OKLAHOMA
State Department
of Health

Southeast Region (5) Regional Trauma Advisory Board

Regular Meeting
Thursday, May 13th, 2021 – 10:30 a.m.

Location of Meeting: Microsoft Teams
Click here to join the meeting

https://teams.microsoft.com/l/meetup-join/19%3ameeting_MjhhODE1ZTEtMDcyZC00N2ZiLWFhMjktNjMzZjFhNDQzNDY0%40thread.v2/0?context=%7b%22Tid%22%3a%229a307864-3e98-4f08-b90a-728b62cf32c5%22%2c%22Oid%22%3a%22463c8334-e408-4d1d-b4eb-52f4b934efe4%22%7d

Join By Phone: +1 405-898-0717 **United States, Oklahoma City (Toll)**
Phone Conference ID: 463 498 489# (Mute/Unmute *6)

There is no physical meeting location. All Advisory Board Members are participating remotely via the Microsoft Teams platform shown above. Advisory Council Members are:

(Pamela Cunningham, Chair), (Korey Langston, Secretary),
Air Evac Lifeteam 129 Idabel/Justin Kinkade, Air Evac Lifeteam 139 Paris, Texas /James Smith, Air Evac Lifeteam 149 Ft Smith, Arkansas /Rick Rauser, Air Evac Lifeteam Seminole/Ben McFarland, Air Evac Lifeteam 022 Paris, Arkansas/Michael Perrin, Air Evac Lifeteam 065 Sherman, Texas/Justin Kinkade, Air Evac Lifeteam 073 DeQueen, Arkansas/Michael Perrin, AllianceHealth Durant/Nicole Truett, AllianceHealth Madill/Michael Walker, AllianceHealth Seminole/Michelle Quinalty, Antler (City of) EMS/Delbert Gay, Atoka County EMS/Randy Bryant, Atoka County Medical Center/Rusty Cole, Bryan County EMS/Brian Norton, Choctaw County Ambulance Authority/Randy Springfield, Choctaw Memorial Hospital/Nick Rowland, Choctaw Nation EMS/Gerrick L Johnson, Choctaw Nation Health Service Authority/Gerrick L Johnson, Coalgate Fire Department EMS /Lance Cartlidge, Colbert EMS/Toni Coates, Creek Nation Community Hospital/Sara Davis, Creek Nation EMS/Scott Randall, Eastern Oklahoma Medical Center/Ramie Bise, EMS of LeFlore County/Keith Lickly, Holdenville General Hospital/Kathy Green, Hughes County EMS/Kristy Lashbrook, International Paper EMS/David Bruner, Konawa EMS/James Lampkin, Marshall County EMS District/Kenneth Allen, Mary Hurley Hospital/Savannah Mitchell, McAlester Army Ammunition Plant/Chris Morris, McAlester Fire Department/Benny Brooks, McAlester Regional AirCare/Korey Langston, McAlester Regional Health Center/Pamela Cunningham, McCurtain County EMS/Cindy Conley, McCurtain Memorial Hospital/Sandra Leggett, Pafford EMS of Oklahoma (McAlester)/Will Pope, Paris Regional Medical Center/Jynnel Elder, Pushmataha County Antlers Hospital/Jauquetta Trotter, Seminole Fire-Rescue/Merrick Ashby, Weleetka Graham EMS/Blayne Husong, Wewoka Fire Department/Kevin Green.

Agenda

I. **Welcome and Introductions……..Pamela Cunningham, Chair**

II. **Roll Call……..Korey Langston, Secretary**

III. **Approval of Minutes – November 12th, 2020……..Pamela Cunningham, Chair**

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IV. Reports/Updates

- **A. Emergency Systems Quarterly Activity Report……Dean Henke**
- **B. Quality Improvement Committee……Nate Toews, Committee Member**
- **C. Hospital Stroke Liaison Report……Ramie Bise, Stroke Liaison Region 5**
- **D. Regional Educational Planning Committee……Kari Beggs, Committee Chair**
- **E. Regional Medical Response System……Kari Beggs**
- **F. EMS for Children……Delores Welch**

VI. Business

- **A. Discussion, consideration, possible action, and vote to add Robert Pierce and Nicole Truett to the Quality Improvement Committee……Pamela Cunningham, Chair**
- **B. Discussion, consideration, possible action, and vote to excuse the absence for McAlester Regional Medical Center for a calendar miscommunication……Pamela Cunningham, Chair**
- **C. Discussion, consideration, possible action and vote to add the new verbiage and amendments to the Region 5 Trauma Plan for the Quality Improvement Escalation Process – Edits are in RED in your members packet……Pamela Cunningham, Chair**

VII. Presentation/Discussion……Dr. Larissa Hines

- **A.** Non-Accidental Trauma

VIII. New Business……Pamela Cunningham, Chair
(For matters not reasonably anticipated 48 hours prior to the meeting)

IX. Comments from the Board and General Members……Pamela Cunningham, Chair

- *If attending through the Teams website, please raise a virtual hand for your name to be included in the comments queue.*
- *Comments will be received with people who raised a virtual hand through Teams, followed by those who are attending by phone conference. The comment order will be alphabetically (a-z) based on the attendee's last name.*
- *To ensure that everyone who desires to make a comment has had the opportunity to speak, after comments have been made by attendees who raised a virtual hand in Teams or identified themselves when the beginning letter of their last name was called for phone conference attendees, we will then make one last final call for attendees to identify themselves who want to make a comment, but have not done so.*

X. Next Meetings: ……Pamela Cunningham, Chair

- **A. Quality Improvement Committee**
  May 13th, 2021 – 1:00 pm
- **B. Regional Education Planning Committee**
  August 12th, 2021 – 9:30 am
- **C. Regional Trauma Advisory Board**
  August 12th, 2021 – 10:30 am
- **D. Quality Improvement Committee**
  August 12th, 2021 – 1:00 pm
- **E. Oklahoma Trauma and Emergency Response Advisory Council**
  June 2nd, 2021 – 1:00

X. Closing, Adjournment, and Dismissal……Pamela Cunningham, Chair

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Southeast Region (5) Regional Trauma Advisory Board

Join Microsoft Teams Meeting

https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZWQwZGIzODUtOGI4Mi00NDA4LTkwZjEtZWVmNjE4YzgwZDQw%40thread.v2/0?context=%7b%22Tid%22%3a%229a307864-3e98-4f08-b90a-728b62cf32c5%22%2c%22Oid%22%3a%22463c8334-e408-4d1d-b4eb-52f4b934efe4%22%7d

Optional Ways to Join
1-405-898-0717
Conference ID: 500 279 437
November 12th, 2020 – 10:30 am

Minutes

Meeting notice was posted with the Oklahoma Secretary of State on Tuesday December 3, 2019 10:24 am and amended to reflect a virtual meeting on Friday Sep 18, 2020 3:02 pm.

The following Board Members are participating remotely using Microsoft Teams teleconferencing platform:

Air Evac Lifeteam 129 Idabel
AllianceHealth Durant
Atoka County Medical Center
Choctaw Nation Health Service Authority
Eastern Oklahoma Medical Center
Mary Hurley Hospital
McAlester Regional Health Center
McCurtain Memorial Hospital
Pushmataha County Antlers Hospital
Air Methods
Antler (City of) EMS
Bryan County EMS
Coalgate Fire Department EMS
EMS of LeFlore County
McAlester Regional Air Care
McCurtain County EMS
Pafford EMS of Oklahoma (McAlester)

The following General Members are participating remotely using Microsoft Teams teleconferencing platform:

Air Evac Lifeteam 139 Paris, Texas
Air Evac Lifeteam 022 Paris, Arkansas
Air Evac Lifeteam 073 DeQueen, Arkansas
AllianceHealth Seminole
Choctaw County Ambulance Authority
Colbert EMS
Creek Nation EMS
Hughes County EMS
Konawa EMS
McAlester Army Ammunition Plant
Paris Regional Medical Center
Weleetka Graham EMS
Air Evac Lifeteam 149 Ft Smith, Arkansas
Air Evac Lifeteam 065 Sherman, Texas
AllianceHealth Madill
Atoka County EMS
Choctaw Memorial Hospital
Creek Nation Community Hospital
Holdenville General Hospital
International Paper EMS
Marshall County EMS District
McAlester Fire Department
Seminole Fire-Rescue
Wewoka Fire Department

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I. Call to Order – Secretary Korey Langston

The Meeting was called to order by Secretary Korey Langston at 10:33 am.

II. Welcome and Introductions – Secretary Korey Langston

There were no introductions.

III. Roll Call – Secretary Korey Langston

Roll call was taken with the following Board Members present: Air Evac Lifeteam 129 Idabel, Air Methods, AllianceHealth Durant, Antlers (City of) EMS, Atoka County Medical Center, Bryan County EMS, Choctaw Nation EMS, Choctaw Nation Health Services Authority, Eastern Oklahoma Medical Center, EMS of LeFlore County, McAlester Regional AirCare, McCurtain Memorial Hospital, Pafford EMS of Oklahoma (McAlester), Pushmataha County Antlers Hospital. The following Board Members were absent: Coalgate Fire Department EMS, Mary Hurley Hospital and McAlester Regional Health Center. See the attached attendance sheet for General Members

IV. Approval of Minutes – August 13th, 2020 – Secretary Korey Langston

A motion to approve the August 13th, 2020 minutes was made by Chris Meeks and seconded by Gerrick Johnson. There was no discussion and the motion passed 15-0.

V. Reports/Updates

A. Emergency Systems Quarterly Activity Report – Dean Henke

Dean Henke introduced Katrina Warden as the new Special Projects Coordinator and noted that staff will be moving to the new Oklahoma Commons Building soon. Linda Dockery is the point of contact for Trauma Fund and the new application deadlines handout was not included in the member packet, but will be emailed to members when available. The final list for the data dictionary is completed and was presented at the July 15th Oklahoma State Stroke System Advisory Council meeting. New EMS Rules were signed and went into effect September 11th, 2020. The updated rules are available on the Emergency Systems website. EMS agencies needing a new unit inspections should use the following link to schedule their inspection: https://osdhphs.co1.qualtrics.com/jfe/form/SV_cCIJ6SDD4koTxLT
Oklahoma EMS Information System (OKEMSIS). Xana Howard is the point of contact and there are no trainings scheduled for OKEMSIS. Dr. Yang Wan is the point of contact for the Trauma Registry and there is no training scheduled at this time. EMS Director training is now being conducted virtually; upcoming trainings will be announced as scheduled for early 2021. Oklahoma Trauma Education Program has no classes scheduled at this time. If your agency is in need of an OTEP class contact our department and we can try to schedule one virtually. The Trauma Transfer and Referral Center is up and running. Oklahoma Trauma and Emergency Response Advisory Council met October 7th, 2020 – 1:00pm. Proposed workgroup dates are in your packets.

B. Hospital stroke liaison volunteer. This would be someone from Region 5 hospitals to attend the Oklahoma State Stroke Coordinators And Resource Committee (OSSCAR) and Oklahoma State Stroke Systems Advisory Committee (OSSSAC) meetings – Dean Henke

Mr. Henke shared this topic will be discussed in the business section.

C. **Quality Improvement Committee Quarterly Activity Report – Nate Toews**
Mr. Toews shared that there were 14 case files reviewed in the 3rd quarter and 18 letters were generated to be sent out to the agencies and facilities. They reviewed three responses from the letter that were sent out. There will be a Statewide CQI meeting on December 8th, 2020.

D. **Regional Educational Planning Committee Quarterly Activity Report – Rachael Franklin**
Ms. Franklin shared the only business today was the approval of the 2021 REPC meeting dates.

E. **Regional Medical Response System Quarterly Activity Report- Rachael Franklin**
Ms. Franklin shared that Region 4 and Region 5 RMRS are working together to cut down on multiple calls to hospitals. Ms. Franklin stressed how important the EMResource survey number being reported are since they are being reported to the Governor.

F. **EMS for Children Quarterly Activity Report – Delores Welch**
No Report was given.

VI. Business

A. **Discussion, consideration, possible action, and vote to approve the Region 5 QI Committee's Letter Schedule of Escalation Proposal – Brandee Keele**

B. **Discussion, consideration, possible action, and vote to approve the QI Committee recommendation that the RTAB and QI Committee Chairs draft and send a letter to licensed hospitals and ambulance services regarding the continuous quality improvement process – Brandee Keele**
A motion to approve items A and B was made by Rusty Cole and was seconded by Korey Langston. There was no further discussion and the motion passed 15-0.

C. **Discussion, consideration, possible action, and vote to excuse the absence for International Paper for August 13th, 2020 due to technicalities issues (microphone) – Secretary Korey Langston**
A motion to excuse the absence for International Paper was made by Gerrick Johnson and was seconded by Delbert Gay. There was no discussion and the motion passed 15-0.

D. **Discussion, consideration, possible action, and vote to approve the Rural EMS Stroke Triage Algorithm – Secretary Korey Langston**
A motion to add the Level 3 Oklahoma Stroke Hospital and Level 4 IV Thrombolytic Administering Algorithm and the severity Based Stroke Triage guideline Algorithm for Rural EMS as appendixes to the Region 5 Stroke Plan was made by Ramie Bise and was seconded by Nate Toews. There was no further discussion and the motion passed 15-0.

E. **Discussion, consideration, possible action, and vote to solicit a Hospital Stroke Liaison to attend the OSSSAC and OSSCAR meetings – Dean Henke**
A motion to accept Ramie Bise as the Region 5 Hospital Stroke Liaison was made by Chris Meeks & seconded by Rusty Cole. There was no discussion and the motion passed 15-0.

F. **Discussion, consideration, possible action, and vote on Trauma Plan destination changes – Secretary Korey Langston**
No action was taken on this item.

G. **Discussion, consideration, possible action, and vote for 2021 Committee Membership – Secretary Korey Langston**

H. **Discussion, consideration, possible action, and vote for 2021 RTAB Board – Secretary Korey Langston**

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I. Discussion, consideration, possible action, and vote for 2021 RTAB Officer – Secretary Korey Langston

- **Chair –Pamela Cunningham**
- **Vice Chair – Darrell Spalding**
- **Secretary – Korey Langston**

J. Discussion, consideration, possible action and vote for Dates, Times, and Venues for 2021 Board meetings – Secretary Korey Langston - Meetings to be held at the: Pittsburg County Health Department - 1400 East College - McAlester, Oklahoma 74501

- **February 11th, 2021 – 10:30 am**
- **May 13th, 2021 – 10:30 am**
- **August 12th, 2021 – 10:30 am**
- **November 4th, 2021 – 10:30 am**

A motion to approve items G, H, I, and J was made by Gerrick Johnson and was seconded by Delbert Gay. There was no discussion and the motion passed 15-0.

VII. New Business – Secretary Korey Langston

(For matters not reasonably anticipated 48 hours prior to the meeting)
There was no new business.

VIII. Next Meetings: – Secretary Korey Langston

A. Quality Improvement Committee
November 12th, 2020 – 1:00 pm

B. Oklahoma Trauma and Emergency Response Advisory Council
February 3rd, 2021 – 1:00

C. Regional Education Planning Committee
February 11th, 2021 – 9:30 am

D. Regional Trauma Advisory Board
February 11th, 2021 – 10:30 am

E. Quality Improvement Committee
February 11th, 2021 – 1:00 pm

IX. Adjournment– Secretary Korey Langston

A motion to adjourn was made by Rusty Cole and seconded by Cindy Conley.
The meeting adjourned at 11:21 am.

Approved

_____ _____

Pamela Cunningham – Chair **Date**

5 REGIONAL TRAUMA ADVISORY BOARD

MEMBERS ATTENDANCE November 12th, 2020 TEAM Meeting Format

BOARD MEMBER	REPRESENTATIVE	1Q	2Q	3Q	4Q	YTD
AIR EVAC LIFETEAM 129 - IDABEL	Justin Kinkade James Smith	X		X	X	100
AIR METHODS	Teresa Snell Chris Meeks	X		A	X	67
ALLIANCEHEALTH DURANT	Amy Beckham Jay Cuesta	X		X	X	100
ANTLER (CITY OF) EMS	Delbert Gay Jauquetta Trotter	X		X	X	100
ATOKA COUNTY MEDICAL CENTER	Rusty Cole	X		A	X	67
BRYAN COUNTY EMS	Brian Norton Nate Toews	X		X	X	100
CHOCTAW NATION EMS	Gerrick L Johnson Whitney Stephens	X		X	X	100
CHOCTAW NATION HEALTH SERVICES AUTHORITY	Gerrick L Johnson Whitney Stephens	X		X	X	100
COALGATE FIRE DEPARTMENT EMS	Lance Cartlidge Aaron Blue	A		X	A	33
EASTERN OKLAHOMA MEDICAL CENTER	Ramie Bise Darla Ford	X		A	X	67
EMS OF LEFLORE COUNTY	Keith Lickly	X		X	X	100
MARY HURLEY HOSPITAL	Jessica McDaniel	X		A	A	33
MCALESTER REGIONAL AIRCARE	Korey Langston Nathan Eric Enlow	X		X	X	100
MCALESTER REGIONAL HEALTH CENTER	Pamela Cunningham Terri Murdaugh	X		X	A	67
MCCURTAIN COUNTY EMS	Cindy Conley Wade Patterson	A		X	X	67
MCCURTAIN MEMORIAL HOSPITAL	Sandra Leggett Pam Johnson	X		X	X	100
PAFFORD EMS OF OKLALHOMA (MCALESTER)	Darrell Spalding Nick Pope	X		X	X	100
PUSHMATAHA CO ANTLERS HOSPITAL	Jauquetta Trotter Marion Spalding	X		X	X	100
	QUORUM 10 makes Quorum	Y/N				

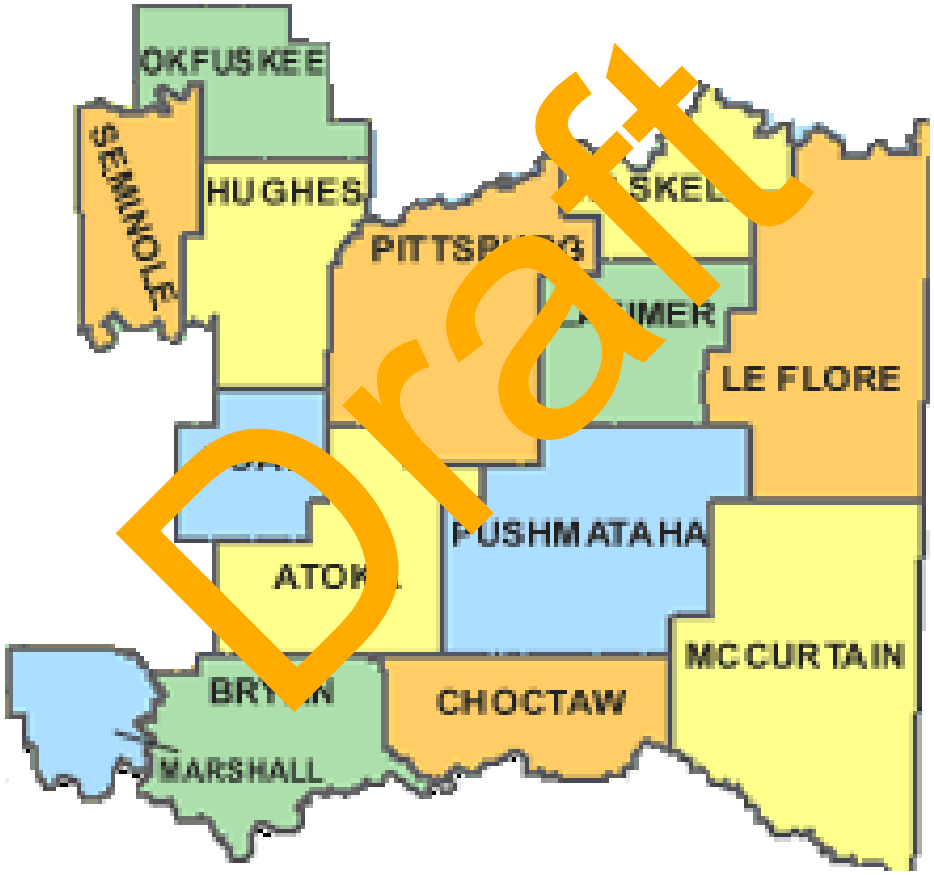
5 REGIONAL TRAUMA ADVISORY BOARD

MEMBERS ATTENDANCE November 12th, 2020 TEAM Meeting Format

GENERAL MEMBER	REPRESENTATIVE	1Q	2Q	3Q	4Q	
AIR EVAC EMS DBA AIR EVAC LIFETEAM 139 - PARIS TX	James Smith	X		X	X	100
AIR EVAC EMS DBA AIR EVAC LIFETEAM 149 FT SMITH AR	Rick Rauser	X		X	X	100
	Jerry Phillips					
AIR EVAC LIFETEAM 022 - PARIS, AR	Michael Perrin	X		X	X	100
AIR EVAC LIFETEAM 065 - SHERMAN, TX	Justin Kinkade	X		X	X	100
	Gloria Solomon					
AIR EVAC LIFETEAM 073- DEQUEEN, AR	Michael Perrin	X		X	X	100
ALLIANCEHEALTH MADILL	Michael Walker	X		A	A	33
	Cyndy Lawson					
ALLIANCEHEALTH SEMINOLE	Michelle Quinalty	X		X	X	100
	Reginald Wood					
ATOKA COUNTY EMS	Randy Bryant	A		A	A	0
	Donna Eagleberger					
CHOCTAW COUNTY AMBULANCE AUTHORITY	Randy Springfield	X		A	A	33
	Tyler Sell					
CHOCTAW MEMORIAL HOSPITAL	Diane Barnett	X		X	A	67
	Darrell Spalding					
COLBERT EMS	Toni Coates	X		A	A	33
CREEK NATION COMMUNITY HOSPITAL	Sara Davis	A		A	A	0
	Jeffrey Dean					
CREEK NATION EMS	Scott Randall	A		A	A	0
	Bradley Smith					
HOLDENVILLE GENERAL HOSPITAL	Kathy Green	X		X	A	67
	Connie Gober					
HUGHES COUNTY EMS	Kristy Lashbrook	X		X	X	100
	Chris Miller					
INTERNATIONAL PAPER EMS	David Bruner	X		A	A	33
	Justin Roach					
KONAWA EMS	James Lampkin	A		A	A	0
	Randy Bryant					
MARSHALL COUNTY EMS DISTRICT	Kenneth Allen	X		A	A	33
	Dash Stanley					
MCALESTER ARMY AMMUNITION PLANT	Chris Morris	A		A	A	0
	Jeff Thompson					
MCALESTER FIRE DEPARTMENT EMS	Benny Brooks	X		X	X	100
	Brett Brewer					
PARIS REGIONAL MEDICAL CENTER	Jynnel Elder	X		X	X	100
	Samantha McDowra					
SEMINOLE FIRE - RESCUE	Merrick Ashby	A		A	A	0
	Bryant Baker					
WELEETKA GRAHAM EMS	Blayne Husong	X		A	A	33
	Kim Brown					
WEWOKA FIRE DEPARTMENT	Kevin Green	A		X	A	33
	Greg Hellman					

Southeast Oklahoma Regional Trauma Plan

Region 5



Developed by the SE RTAB Regional Planning Committee

Plan Approval Dates
Prehospital RTAB: 07/27/2006, 10/13/2011, 02/14/2013
Interfacility RTAB: 06/14/2007, 10/13/2011, 02/14/2013
EMResource RTAB: 08/02/2006, 10/13/2011, 04/24/2014
OTSIDAC: 08/02/2006
OTSIDAC: 08/01/2007
OTSICAC: 04/13/2006
Plan Updated 05-13-2021

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INTRODUCTION

I. GOALS/PURPOSE

The goals of the regional trauma destination protocol are to:

A. Assure trauma patients are transported to the most appropriate hospital with the available resources and capacity to provide care in a timely fashion.

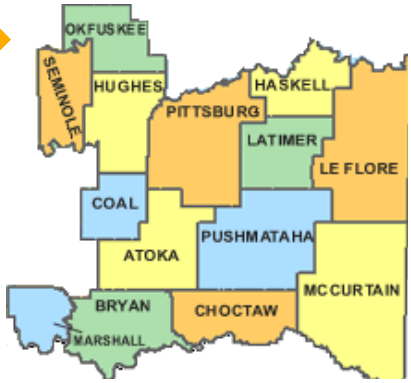
B. Support the Trauma Triage and Transport Guidelines to effectively reduce trauma morbidity and mortality.

C. Match the trauma patient's needs to the facility's resources to ensure optimal and cost effective care is achieved.

D. This plan will not conflict with any rules and/or regulations that are in place now, or may be written in the future. Rules and Regulations changes being considered shall be reviewed by Region 5's Regional Trauma Advisory Board prior to approval.

II. REGION 5 DESCRIPTION

Region 5 consists of Southeastern Oklahoma. Counties included are: Atoka, Bryan, Choctaw, Coal, Hughes, Latimer, Le Flore, Marshall, McCurtain, Okfuskee, Pittsburg, Pushmataha, and Seminole.



Region 5 encompasses 11[illegible] square miles with a population of 273,087. Region 5 is serviced by [illegible] ambulance services, 3 Air Ambulances, 1 Level 3 hospital, 12 Level 4 hospitals, of which, 4 are designated critical access.

III. 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 considers 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.

A. Priority 1 Trauma Patients:

These are patients 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 directly transported to a Level I or Level II 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.

B. 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.

C. Priority 3 Trauma Patients:

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

IV. CATAGORIZATION OF REGION 5 HOSPITALS

A. Level 1: None

B. Level 2: None

C. Level 3: McAlester Regional Health Center (Pittsburg County)
Medical Center of Southeastern Oklahoma (Bryan County)

D. Level 4:

1. General Medical Surgical Hospitals:
   a. Choctaw Memorial Hospital (Choctaw County)
   b. Latimer County General Hospital (Latimer County)
   c. McCurtain Memorial Hospital (McCurtain County)
   d. Pushmataha County-Town of Antlers Hospital (Pushmataha)
   e. Eastern Oklahoma Medical Center, Inc. (Le Flore County)
2. Critical Access Hospitals:
   a. Atoka County Medical Center (Atoka County)
   b. Holdenville General Hospital (Hughes County)
   c. Mary Hurley Hospital (Coal County)
   d. Seminole Medical Center (Seminole County)
   e. Integris Marshall Memorial Hospital (Marshall County)

E. Psychiatric Hospitals:

1. Carl Albert Community Health Center (Pittsburg County)
2. McCurtain Memorial Hospital-Geriatric only (McCurtain County)

F. Rehabilitation

1. Rehabilitation Hospitals:
   Lane Frost Health and Rehabilitation Center
2. General Medical Surgical Hospitals with Inpatient Rehabilitation
   McAlester Regional Health Center (Pittsburg County)

G. General Medical Surgical or Critical Access Hospitals with Swing Beds:

1. Atoka County Medical Center
2. Choctaw Memorial Hospital
3. Creek Nation Community Hospital (Okfuskee County)
4. Eastern Oklahoma Medical Center
5. Latimer County General Hospital
6. Mary Hurley Hospital
7. Seminole Medical Center

V. DESCRIPTION OF EMS SERVICES

Region 5 contains 25 licensed ambulance services. 3 [illegible] services licensed at the Paramedic level, with 22 licensed ground services.

A. Atoka County:

1 Intermediate Level Service covers 978 sq[illegible]re mi[illegible] with 2 [illegible]utine units and 4 total units.

B. Bryan County:

2 Basic, 1 Intermediate, and 1 Spe[illegible]y Care S[illegible]vice [illegible]over 909 square miles with 5 routine units and 10 total units. S[illegible]ialty Ca[illegible] licensed Services cannot function as pre-hospital units unless a disast[illegible]has bee[illegible]eclare

C. Choctaw County:

1 Intermediate Servi[illegible]nd 1 Helico[illegible]er Service licensed at the Paramedic Level cover 774 square miles with 2 rou[illegible]e units [illegible]d 3 total units, plus one helicopter.

D. Coal County:

1 Basic Level Service covers 518 square miles with 1 routine unit and 3 total units.

E. Hughes County:

1 Intermediate Level Service covers 807 square miles with 2 routine units and 4 total units.

F. Latimer County:

1 Basic Level Service and 1 Specialty Care Level Service cover 722 square miles with 3 routine units and 4 total units. Specialty Care Licensed Services cannot function as pre-hospital units unless a disaster has been declared.

G. Le Flore County:
1 Intermediate Level Service covers 1,586 square miles with 5 routine units and 8 total units.

H. Marshall County:
1 Intermediate Level Service covers 371 square miles with 1 routine unit and 3 total units.

I. McCurtain County:
1 Paramedic Level Service and 1 Basic Level Service cover 1,852 square miles with 3 routine units and 7 total units.

J. Okfuskee County:
1 Intermediate Level Service and 1 Basic Level Service cover 625 square miles with 3 routine units and 3 total units.

K. Pittsburg County:
3 Basic Level Services, 1 Intermediate Level Servi plus helicopter service licensed at the Paramedic level cover 1,306 square miles with 9 ro e units d 9 total units, plus one helicopter.

L. Pushmataha County:
1 Intermediate Level Service and 1 Basic L vel Se ic over 1,397 square miles with 3 routine units and 4 total units.

M. Seminole County:
2 Basic Level Service 1 I medic Level Service cover 632 square miles with 4 routine units and 8 otal units. M Flight o has a sub-station in Seminole County, under licensure from a her region.

VI. TRAUMA TRANSFER CENT

The purpose of the Trauma T sfe nd Referral Centers is to ensure that trauma patients transported, or transferred into gion 7 or Region 8 are transported, or transferred to facilities that provides the appropriate level of care, based on the clinical need of the patient, in a timely fashion, with specific attention focused on preserving the highest level of care for major trauma patient.

All ambulance services outside of Region 7 or Region 8 are required to call into the appropriate center 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 5 RTAB and Committees for Quality Improvement purposes.

PRE-HOSPITAL COMPONENT

I. PROCEDURE FOR SELECTION OF HOSPITAL DESTINATION

It is recognized that some patients have needs that will only be met at specific destination hospitals. Therefore, a trauma patient will often benefit from transport directly to the closest facility with the capability and capacity to provide definitive trauma care, rather than the closest geographically located, or patient-preferred hospital. Patient/family request will be considered. However, EMS providers will use these protocols, based entirely on the best medical interest of the patient, to determine the appropriate destination. Rapid, pre-hospital recognition and appropriate triage of trauma patients, utilizing the Oklahoma Trauma Triage and Transport Guidelines, is essential in determining the appropriate hospital destination for Priority 1, 2, and 3 patients.

A. Unstable patient criteria: these patients will be taken to the facility located closest to the event:

1. Unable to obtain/maintain patent airway
2. Deteriorating vitals, indicating hemodynamic compromise as defined in the Oklahoma Trauma Triage Algorithm.
3. Cardiac arrest

B. General Statements Regarding Trauma Patient Destination

1. Priority 1 Patients

a. Due to the absence of Level I or II Trauma Centers in Region 5, all priority 1 patients should be considered for air transport, if feasible. In situations where air transport is not feasible and in the absence of unstable patient criteria, transport will be to nearest Level III facility.

b. BLS agencies will request ALS intercept for all Priority 1 patients and for Priority 2 patients, as indicated by patient condition.

c. ALS intercept should be performed enroute to the closest facility, DO NOT DELAY TRANSPORT to wait for the ALS assist.

2. Priority 2 Patients

Priority 2 patients should be transported to the nearest Level III facility. Southern Le Flore, Eastern Pushmataha, and Northern McCurtain Counties may need to consider rendezvous with ALS, or helicopter for Priority 2 patients, due to the lack of Level III facilities in that area.

3. Priority 3 Patients

Priority 3 patients will be transported by ground to the closest appropriate facility. Patient choice will be considered if the EMS ground resource exists without jeopardizing coverage of the service area.

Burn patients in Region 5:

For Adult and Pediatric burn patients refer to the Oklahoma State Model Trauma Triage and Destination Model for appropriate destination and triage. (Appendix A) Due to time and distance, certain counties in Region 5 may deliver Adult or Pediatric burn patients' to Dallas/Ft. Worth Trauma Centers, Parkland Medical Center or Sherman Memorial Hospital.

Trauma Patient Destinations by County:

1. **ATOKA COUNTY:**
   a. Priority 1 patients west of Hwy 69/75 should be sent to OU Medical Center. Priority 1 patients east of Hwy 69/75 should be sent to Tulsa.
   b. Priority 2 patients from Atoka north should be taken or sent to McAlester Regional.
   c. Priority 2 patients south of Atoka should be taken or sent to Denison/Sherman.

2. **BRYAN COUNTY:**
   a. Priority 1 patients should be sent to Dallas/Ft. Worth Trauma Centers.
   b. Priority 2 trauma patients should be sent to the closest appropriate destination, based upon current capability and capacity based on available resources.
   c. Due to time and distance, level 3 classified Trauma Centers in Texas should be considered.

3. **CHOCTAW COUNTY:**
   a. Priority 1 patients should be sent to Dallas/Ft. Worth Trauma Centers, Oklahoma City or Tulsa via use of the TReC
   b. Priority 2 patients should be taken or sent to whichever is closest: Southeast Oklahoma Medical Center, Parkland Regional Medical Center, or Longview Texas.

4. **COAL COUNTY:**
   a. Priority 1 patients should be sent to OU Medical Center.
   b. Priority 2 patients east of Hwy 75 should be taken or sent to McAlester.
   c. Priority 2 patients west of Hwy 75 should be taken or sent to Valley View in Ada.

5. **HUGHES COUNTY:**
   a. Priority 1 patients should be sent to OU Medical Center.
   b. Priority 2 patients east of Hwy 75/270 should be taken or sent to McAlester Regional.
   c. Priority 2 patients south of the Canadian River and west of Hwy 75 should be taken or sent to Valley View in Ada.
   d. Priority 2 patients north of the Canadian River and west of Hwy 75/270 should be taken or sent to Seminole.

6. **LATIMER COUNTY:**
   a. Priority 1 trauma patients should be taken or sent to the closest appropriate trauma center in either Oklahoma or Arkansas based on the needs of the patient. Patients should be transported to St John Medical Center or Saint Francis Hospital in Tulsa, based on the call rotation. In Arkansas, patients should be transported to either Mercy Medical Center or Sparks Regional Medical Center in Ft. Smith.
   b. Priority 2 trauma patients should be sent to the closest appropriate destination, based upon current capability and capacity of available resources.
   c. Priority 2 patients south of Veteran's Colony and east of Hwy 2 should be taken to the closest level III Trauma Center.

7. **LE FLORE COUNTY:**
   a. Priority 1 trauma patients should be taken or sent to the closest appropriate trauma center in either Oklahoma or Arkansas based on the needs of the patient. Patients should be transported to St John Medical Center or Saint Francis Hospital in Tulsa, based on the call rotation. In Arkansas, patients should be transported to either Mercy Medical Center or Sparks Regional Medical Center in Ft. Smith.
   b. Priority 2 trauma patients should be sent to the closest appropriate destination, based upon current capability and capacity based on available resources.

8. **MARSHALL COUNTY:**
   a. Priority 1 patients should be sent to Dallas/Ft. Worth.
   b. Priority 2 patients should be taken or sent to Ardmore.

9. **MCCURTAIN COUNTY:**
   a. Priority 1 patients should be sent to Tyler.
   b. Priority 2 patients should be taken to Good Shepherd Hospital, Longview, TX or McCurtain Memorial Hospital if immediate stabilization is necessary.

10. **OKFUSKEE COUNTY:**
    a. Priority 1 patients should be sent or taken to OU Medical Center.
    b. Priority 2 patients should be taken or sent to Shawnee.

11. **PITTSBURG COUNTY:**
    a. Priority 1 patients should be sent or taken to Tulsa Trauma Centers.
    b. Priority 2 patients should be taken to McAlester Regional.

12. **PUSHMATAHA COUNTY:**
    a. Priority 1 patients should be sent to whichever is closest, the Tulsa Trauma Center, St. Edward Mercy Medical Center in Ft. Smith or Sparks Regional Medical Center in Ft. Smith.
    b. Priority 2 trauma patients should be sent to the closest appropriate destination based upon current capability and capacity based on available resources.

13. **SEMINOLE COUNTY:**
    a. Priority 1 patients should be sent to OU Medical Center.
    b. Priority 2 trauma patients should be sent to the closest appropriate destination, based upon current capability and capacity based on available resources.
    c. Priority 2 patients south of Hwy 59 should be sent or taken to Valley View in Ada.

II. PROCEDURE FOR MONITORING HOSPITAL STATUS AND CAPABILITY

EMResource™ - The OSDH will generate reports from the EMResource™ for use in monitoring hospital status related to destination. These reports will be provided periodically by OSDH and made available to the Region 5 QI Committee. Any problems identified through review of this data will be addressed by the QI Committee directly with the provider, and if necessary, through referral to the appropriate state level committee.

III. HELICOPTER UTILIZATION PROTOCOL (Radio frequency 155.490)

Purpose - Appropriate utilization of air ambulance resources by Region 5 providers.

A. 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 an air ambulance should not be used:

1. 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.
2. Priority 3 patients shall be transported by ground ambulance.
3. Cardiac arrest without return of spontaneous circulation in the field.

B. "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 distances 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 35 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 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.

F. 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 of the patients' condition warrants it.

1. 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 a hospital determines that a trauma patient is to be transferred by helicopter the transferring hospital should notify the helicopter service 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 in an effort to expedite transfer of the patient.

2. EMS Activation:
   When a dispatch center or ground ambulance service receives a call that meets the following criteria, it is recommended that their air ambulance be "early activated" or placed on ground standby:
   a. Significant mechanism of injury as defined in the Trauma Triage Algorithm
   b. Multiple patients
   c. "Gut Feeling" from the responding crew

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

G. 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.

H. Training:

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

I. 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 B.

IV. DIVERSION

A. Guidelines to determine the possible need for Emergency Department divert are:
   1. The Emergency Department cannot handle additional emergencies based on the lack of professional personnel.
   2. Maximum capacity of the Emergency department has been met.
   3. The hospital does not have the capability to care for the patient.

B. Notification of Emergency Department diversion status:
   1. A record shall be maintained documenting the date, time started, and times ended of each interval of divert status.
   2. Each hospital shall notify each entity providing emergency medical services, such as ambulance services and hospitals in the catchment area of the divert status.
   3. The EMResource™ will be updated to show current information.

INTER-FACILITY TRAUMA DESTINATION COMPONENT

I. GENERAL PRINCIPLES

The vast majority of injured patients receive their trauma 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 recognition 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.

II. TRAUMA PROGRAM

A well-designed hospital trauma program, utilizing a team approach is crucial for providing optimal care to all trauma patients in Region 5.

All hospitals in Region 5 must establish criteria for the activation of their respective trauma programs and be clearly defined in the institutions policies and procedures. The following are intended as guidelines for each hospital.

A. The hospital must have a written policy for notification and mobilization of an organized trauma team (Level III) or to the extent that one is available (Level IV). The Trauma Team may vary in size and composition when responding to the trauma activation.

B. Each hospital shall have an established trauma program and designated trauma team that is appropriate for that facilities level of care. The trauma program must include 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.

Compliance with the above will be evidenced by:

1. Board of Director's and medical staff letter of commitment
2. Written policies, procedures and guidelines for care of the trauma patient
3. A defined Trauma Team with written roles and responsibilities
4. Appointed Trauma Medical Director with a written job description
5. A written Trauma Performance Improvement Plan
6. Appointed Trauma Program Manager with a written job description
7. Documentation of trauma center representative's attendance at the Regional Trauma Advisory Committee meetings

III. TRAUMA TEAM COMPOSITION

A. Trauma Program Medical Director

1. Level III Facility

The medical director is a board-certified surgeon who leads the multidisciplinary activities of the trauma program. We recommend the director be currently certified by the American College of Surgeons Advanced Trauma Life Support (ATLS), maintain personal involvement in care of the injured, maintain education in trauma care, and maintain involvement in professional organizations. The trauma director, or his designee, must be actively involved with the trauma system development at the community, regional and state level. The medical director will be responsible for:

a. Developing a performance improvement process.
b. Recommending appointment and removal of physicians from the trauma team,
c. Working with nursing administration to support the nursing needs of the trauma patient, and
d. Developing treatment protocols for the trauma patients.

2. Level IV Facility: The medical director is a physician who leads the multidisciplinary activities of the trauma program. We recommend the physician director have current certification in ATLS. The physician director is responsible for:

a. Overseeing the implementation of a trauma specific performance improvement process for the facility,
b. Assisting in the development of standards of care, and
c. Assuring appropriate policies and procedures are in place for the safe resuscitation and transfer trauma patients.

B. Trauma Coordinator

1. Level III facility: Should have an emergency department registered nurse and/or licensed medical professional qualified in the care of the trauma patient, working in the role of a Trauma Coordinator (TC). Working in conjunction with the medical director, the Trauma Coordinator is responsible for organization of the trauma program and all systems necessary for the multidisciplinary approach throughout the continuum of trauma care. He/she is responsible for working with the trauma team to assure optimal patient care.

2. Level IV facility: Should have a licensed medical professional qualified in the care of the trauma patient to act as the Trauma Coordinator. Specifically, this person is responsible, with the medical director, for coordinating optimal patient care for all trauma victims.

C. Composition of the Trauma Team

The physician leader or mid-level practitioner (PA, ARNP) on the team should be ATLS certified and is responsible for directing all phases of the resuscitation in compliance with accepted standards of care.

1. Level III facility

a. Physician, board certified surgeon
b. Trauma Specialists
c. Emergency nursing staff
d. Laboratory & Radiology Technician
e. Ancillary Support Staff – Respiratory therapy, blood bank

The Level III trauma center must have an Emergency Department (ER) staffed so that trauma patients are assured immediate and appropriate initial care. An ER physician deemed competent in the care of the trauma patient shall be available 24 hours/day. This ER physician must be in- house 24 hours/day, immediately available at all times, and capable of evaluating trauma patients and provide initial resuscitation. The ER physician will provide team leadership and care for the trauma patient until the surgeon or other specialist arrives to take over care. The ER must have established standards and procedures to ensure immediate and appropriate care for the adult as well as the pediatric trauma patient.

The Level III trauma center must have published on-call schedules and have the following medical specialties immediately available 24 hours a day to the injured patient: General Surgery, Anesthesia and other medical specialties that may be available in the local area to assist with care of the trauma patient.

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.

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. Clinical laboratory services shall have the following services available in-house 24 hours per day: Blood typing and cross matching capabilities, access to sufficient quantities of blood and blood products, microbiology, blood gas and pH determination, alcohol and drug screening and coagulation studies.

2. Level IV facility

a. Physician or Mid-level practitioner
b. Emergency nursing staff
c. Laboratory Technician
d. Ancillary Support Staff

The ER of the Level IV trauma center must be staffed so trauma patients are assured immediate and appropriate initial care. A system must be developed and in place to assure early notification of the on-call practitioner. Adequate number of nurses must be available in-house 24 hours/day to ensure adequate care of the trauma patient.

IV. TRAUMA TEAM ACTIVATION CRITERIA

A. FULL ACTIVATION: In either a Level III or Level IV facility, immediate full activation of the trauma team should occur when any Priority I trauma patient, as defined in the Adult and Pediatric Inter-facility Triage, Transport and Transfer Guidelines (Appendix D), presents to the Emergency Department.

B. PARTIAL ACTIVATION: In a Level III or Level IV facility, immediate partial activation of the trauma team should occur when any Priority II or III trauma patient, as defined in the Adult and Pediatric Inter-facility Triage, Transport and Transfer Guidelines (Appendix D), presents to the Emergency Department. After triage and the medical screening examination by the QMP, the patient's injuries should be treated within the accepted standards of trauma care and if necessary full activation of the team may occur.

V. INTERFACILITY TRANSFER GUIDELINES

In general, the 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 transfer to a higher level of care institution. 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 will rest with the physician attending the trauma patient.

In general, the Level IV Trauma Center is a licensed, small, rural facility with a commitment to the resuscitation of the trauma patient and written transfer protocols in place to assure those patients needing a higher level of care are transferred appropriately. These facilities may be staffed by a Physician, or a mid-level practitioner (i.e. ARNP or PA), or Registered Nurse. The major trauma patient in this facility will be stabilized and transported to the most appropriate facility for the patients ongoing care needs.

A. Stabilization Criteria

Regardless of facility trauma level the trauma team will evaluate ALL trauma patients presenting to the hospital and emergency medical conditions will be identified, prioritized, treated and stabilized within the facilities capability and capacity.

In an effort to optimize patient care and deliver the trauma patient to 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 screening 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 CT or X rays are not necessary for a patient to be deemed Priority I or Priority 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.
2. The patient will be stabilized and then admitted to that facility (Priority II that is not time-sensitive or Priority III),

3. The patient will be stabilized and transferred to their facility of choice (Priority II that is not time-sensitive), or
4. The patient will be treated and discharged to home with appropriate instruction for their injuries (Priority III trauma).

B. Destination Guidelines

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 taken into account 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 I, II and III trauma patient hospital destinations.

It is recommended that the transfer of Priority I, II and Priority 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 a time-sensitive matter.

C. All Patients

Those patients with a traumatic arrest or the inability to secure an airway should be transported to the closest facility to the traumatic event.

It should be noted that any priority I and II trauma patient that needs immediate stabilization should be transported to the most appropriate facility in or out of state, in an effort to expedite care of the trauma patient.

Patient preference as well as the time and distance factor to definitive care will be considered for most Priority II and III trauma patients.

1. **<u>Burns</u>**:
   For Adult and Pediatric burn patients refer to the Oklahoma State Model Trauma Triage and Destination Model for appropriate destination and triage. (Appendix A)
2. **<u>Neurological Trauma Patients</u>**
   a. Priority I adult and pediatric trauma patients should be transported directly to the appropriate Level I or II facility. In-state transfers can be facilitated via use of the Trauma Transfer center.
   b. Priority II adult trauma patients should be transported to the appropriate facility in Region 7 or 8, based on the time/distance factor with preference given to patient desire.
   c. Priority II pediatric trauma patients should be transported to the most appropriate facility using the Trauma Transfer Center.
   d. Priority III adult and pediatric trauma patients should be transported to the closest facility for stabilization before transfer to the appropriate facility.

VI. DIVERSION

A. Indicators of a possible need for Emergency Department divert are as follows:

1. The Emergency Department cannot handle additional emergencies based on the lack of professional personnel.
2. Maximum capacity of the Emergency department has been met.
3. The hospital does not have the capability to care for the patient. B.

Notification of Emergency Department diversion status:

1. A record shall be maintained documenting the date, time started, and times ended of each interval of divert status.
2. Each hospital shall notify each entity providing emergency medical services, such as ambulance services and hospitals in the attachment area of the divert status.
3. EMResource™ will be updated regularly to show current information.

COMMUNICATION COMPONENT

EMResource™ Usage

I. 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 in 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™'s ability to serve this function is limited by the use of the system by providers.

II. Usage Requirements

Within Region 5 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 this area of 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.
   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 hospital 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 routine service or fueling.
   c. Not Available – the aeromedical resource is currently unable to respond in a timely manner.
   d. 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.

C. System Alerts

1. Providers in Region 5 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 specifically for EMResource™ use 24 hours a day.
2. 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.

D. Data Reporting

Providers in Region 5 are required to participate in reporting data supported by the EMResource™ application. This reporting requirement includes but is not limited to:

1. Hospital Daily Report of bed capacity and ED volume;
2. EMS Daily Report of resources and volume;

III. Monitoring

Appropriate use of EMResource™ will be enforced in the re[illegible] through the CQI process.

A. The CQI committee will routinely review reports fr[illegible] the Tra[illegible]a Transfer and Referral Center on diversion of patients and compare the patie[illegible] diversion list with the list of facility diversion hours generated from the EMRes[illegible]™

B. QI Indicators

QI indicators for use statewide have bee[illegible] dev[illegible]oped [illegible] the statewide CQI Subcommittee for use in monitoring hospital stat[illegible] and app[illegible]priat[illegible]ness of destination. The Region 5 CQI Committee should moni[illegible] these i[illegible]cators. Issues identified through review of the indicators should b[illegible] addresse[illegible]y the [illegible] Committee directly with the provider and if necessary throu[illegible] referral to the [illegible]ppropri[illegible]ate state level committee.

Every licensed ho[illegible]al and ambul[illegible]ce service is to participate with the Continuous Quality Improvement proces[illegible] articipati[illegible] in the process will be demonstrated by meaningful responses to committee [illegible]re[illegible]ondence, and with respectful consideration being given to the recommendations made by the committee. Those who do not participate with the CQI committee process will be subject to the schedule of escalation outlined in Appendix D.

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 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.

IV. 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 5 supports use of this tool through adoption of these requirements.

Appendix A

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. A current patient identification criterion does not provide 100% percent sensitivity and specificity for detecting injury. As a result, trauma systems are designed to over-triage patients in order not to 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/Minutes
Or <20 in Infant < 1 year
Altered Mentation- of trauma etiology- GCS <14

Anatomical Injury Criteria

Penetrating injury of head, neck, chest, abdomen or extremities proximal to elbow or 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 I 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 shows 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 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 stage renal disease on 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 level fall with extremity or hip fracture.

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

INABILITY TO SECURE AIRWAY
TRAUMATIC ARREST

YES → **GO DIRECTLY TO NEAREST APPROPRIATE FACILITY**

PRIORITY I

PHYSIOLOGICAL COMPROMISE CRITERIA

- Hemodynamic Compromise[1]-Systolic BP < 90mmHg
  Or signs that should be considered include:
  - Sustained tachycardia
  - Cool diaphoretic skin
- Respiratory Compromise[2]- RR < 10 or > 29 breaths/minute
  or < 20 in infant < 1 yr
- Altered Mentation of trauma etiology[3]- GCS < 14

YES → **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 & distance constraints. If conditions do not permit air transp[illegible] then consider ALS rendezvous. Stabilization [illegible]y occ[illegible]ther in the field or at the nearest appropriate [illegible]cilit[illegible]

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

YES → **INITIATE TRAUMA TREATMENT PROTOCOL**

C[illegible]ation of b[illegible]10% or significant burns involvi[illegible]face, airway, hands, feet or genitalia *without* [illegible]gnificant[illegible]uma transport to regional Burn Center.
[illegible]s >10% *with* significant trauma transport to trauma [illegible]ent[illegible]

NO ↓

PR[illegible]Y II

RISK OF SERIOUS INJURY - SINGLE SYSTEM INJURY

Patients with potentially time sensitive injuries due to a[illegible]gy event (positive mechanism of injury) but currently wit[illegible] physiol[illegible]l abnormalities or significant anatomical injur[illegible] patients with l[illegible] severe single system in[illegible]

Ejection (partial or complete)of the patie[illegible]n an enclosed vehicl
Auto/pedestrian, auto/bike, or motorcycle cra[illegible]ith significant impact (>20 mph) and patient thrown or run ov[illegible]vehicle
Falls greater than 20 feet or 2-3 times height of pat[illegible]
Significant assault or altercations
High risk auto crash[5]
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.

YES → **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 ↓

PRIORITY III

CONSIDER[6] -Co-morbid factors
-Gestalt-EMS clinical judgment

NO → **TRANSPORT** to either the closest Level IV Trauma Center or higher depending on location according to the Regional Trauma Plan or the facility of the patient's choice

Approved : OTSIDAC 02/01/06
Revised: OTSIDAC 08/01/07; 02/06/08, 08/06/08; 02/03/10
Clarification Revision by MAC: 11/19/08

1. In addition to hypotension: pallor, tachycardia or diaphoresis may be early signs of hypovolemia
2. Tachypnia (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 protection 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 man 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[1]-Systolic BP < 90mmHg or other signs such as:
- o Sustained tachycardia
- o Cool diaphoretic skin

Respiratory Compromise[2]- RR < 10 or > 29 breaths/minute or < 20 in infant < 1 yr

Altered Mentation of trauma etiology [3]- GCS < 14

PRIORITY I

YES →

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 & distance constraints. If conditions do not permit air transport consider ALS rendezvous. Stabilization may occur either in the field or at the nearest appropriate facility.

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.

NO ↓

ANATOMICAL INJURY

YES →

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 Hillcrest Burn Center or OUMC Children's Hospital. 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 pelvis fracture

Tender and/or distended abdomen

Crushed, degloved, or mangled extremity

Pediatric Trauma Score ≤ 5

NO ↓

PRIORITY II

RISK OF SERIOUS INJURY - SINGLE SYSTEM INJURY

Patients with potentially time sensitive injuries due to the mechanism of event (positive mechanism of injury) but currently without physiologic abnormalities or significant anatomical injuries. Includes patients with a less severe single system injury.

Ejection of patient from enclosed vehicle. Auto/pedestrian, auto/bike, or motorcycle crash with significant impact and patient thrown or run over by vehicle Significant fall >10 feet or 2-3 times height of patient Significant assault or altercations

High risk auto crash[5]

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.

YES →

INITIATE TRAUMA TREATMENT PROTOCOL

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

Pediatric Trauma Score 6-8

NO ↓

PRIORITY III

CONSIDER[6] -Co-morbid factors
-Gestalt-EMS clinical judgment

YES →

NO →

TRANSPORT to either the closest designated acute care facility according to the Regional Trauma Plan or the facility of the patient's choice

Pediatric Trauma Score 9-12

Approved : OTSIDAC 02/01/06
Revised: OTSIDAC 08/01/07; 02/06/08, 08/06/08; 02/03/10
Clarification Revision by MAC: 11/19/08

1. In addition to hypotension: pallor, tachycardia or diaphoresis may be early signs of hypovolemia
2. Tachypnia (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 protection 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 man 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)

Approved : OTSIDAC 02/01/06
Revised: OTSIDAC 08/01/07; 02/06/08, 08/06/08; 02/03/10
Clarification Revision by MAC: 11/19/08

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 mm Hg Radial	50-90 mm Hg Femoral/Carotid	< 50 mm Hg 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 1 = 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_2 administration
# Invasive techniques required for control (e.g. intubation).
† Responds to voice, pain, or temporary loss of consciousness.
‡ Abrasions or lacerations

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Clarification Revision by MAC: 11/19/08

PRIORITY I

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

Hemodynamic Instability
- Adult SBP consistently <90 following 2 ... of crystalloid
- Respiratory distress with rate <10 or ...

Major Extremity Injury
- Fracture/dislocation with loss of distal pul...
- Amputation of extremity proximal to wrist or ...
- Pelvic fractures with hemodynamic instability
- Two or more long bone fracture sites
- Major vascular injuries documented by arteriogram ***or*** ... 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

YES → ...itiate i... ...nal Trauma Treatment Protocol if ...finitive s... ...are and critical care n... ...toring are ...available

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

NO → Proceed to Priority II Interfacility Transfer Criteria

ADULT INTERFACILITY
TRIAGE AND TRANSFER GUIDELINES
Oklahoma Model Trauma Triage Algorithm

PRIORITY II

Abdominal/Pelvic Injuries
- Stable pelvic fractures
- Hemodynamically stable isolated abdominal trauma
  - o diffuse abdominal pain/tenderness
  - o seat belt contusions
  - o 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 compromi
- Unilateral pulmonary contusion without respiratory compromise

Comorbid
- Age <5 or > 55
- Known cardiac, respiratory or metabolic disease
- Pregnancy
- Immunosupression
- 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 rovasc deficits
- Unstable joint (ligament) injuries witho urovascular defici
- Degloving injuries without evidence mb threatening injury

Mechanism
- Ejection of patient from enclosed vehicle
- Adult auto/pedestrian, auto/bike, or motorcycl h with sign nt 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[4], 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

YES → Perform complete trauma evaluation and appropriate serial observations. Consider admission if condition remains stable.

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

YES → 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.

NO → 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.

Approved : OTSIDAC 02/01/06
Revised: OTSIDAC 08/01/07; 02/06/08, 08/06/08; 02/03/10
Clarification Revision by MAC: 11/19/08

Pediatric Interfacility Triage and Transfer Guidelines Oklahoma Model Triage Algorithm

PRIORITY I

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 > 3

Major Extremity Injury

- Fracture/dislocation with loss of distal p
- Amputation of extremity proximal to wrist kle
- Pelvic fractures with hemodynamic instability
- Two or more long bone fracture sites
- Major vascular injuries documented by arteriogram 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 Hillcrest Burn Center or OUMC Children's Hospital. 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

YES

Ini nternal Trauma Treatment Protocol if finiti rgical care and critical care onitoring available

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

NO

Proceed to Priority II Interfacility Transfer Criteria

Approved : OTSIDAC 02/01/06
Revised: OTSIDAC 08/01/07; 02/06/08, 08/06/08; 02/03/10
Clarification Revision by MAC: 11/19/08

Pediatric Interfacility Triage and Transfer Guidelines Oklahoma Model Triage Algorithm

PRIORITY II

Abdominal/Pelvic Injuries
- Stable pelvic fractures
- Hemodynamically stable isolated abdominal trauma
  - o diffuse abdominal pain/tenderness
  - o seat belt contusions
  - o 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
- Known cardiac, respiratory or metabolic disease
- Pregnancy
- Immunosupression
- 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
- Auto/pedestrian, auto/bike, or motor vehicle 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[4], 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

YES → Perform complete trauma evaluation and appropriate serial observations. Consider admission if condition remains stable.

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

YES → 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.

NO → 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.

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Revised: OTSIDAC 08/01/07; 02/06/08, 08/06/08; 02/03/10
Clarification Revision by MAC: 11/19/08

Appendix B

EMTALA Clarification

I. **EMTALA Regarding Helipad Usage**

There have been some concerns of possible EMTALA violations when using a hospital 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 contracting 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 individuals 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 EMS 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 individuals behalf for the examination or treatment of an EMC.

II. **<u>EMTALA EMERGENCY DEPARTMENT DEFINITIONS & DESCRIPTIONS</u>**

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

<u>Emergency Medical Treatment and Active Labor Act (" EMTALA")</u> 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:

A. 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:
   1. 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;
   2. Serious impairment of bodily functions, or
   3. Serious dysfunction of any bodily organ or part;

B. With respect to a pregnant woman who is having contractions:
   1. That there is inadequate time to effect a safe transfer to another hospital before delivery; or
   2. That transfer may pose a threat to the health or safety of the woman or the unborn child.

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 patient.

Capability of a medical facility or main hospital provider means the physical space, equipment, supplies, and services (i.e. trauma care, surgery, intensive care, pediatrics, obstetrics, burn unit, neonatal unit, or psychiatric including ancillary services available at the hospital. The Capabilities of the hospital's staff mean the level of care that the hospitals 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. Under no circumstances will an Emergency Department patient who has an emergency medical condition 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.

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.

- **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 and premises. An individual in a non-hospital owned ambulance on hospital property or premises is considered to have come to the hospitals' Emergency Department.

Appendix C

Advanced Life Support Intercept Protocol

ALS INTERCEPT PROTOCOL FOR REGION 5

Purpose:

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

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 advanced life support unit to respond to and/or intercept with an EMS Unit for the purpose of providing an advanced level of patient care. A licensed Intermediate or Paramedic level of care should provide ALS Assist.

ALS Assist/intercept requests 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.

Procedure:

1. 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.
2. The location of the intercept shall be decided as soon as possible.
3. 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.
4. The ALS provider should be licensed at the Intermediate or Paramedic level or an Air Ambulance.
5. BLS and ALS personnel may elect to request air medical support based on the 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.
6. 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.

Plan Approval Dates Updated 5-13-21
Prehospital RTAB: 07/27/2006, 10/13/2011 OTSIDAC: 08/02/2006
Interfacility RTAB: 06/14/2007, 10/13/2011 OTSIDAC: 08/01/2007
EMResource RTAB: 08/02/2006, 10/13/2011 OTSICAC: 04/13/2006

Appendix D

Escalation Process

Letter Schedule of Escalation Proposal

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 upon 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.

Plan Approval Dates Updated 5-13-21
Prehospital RTAB: 07/27/2006, 10/13/2011 OTSIDAC: 08/02/2006
Interfacility RTAB: 06/14/2007, 10/13/2011 OTSIDAC: 08/01/2007
EMResource RTAB: 08/02/2006, 10/13/2011 OTSICAC: 04/13/2006

Tier 4- No response to Tier 3 letter

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

*Make this an OTERAC Chair only duty; letters do not go to OTERAC Meeting

Other accompanying recommendations with language for Trauma Plans and Bylaws:

Every licensed hospital and ambulance service is to participate with the Continuous Quality Improvement process. Participation in the process will be demonstrated by meaningful responses to committee correspondence, and with respect to consideration being given to the recommendations made by the committee.

The RTAB chair shall sign letters to licensed hospitals and ambulance services at the recommendation of the Continuous Quality Improvement Committee for failure to respond to committee correspondence.

A letter will be sent from each Regional Trauma Advisory Board to each of their licensed hospitals and ambulance services outlining the CQI Process and expectation of responses with this schedule of escalation attached.

Child Abuse Recognition

Larissa Hines, MD
Child Abuse Pediatrician and Fostering Hope Pediatrician
Oklahoma Children's Hospital at OU Health
Clinical Assistant Professor
University of Oklahoma Health Sciences Center at OU Health

What is Child Abuse?

The Federal Child Abuse Prevention and Treatment Act (CAPTA), (42 U.S.C.A. §5106g), as amended and reauthorized by the CAPTA Reauthorization Act of 2010, defines child abuse and neglect as, at minimum:

"Any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or an act or failure to act which presents an imminent risk of serious harm."

https://www.childwelfare.gov

Physical Abuse

- Nonaccidental physical injury (ranging from minor bruises to severe fractures or death) that is inflicted by a parent, caregiver, or other person who has responsibility for the child.
- Such injury is considered abuse regardless of whether the caregiver intended to hurt the child.
- Physical discipline, such as spanking or paddling, is not considered abuse as long as it is reasonable and causes no bodily injury to the child.

https://www.childwelfare.gov

Neglect

- Failure of a parent, guardian, or other caregiver to provide for a child's basic needs
  - Physical (e.g., failure to provide necessary food or shelter, or lack of appropriate supervision)
  - Medical (e.g., failure to provide necessary medical or mental health treatment)
  - Educational (e.g., failure to educate a child or attend to special education needs)
  - Emotional (e.g., inattention to a child's emotional needs, failure to provide psychological care, or permitting the child to use alcohol or other drugs)

https://www.childwelfare.gov

Sexual Abuse

- Activities by a parent or caregiver such as fondling a child's genitals, penetration, incest, rape, sodomy, indecent exposure, and exploitation through prostitution or the production of pornographic materials

https://www.childwelfare.gov

Emotional Abuse

- Pattern of behavior that impairs a child's emotional development or sense of self- worth
- May include constant criticism, threats, or rejection, as well as withholding love, support, or guidance
- Often difficult to prove, and therefore, child protective services may not be able to intervene without evidence of harm or mental injury to the child
- Almost always present when other types of maltreatment are identified

https://www.childwelfare.gov

Abandonment

- A child is considered to be abandoned when the parent's identity or whereabouts are unknown, the child has been left alone in circumstances where the child suffers serious harm, or the parent has failed to maintain contact with the child or provide reasonable support for a specified period of time

https://www.childwelfare.gov

Substance Abuse

- Prenatal exposure of a child to harm due to the mother's use of an illegal drug or other substance
- Manufacture of methamphetamine in the presence of a child
- Selling, distributing, or giving illegal drugs or alcohol to a child
- Use of a controlled substance by a caregiver that impairs the caregiver's ability to adequately care for the child

https://www.childwelfare.gov

Epidemiology

- 3.6 million referrals alleging maltreatment to CPS involving 6.6 million children
- 702,000 victims of maltreatment
- 1,580 fatalities
- 9.4 child victims per 1,000 children
- The youngest children are the most vulnerable to death from maltreatment

NCANDS. Child Maltreatment 2014.

Epidemiology

- Neglect is the most common at 75% of cases
- Physical abuse is the second most common
- 17% of cases are physical abuse
- 119,517 victims of physical abuse

NCANDS. Child Maltreatment 2014.

Under Reporting

- The estimated number of victims is actually much higher
- Physical abuse remains under reported (and often under detected)
  - Individual and community variations in what is considered "abuse"
  - Inadequate knowledge and training among professionals in the recognition of abusive injuries
  - Unwillingness to report suspected abuse
  - Professional bias

Duty to Report Child Abuse and Neglect

All professionals in the state of Oklahoma have a duty to report any reasonable suspicion of child maltreatment.

Physical Abuse

Clinical Approach

- Stabilize and resuscitate
- Careful and well documented history is the most critical element of the medical evaluation
  - Using quotes whenever possible
  - Description of the mechanism of injury or injuries
  - Onset and progression of symptoms
  - Child's developmental capabilities

Physical Examination

- Detailed documentation
  - Photographs
  - Body diagrams
- Specific attention to
  - All areas of skin
  - External ears
  - Conjunctiva
  - Frenula

Cutaneous Findings

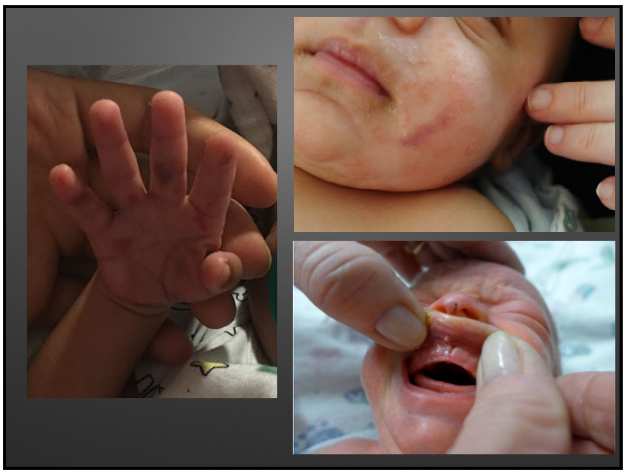
Sentinel Injuries

- Minor injuries, such as a bruise or intraoral injury
- Premobile infant
- Visible or detectable to a caregiver
- Poorly explained and unexpected

Sentinel Injuries

- A sentinel injury preceded severe abuse in 27.5% of cases
- A history of a sentinel injury is rare in infants evaluated for maltreatment and found to not be abused
- All sentinel injuries were observed by a parent
- 42% of the sentinel injuries were known to a medical provider but the infants were not protected from further harm
- Recognition of and appropriate response to sentinel injuries could prevent many cases of child physical abuse

Sheets. Pediatrics 2013;131:701-7.

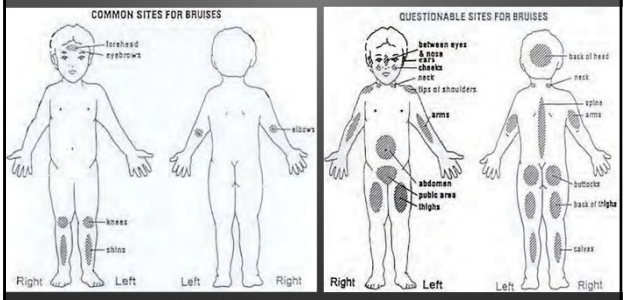


Bruises

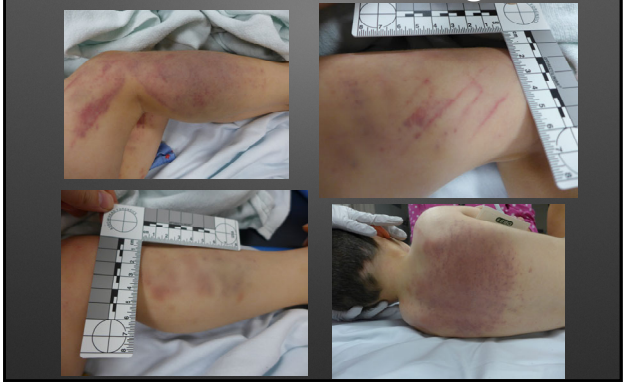
If you don't cruise, you don't bruise

- Bruising in infants who don't pull to a stand or walk are rare
- Bruising increases exponentially once an infant begins to cruise
- Bruising is generally found over bony prominences

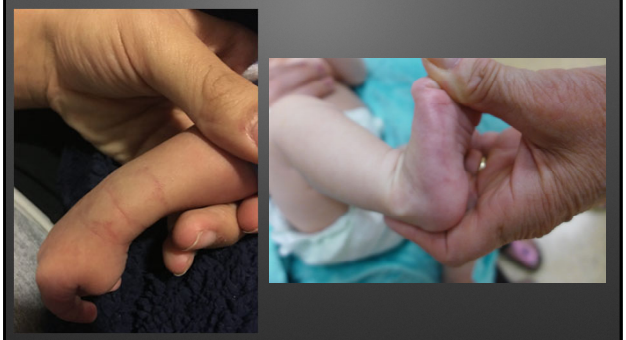
Location



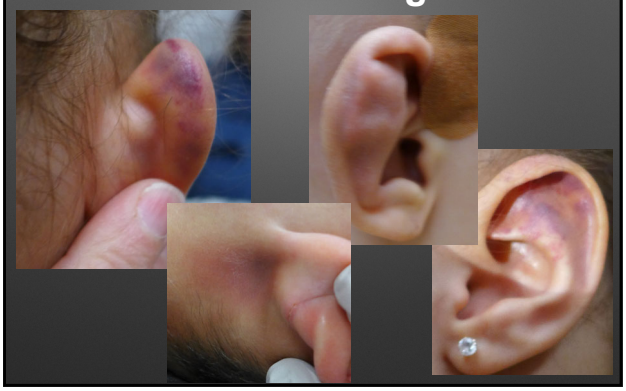
Patterned Bruising



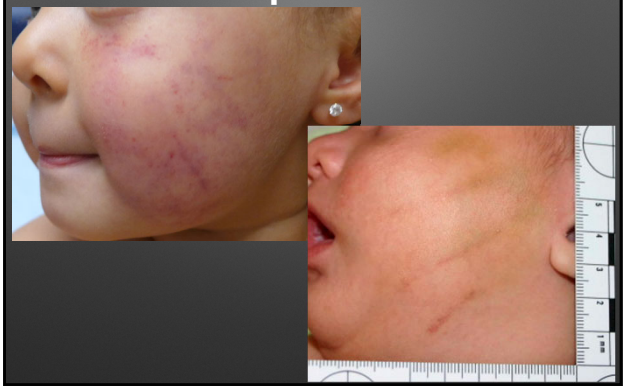
Squeeze Marks



Ear Bruising



Slap Marks



Burns

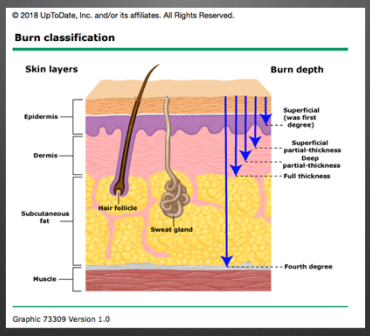
Epidemiology

- Abusive burns account for 11-25% of burns in hospitalized children
- Infants and toddler represent the greatest percentage of cases
- Typically occur in children younger than 6 years
- Mean age of injury between 2-3 years

Burn Classification

- Superficial - Epidermal layer only — 1st degree
- Superficial Partial Thickness - Epidermis and superficial dermis — 2nd degree
- Deep Partial Thickness - Epidermis and deep dermis
- Full Thickness - Epidermis, entire dermis and into underlying subcutaneous tissue — 3rd degree
- Extension to Deep Tissues - Through skin and underlying soft tissues, can involve muscle or bone — 4th degree

Burn Classification



Patterns of Injury Concerning for Abuse

- Large surface area of burn
- Uniform degree of burn injury
- Full-thickness burn
- Presence of delineated burn margins
- Symmetrical burns
- Absence of burn in areas of skin flexion
- Sparing of skin with surrounding burn secondary to contact with cooler surfaces
- Scald injury without splash/drip marks

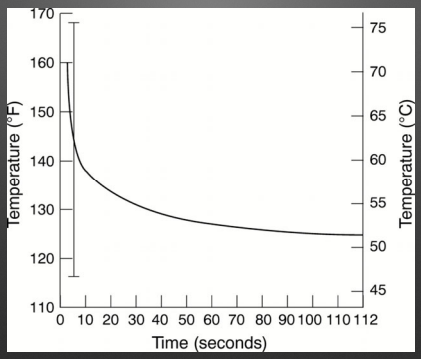
Temperature of Water

- Children bathe comfortably at 101 degrees
- Hot tubs are generally set at 102-104 degrees
- Adults sense water as painful at 112-114 degrees
- Recommended water heater setting is 120 degrees

Temperature of Water

- At 120 degrees it would take 10 minutes to produce a deep partial thickness burn
- At 130 degrees there is a difference between children and adult skin burn times
- Above 130 degrees, children burn in 1/4 the time of adults
- Hot water splash burns require 140 degrees to produce tissue injury

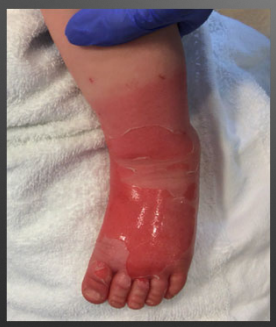
Burn Curve

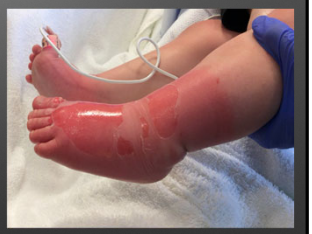


Immersion Burns

- Burn patterns:
  - Uniformity of burn depth
  - Flexion sparing
  - Linear contour between burned and unburned skin
  - Absence of splash marks
  - Bilateral burn symmetry
  - Skin sparing in areas where the skin was in contact with cooler surfaces (doughnut)

Immersion Burns

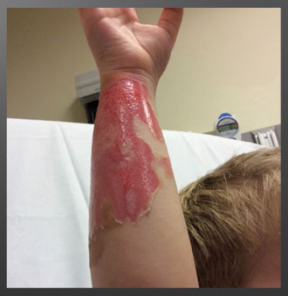




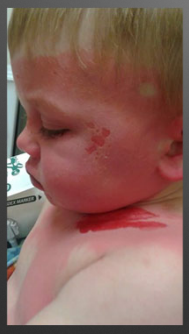
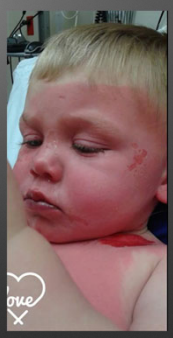
Flowing Liquid

- Can be altered by clothing
- Triangular (V) shaped pattern (flow pattern)
- Type of liquid can significantly affect the burn
  - Liquids with greater boiling point (higher heat source) and viscosity (prolonged contact with skin) can result in deeper more significant burns

Flowing Liquid

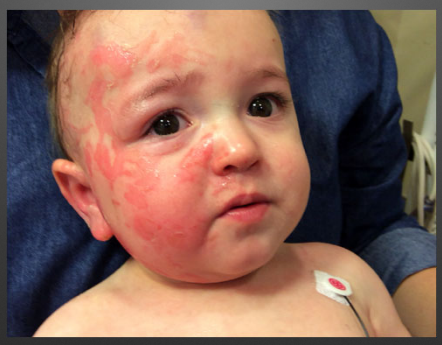
Flowing Liquid

Splash/Splatter Burns

- Require a minimum temperature of 140 degrees to produce tissue injury
- Lower temperatures will cool to a point where thermal cutaneous injury will not occur

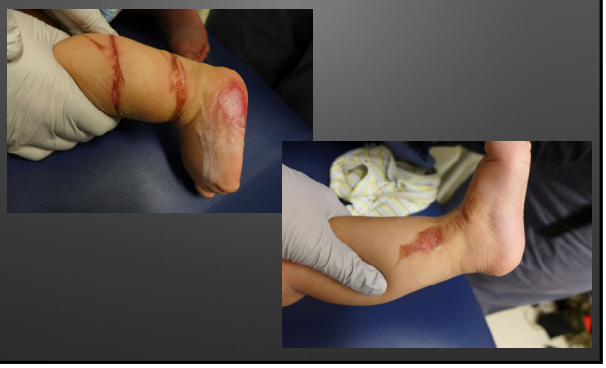
Splash Burns



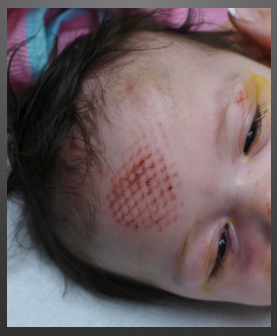
Heated Solid Objects

- Due to prolonged contact with hot solid
- Abusive:
  - Distinct margins
  - Grouped burn lesions
  - Clearly inscribed patterns
  - Injuries on parts of the body normally covered by clothing

Heated Solid Objects



Heated Solid Objects



Abusive Head Trauma

Nomenclature

- In 2009, the AAP recommended adoption of a less mechanistic term, "abusive head trauma", to describe the constellation of cerebral, spinal and cranial injuries that result from inflicted head injury to infants and young children
- The term shaken baby syndrome is still used in education and prevention efforts

Pediatrics. 2009;123(5):1409-11

Definition

- AHT is defined as inflicted injury to the head of an infant or young child
- Mechanisms include crush head injury, shaking, shaking with impact, impact alone, or strangulation

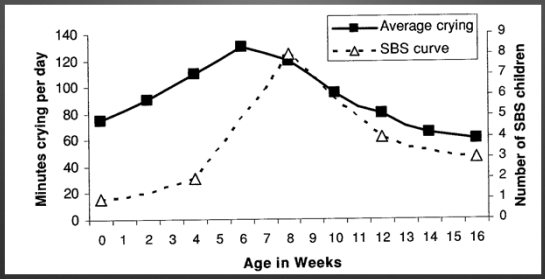
Kleinman, P. Diagnostic imaging of child abuse. 3rd ed.

Epidemiology

- 14 to 30 per 100,000 cases of AHT in infants < 1 year of age
- Peak hospitalization rates for AHT occur at 2-4 months of age
- Peak rates of AHT fatalities in the first 2 months of life
- The leading cause of death in child abuse victims under 4 years of age

Kleinman, P. Diagnostic imaging of child abuse. 3rd ed.
Parks, S. Inj Prev. 2012:18(6):392-8

Incidence of crying and shaken baby syndrome



Acta Pediatrica. 2008;97:782-785

Clinical presentation

- Irritability
- Lethargy
- Vomiting
- ALTE/BRUE
- Seizures
- Respiratory distress
- Cardiopulmonary arrest
- Coma
- Brain death

Misdiagnosis

- 31% of children and infants with AHT were initially misdiagnosed
- Misdiagnosed victims were more likely to be:
  - Younger
  - White
  - Less severe symptoms
  - Live with both parents

Jenny C. JAMA. 1999;281:621-6

Obtaining the History

- When was the child last seen well?
- When did symptoms first occur?
- What were the symptoms?
- What did the caregivers do at that time?
- Was CPR attempted?
- When was help called?
- What kind of help was called?

Child Protection Team

- Provider on call 24/7
- Always happy to answer questions
- 271-3636

OKLAHOMA
State Department
of Health

OKLAHOMA TRAUMA SYSTEM QUALITY IMPROVEMENT PROCESS
REFERRAL FORM
Please complete this form and attach related records.

Reporting individual contact information	☐I wish to remain anonymous
Date	
Full name and title	
Organization	
Telephone number	
Email address	
Patient information for review	
Date of incident	
Name of patient	
Patient date of birth	
Your medical record#	
Name of any other involved agency/facility	
Reason for requesting review: *(Check all applicable boxes and include a brief narrative)*	
☐ *Good Job!*	
☐ *Incorrect application of the Trauma Triage, Transport, and Transport Algorithm*	
☐ *Deviation from Regional Trauma Plan*	
☐ *Delay in care*	
☐ *Communication problems*	
☐ *Refusal*	
☐*Other(please specify)*	
Additional information:	

Mail, fax, or email to:
OKLAHOMA STATE DEPT. OF HEALTH
EMERGENCY SYSTEMS: Attn. CQI
123 Robert S Kerr Ste.1702 Oklahoma City, OK 73102
Phone: (405) 271-4027 Fax (405) 271-1045
Email: esystems@health.ok.gov

REGIONAL TRAUMA ADVISORY BOARD
Authorized Representative Form

DATE: _____

☐ NEW APPOINTMENT
☐ UPDATED APPOINTMENT

TRAUMA REGION:

☐ NW REG-1
☐ NE REG-2
☐ SW REG-3
☐ EC REG-4
☐ SE REG-5
☐ CENTRAL REG-6
☐ TULSA REG-7
☐ OKC REG-8

ORGANIZATION NAME: _____

INDIVIDUAL AUTHORIZING APPOINTMENT OF RTAB REPRESENTATIVES:

Name: _____

Job Title: ☐ Hosp Admin. /or_____ ☐ EMS Director /or _____

Signature: _____

DESIGNATED REPRESENTATIVE: (please print legibly)

Name: _____

Job Title: _____

Email: _____

Telephone: _____

Facsimile: _____

ALTERNATE REPRESENTATIVE: (please print legibly)

Name: _____

Job Title: _____

Email: _____

Telephone: _____

Facsimile: _____

ALTERNATE REPRESENTATIVE: (please print legibly)

Name: _____

Job Title: _____

Email: _____

Telephone: _____

Facsimile: _____

*** *Please fax to the Emergency Systems at (405) 900-7560*** Update Annually***

Oklahoma State Department of Health
Emergency Systems
123 Robert S. Kerr Ave Ste. 1702, Oklahoma City, Oklahoma 73102-6406

Office Use Only:
___ Distribution List ___ Attendance Roster
___ Sign in Form ___ Vote Call Form
(If new facility/agency – update rotation – trauma plans)