Meeting Act prior to December 15. Any changes to the meeting schedule shall be duly noted to the Secretary of State.
4. Notice of the date, time and place of each meeting shall be mailed or e-mailed to each Board Member at least ten (10) days prior to the date of that meeting. The notice of each meeting shall include an agenda of the matters to be considered.
5. These meetings must be held at least quarterly.
6. The Board shall not review patient specific information or medical records at these meetings.
7. Members of the General Membership are encouraged to attend these meetings to provide input on topics under consideration by the board.
8. Special Meetings  
Special meetings of the Board may be called by the Chair of the Board, Vice-Chair of the Board, or by any three members of the Board on not less than forty-eight (48) hours' notice. Notice of such a meeting must be posted as a special meeting with the Secretary of State. Notice to Board Members can be communicated by mail, e-mail, telegram, telephone, or fax.

## COMMITTEES

1. Continuous Quality Improvement Committee
  - a. Each RTAB is required by statute to conduct quality improvement activities.
  - b. The function of this committee is to decrease death and disability by reducing inappropriate variation in care through progressive cycles of performance review.
  - c. A multidisciplinary standing committee for Quality Improvement shall be created in each region.
    1. Minimum recommended membership requirement:
      - i. Emergency Department Physician, surgeon, Emergency Department Nurse
      - ii. Operating Nurse
      - iii. EMS Medical Director, EMT, air Service Provider
    2. Other members for this committee may be identified based upon the need of the region. It is suggested that the membership be kept to 10 members or fewer.
    3. Other specific disciplines that are not regular members of the committee may be called on to meet specific quality improvement needs.

## East Central Regional Trauma Triage and Destination Plan

4. A simple majority shall constitute a quorum to conduct business.
  5. Upon approval by the chair, a committee member is automatically removed from the committee if he/she misses two (2) consecutive scheduled meetings or 40% of the scheduled meetings in any year.
- d. Vacancies
1. Notice of a vacancy shall be distributed to Board Members at least ten (10) days prior to a scheduled meeting.
  2. Volunteers/recommendations to fill the vacancy in membership on this committee shall be accepted and voted on at the next scheduled meeting of the Board.
- e. Volunteers/recommendations for membership on this committee shall be accepted at the annual meeting, and membership appointments decided by a vote of the board members at the following meeting.
- f. Each region shall adopt confidentiality policies for the committee.
- g. Minimum Quality Improvement activities shall be defined by the State Medical Audit Committee.
- h. The regional committee may identify other activities to monitor based upon regional need.
- i. Committee Tenure
- Membership on this committee is for a term of two (2) years. Half of the initial appointments to this committee shall be for a term of one year to ensure staggered terms.
2. Standing Committees shall be established by a majority vote of the Board
- a. Standing committees may include but are not limited to: Hospital Care Committee, Pre-Hospital Care Committee, Injury Prevention Committee, EMS/Hospital Disaster Committee, Trauma Coordinator Committee, Trauma Registry Committee, Finance, Professional Education, Membership, Bylaws, Public Relations, Regional Planning Committee and Research.
  - b. At least one (1) Board Member shall serve on each standing committee.
  - c. The Board may recommend the remaining membership on these committees.
  - d. Each standing committee shall recommend a candidate for the committee Chair for RTAB Chair approval.

## East Central Regional Trauma Triage and Destination Plan

- e. Each person on a committee shall continue to serve on the committee until the next annual meeting of the Board and until his/her successor is appointed unless sooner removed or the committee is dissolved.
- f. The Chair of the Board, the Chair of the committee or majority of the committee may call meetings of a committee. Each standing committee shall meet at least annually.
- g. Notice of the committee meetings must be given in accordance with the Oklahoma Open Meetings Act.
- h. A majority of the voting persons on the committee shall constitute quorum.

### 3. Special Committees

The Board may create special, ad hoc, or task force committees based upon the recommendation of the Board Members.

- a. Members of these committees are not required to be members of the Board.
- b. The Board shall appoint members of these committees.
- c. These committees will have no power to act other than as specifically authorized by the Board.
- d. The tenure of these committees will be decided by the Board based upon the specific need for the committee.

### 4. Committee Resignations, Removal and Vacancies

Any person on a committee may resign from the committee at any time by giving written notice to the chair of the Board, chair of the committee or to the secretary of the Board.

### 5. Committee Minutes

The Chair of each committee shall prepare complete and accurate minutes of each meeting and promptly forward duplicate originals thereof to the Secretary of the Board.

### 6. Action by Committee

The Recommendations by the committee are to be taken back to the Board for action.

### 7. Committee Compensation

Persons serving on a committee shall not receive salaries for their services, but by resolution of the Board a reasonable amount for expenses incurred in attending to authorized duties may be allowed; provided however that nothing herein contained shall be construed to preclude any member of the committee from serving.



## FINANCES

### 1. Deposits

All money received by the corporation shall be deposited with a bank, trust company or other depository that the Board selects, in the name of the corporation. All checks, notes, drafts and acceptances of the corporation shall be signed in the manner designated by the Board Members.

### 2. Gifts

- a. The Board may accept on behalf of the RTAB any contribution, gift, bequest or legacy that is not prohibited by any laws or regulations in the State of Oklahoma.
- b. The Board may make gifts and charitable contributions that are not prohibited by the Bylaws, state law and are not inconsistent with the requirement for maintaining the RTAB's status as an organization exempt from taxation under Section 501 (c) (3) of the Internal Revenue code.

### 3. Conflicts of Interest

- a. The Board shall not make a loan to any Board Member or member organization.
- b. The Board shall not borrow money from a Board Member, a member organization, and employee of a member organization or a family member of a member organization unless:
  1. The transaction is described fully in a legally binding instrument.
  2. The transaction is found to be in the best interests of the RTAB after full disclosure of all relevant facts at a scheduled meeting of the Board.
  3. Such action requires a 2/3 majority vote of the Board (excluding the vote of any person having a personal interest in the transaction) at a meeting when quorum is present.
  4. Disclosure of intent to undertake such action is declared to the OSDH and the OTSIDAC for approval prior to action.
- c. The Board shall not transact business with a Board Member, a member organization, an employee of a member organization or a family member of a member organization unless:
  1. The transaction is described fully in a legally binding instrument.

2. The transaction is found to be in the best interests of the RTAB after full disclosure of all relevant facts at a scheduled meeting of the Board.
3. Such action requires a 2/3 majority vote of the Board (excluding the vote of any person having a personal interest in the transaction) at a meeting when a quorum is present.
4. Disclosure of intent to undertake such action is declared to the OSDH and the OTISDAC for approval prior to action.

## **PARTICIPATION**

All member organizations are required to participate in RTAB activities. Member organizations who are not currently represented on the Board may meet this requirement by attending meetings at least quarterly to give input the Board.

### **1. Remote Locations**

Individual RTABs may arrange for remote locations to Video Conference or Teleconference into their meetings to facilitate participation by member organizations. It is understood that Board members must attend at the published meeting location to meet the requirements of the Oklahoma Open Meetings Act.

## **EMResource™**

The RTAB adopts the policies, standards and definitions recommended by the Oklahoma State Department of Health for the operations of EMResource™. Any recommendations for changes to these documents will be made to the OSDH Emergency Systems division for consideration for statewide adoption. Because this is a statewide system, all changes must be made on a statewide basis. Any necessary regional operational procedures will be subject to approval by the RTAB.

## **AMENDMENT OF BYLAWS**

The Bylaws may be altered, amended or repealed, and new Bylaws may be adopted by a vote of the Board Members held at a regularly scheduled meeting held in compliance with the Open Meetings Act or at a meeting specially called for the purpose of altering, amending or repealing the Bylaws.

1. The notice and/or agenda of any meeting at which the Bylaws are altered, amended or repealed shall include the text of the proposed provisions as well as the text of any existing provisions proposed to be altered, amended or repealed.

## **Appendix F**

### **Stroke Plan**

## East Central Regional Trauma Triage and Destination Plan

### 1. Introduction

This plan will serve as a guide for Region 4 for patients presenting with signs or symptoms of acute stroke even if the symptoms are resolving or have resolved (Transient Ischemic Attack). It establishes Stroke patient priorities, outlines hospital capabilities, and provides guidance for the appropriate selection of destination facilities for patients presenting with signs and symptoms of acute stroke.

### 2. Stroke Patient Prioritization

- a. Stroke 1: Patients with signs and symptoms of stroke with a last known well time between zero minutes and four and a half hours. These patients have a time sensitive emergency requiring the immediate care provided by a Level I, Level II, or Level III Stroke Center. Stroke 1 patients should be transported urgently to the closest Level I, Level II, or Level III Stroke Center.
- b. Stroke 2: Patients with signs and symptoms of stroke with a last known well time between four and a half hours and seven hours. These patients may be a candidate for surgical intervention. Stroke 2 patients should be transported urgently either to the closest Level I Stroke Center or Level II Stroke Center with twenty-four-hours endovascular capability and a dedicated neuro intensive care unit.
- c. Stroke 3: Patients with signs and symptoms of stroke with a last known well time greater than twenty-four-hours, or unknown last known normal time, or “wake-up” stroke. These patients may be transported to the closest Level I, Level II, or Level III Stroke Center.
- d. Special Transport Considerations:
  1. Patient preference will be considered for all patient transports;
  2. Unstable patients should be transported to the facility located closest to the event. Examples of unstable patients include:
    - a. Unable to obtain/maintain a patent airway;
    - b. Deteriorating vital signs indicating hemodynamic compromise; or
    - c. Cardiac arrest.

### 3. Stroke Center Categorization

- a. Level I Stroke Center: Level I Stroke Centers are nationally accredited and have 24/7 neurological and endovascular intervention capability along with all requirements of a Level II Stroke Center.

## East Central Regional Trauma Triage and Destination Plan

- b. Level II Stroke Center: Level II Stroke Centers are nationally accredited and have 24/7 imaging availability and are dedicated to the timely and appropriate treatment of stroke patients. Level II centers are dedicated to the acute and post-acute care of stroke patients with the ability to provide inpatient rehabilitation services. All Level II Stroke Centers have a transfer agreement with a Level I Stroke Center that allows for 24/7 access to neurology consults.
- c. Level III Stroke Center: Acute Stroke Ready hospitals have 24/7 CT availability, an organized stroke team, and the ability to administer alteplase.
- d. Level IV Stroke Center: Non stroke ready hospital.

### **List of Stroke Centers within or accessible to Region 4 assets:**

- 1. **Level I Stroke Center:**
  - a. St. Johns Tulsa
  - b. Hillcrest Medical Center Tulsa
- 2. **Level II Stroke Center:**
  - a. Saint Francis Tulsa
  - b. Washington Regional Fayetteville
- 3. **Level III Stroke Center**
  - a. Saint Francis Muskogee
  - b. Haskell County Community Hospital
  - c. Northeast Health System Tahlequah
  - d. Northeastern Health System Sequoyah
  - e. WW Hastings
  - f. Wagoner Community Hospital
- 4. **Level IV Stroke Center**
  - a. All other hospitals not listed above.

## **Appendix G**

### **Letter Schedule of escalation**

## East Central Regional Trauma Triage and Destination Plan

The purpose of this proposal is to establish and define a statewide process to address organizations that fail to respond to letters received from the Regional Continuous Quality Improvement Committee in order to encourage participation in continuous quality improvement activities as required by Title 63 §1-2530.3 for the betterment of the Oklahoma State Trauma System.

Tier 1- Initial Letter from the Regional Continuous Quality Improvement (CQI) Committee is signed by the committee signatory (ies) and sent to the appropriate recipient named below.

EMS Agencies-Initial letter for system errors or queries will be sent to the Medical Director and the EMS Director on file with The Oklahoma State Department of Health (OSDH).

Hospitals- Initial letters for system errors or queries that occur related to the function of the Emergency Department (ED) will be sent to the ED Medical Director and the ED Director/ Manager. Initial letters for system errors or queries that occur related to the function of areas outside of the ED will be sent to the Chief Medical Officer/ Chief of Staff and Chief Executive Officer/ President.

Response deadline: 30 days from the documented receipt of the letter.

Tier 2- No response to the initial letter from the CQI Committee by the Tier 1 deadline.

OSDH staff will place a call to the authorized Regional Trauma Advisory Board (RTAB) representative to enlist help providing a reminder to the letter recipient to respond and communicate the new deadline for receipt.

Response deadline: 15 days from successful contact with RTAB representative.

Tier 3- No response to the initial letter from the CQI Committee by the Tier 1 deadline or reminder call from OSDH staff with the Tier 2 deadline (approximately 45 days from receipt of initial letter).

A letter addressing the lack of response signed by RTAB Chair with a copy of the initial letter and sent to the appropriate recipient named below.

EMS Agency: Medical Director and the EMS Director on file with The Oklahoma State Department of Health (OSDH) as well as the appropriate License Owner/City Manager.

Hospital: CEO and CMO

Response deadline: 15 days from documented receipt of the Tier 3 letter.

Tier 4- No response to Tier 3 letter

A letter addressing the lack of response signed by the Oklahoma Trauma and Emergency Response

## East Central Regional Trauma Triage and Destination Plan

Advisory Council (OTERAC) chair with copies of all previous tier letters and sent to the appropriate recipient named below.

EMS Agency: Medical Director and the EMS Director on file with The Oklahoma State Department of Health (OSDH) as well as the appropriate License Owner/City Manager.

Hospital: CEO and CMO

Response deadline: 10 days from documented receipt of the Tier 4 letter.