2021

EMERGENCY HEALTHCARE SYSTEM PLAN

C.T.R.A.C

EST. 1992

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INTRODUCTION

Central Texas Trauma Regional Advisory Council (CTRAC) was incorporated on March 1993. Initial funding was provided by contract from the Texas Department of Health; which became Texas Department of State Health Services in 2005. CTRAC is one of 22 Regional Advisory Councils in the State of Texas. RACs were developed to handle Trauma Service Areas (TSAs). CTRAC serves the six county Region, which includes Bell, Coryell, Hamilton, Lampasas, Milam, & Mills Counties.

The RACs were charged with developing a system plan based on standard guidelines for implementing a comprehensive trauma & emergency healthcare system. The development of a regional emergency healthcare system plan is the ultimate responsibility of the stakeholders and participants of each RAC Region. The essence of an emergency healthcare system is the ability to get the right patient to the right hospital at the right time to reduce death and disability. CTRAC members continue to make great strides toward this goal and continue to collaborate and strive to improve care of trauma and acute patients.

Since its inception, CTRAC has been active in trauma prevention and education programs as well as development and implementation of trauma patient care standards. Maintaining public education and awareness activities to increase the understanding of the trauma & emergency healthcare system, access to trauma care and prevention of injuries, and providing coordination of acute medical services in mass casualty and disaster settings is an integral part of the mission and goals of CTRAC. Trauma, emergency, and acute care should be part of a seamless emergency healthcare system that provides patients with well-organized and high-quality care. Incorporation of an overall health care system requires cooperation and availability of each component of the system.

SERVICE AREA/FACILITIES

The Central Texas RAC service area is comprised of five rural counties (Coryell, Hamilton, Lampasas, Milam, and Mills) and one suburban county (Bell). This geographical boundary is known as Trauma Service Area (TSA) L as well as Perinatal Care Region (PCR) L. Interstate 35, a heavily traveled transportation artery, transects Bell County and is the source of many multi-vehicular crashes annually. Also, heavily traveled State Highways in that transect all of our rural counties. Most other transportation primarily occurs via farm-to-market roads and county-maintained roadways.

Bell County (population 362,924) is the only urban county in the Region and covers 1051.02 square miles in Central Texas. Bell County's median income is $54,184 and 15.1% of the population does not have health insurance. Bell County hosts three (3) different hospital systems representing six (6) hospitals: **Baylor Scott & White (BSW) Health System**, **AdventHealth System**, and **Ascension Texas**.

- BSW – Temple, in Temple, is a 634-bed acute care facility with surgical capability. BSW - Temple is the Region's Lead Trauma Facility as the only Level I Trauma Center between the Metroplex and Austin. The facility has also received Joint Commission certification as a Comprehensive Stroke Center and a Primary Chest Pain Center with PCI Capability. BSW - Temple is also the Lead Perinatal Facility with the only Level IV Maternal designation.
- McLane Children's Medical Center BSW, in Temple, is a 112-bed acute care facility with surgical capability. McLane Children's is the only Pediatric hospital between the Metroplex and Austin. McLane Children's is the Region's Lead Pediatric Level II Trauma Facility for both TSA L & M. While BSW – Temple physically houses the Level IV NICU, it is part of McLane Children's with pediatric and neonatal transport ambulance and helicopter.
- Carl R Darnell Army Medical Center (CRDAMC), at Ft. Hood, is a 151-bed acute care facility with surgical capability. CRDAMC is a designated Level III Trauma Center in addition there is a designated Level II NICU.
- AdventHealth Central Texas (AHCT) , a 230-bed hospital, is a acute care facility located in Killeen. AHCT is a designated Level IV Trauma Center, and accredited as a Primary Chest Pain Center with PCI capability. AHCT is accredited as a Primary Stroke Center. The facility is also designated as a Level II maternal/nursey facility. AHCT also has a behavorial health emergency department. On the same property, AdventHealth Behavorial Health Center is a 60-bed facility sprecializing in mental health with acute care capabilities.
- Seton Medical Center Harker Heights is an 83-bed acute care hospital in Harker Heights with surgical capabilities. Seton is a desgianted Level IV Trauma Center as well as a designated Level II Maternal and Neonatal Facility. Seton Medical Center Harker Heights is Joint Commission Accredited, an Accredited Chest Pain Center, and Advanced Primary Stroke Center.
- BSW – Continuing Care Hospital (CCH) is a 48-bed facility located in Temple. CCH provides Emergency, Long-Term Acute, and Skilled Nursing care.
- BSW – Pavilion is a located in Temple. Pavillion provides emergency care and has surgical capabilities. The Pavillion has two licensed inpatient beds, 8 operating rooms, and 31 pre/post rooms. Pavillion is not currently a RAC Member.
- Everest Rehabilitation Hospital is a 36-bed facility located in Temple. Everast is not currently a RAC member.

There are five (5) EMS ground services and multiple first responder organizations that provide pre-hospital care in Bell County.

Coryell County (population 75,951) encompasses 1052.07 square miles. Coryell County's median income is $51,440 annually and 15.2% of the population does not have health insurance. **Coryell Health System** is in the middle of the county in Gatesville. Coryell Health is a 25-bed acute care with surgical capabilities. Coryall Health has skilled nursing and rehabilitation services. Coryell Health is a designated Level IV Trauma Facility. There is one (1) ground emergency medical service (EMS) that is owned and operated by Coryell Health System. Coryell County has multiple first responder organizations that provide pre-hospital care.

Hamilton County (population 8,461) is in the northwestern portion of the Region and encompasses 835.91 square miles. Hamilton County's median income is $47,500 and 22.8% of the population does not have health insurance. Hamilton General Hospital is in the center of the county in the City of Hamilton. **Hamilton General Hospital** is a 25-bed acute care facility with surgical capability and is a designated Level IV Trauma Facility. There is one (1) ground emergency medical service (EMS) that is owned and operated by the Hamilton Health System.

Lampasas County (population 21,428) encompasses 712.84 square miles. Lampasas County's median income is $58,194 and 12.9% of the population does not have health insurance. **AdventHealth Rollins Brook**, a 25-bed critical access hospital in Lampasas, located 25 miles west of Killeen. AdventHealth Rollins Brook has surgical capabilities and is designated as a Level IV Trauma Center. There are two (2) ground emergency medical service (EMS) and many FROs that provide prehospital care support to both EMS agencies.

Located in the eastern-most portion of the Region, **Milam County** (population 24,823) includes 1016.93 square miles of primarily farm and ranch land. Milam County's median income is $47,081 and 15.6% of the population does not have health insurance. Milam County does not have a hospital. Healthcare is provided by local clinics and the EMS ground provider and multiple first responder organizations that provide prehospital care in Milam County.

Located in the western-most portion of the Region, **Mills County** (population 4,873) includes 749.26 square miles of primarily farm and ranch land. Mills County's median income is $41,827 and 14.6% of the population does not have health insurance. Mills County has 6.5 persons per square mile just short of the Frontier County designation but for RAC purposes it is considered as frontier. Milam County does not have a hospital. Healthcare is provided by local clinics and the EMS ground provider and multiple first responder organizations that provide prehospital care in Mills County.

REGIONAL PLAN

This plan has been developed in accordance with generally accepted emergency healthcare guidelines for sustainment of a comprehensive Emergency Healthcare System Plan. This plan does not establish a legal standard of care, but rather is intended as an aid to decision-making in general time-sensitive patient care scenarios. It is not intended to supersede the physician's prerogative to order treatment.

Due to the rural areas in this Region, the Central Texas RAC promotes and supports First Responder Organizations (FRO) and Volunteer Fire Departments (VFD) in order to help ensure expedited prehospital emergency care for our residents and those traveling in our Region.

Central Texas Regional Advisory Council's

Mission Statement

To provide the infrastructure and leadership necessary to reduce death and disability through coordinated efforts focused exclusively on the Emergency Healthcare System within CTRAC Region.

Vision

To be a model leader in Texas for meeting the needs of the entire Emergency Healthcare System.

Purpose

1. Advance and improve the state of healthcare for the injured patient within the counties of Central Texas Regional Area.
2. Decrease morbidity and/or mortality which results from injury.
3. Encourage activities designated to promote cooperation among member organizations.
4. Improve funding of trauma care providers within the counties served by this council.
5. Maintain an Emergency Healthcare System Plan for the RAC which is based on standard guidelines for comprehensive system development.
6. Improve public awareness of the methods of accessing the trauma and acute care systems and preventing injury.
7. Coordinate responses to mass casualty and disaster events.

BOARD OF DIRECTORS

Position	Name	Entity
Chair	Angie Gentry, RN, MSN	Baylor Scott & White – Temple
Vice Chair	Elizabeth Hicks	Acadian Ambulance
Secretary	Wesley Gilbreath	Belton Fire Department
Treasurer	Amy Haire	AdventHealth Central Texas
Immediate Past Chair	Taylor Ratcliff, MD	
Cardiac Committee Representative	Dr. Jay Widmer	BSW - Temple
EMS Operations Committee Representative	Jacob Creel	PHI Med 1-5
Healthcare Coalition Emergency Preparedness Committee Representative	Jennifer Henager	Bell County Office of Emergency Managment
Medical Advisory Committee Representative	Dr. Tim Rudolph	Hamilton General Hospital
Stroke Committee Representative	Dr. Arash Shadman	BSW – Temple
Trauma Committee Representative	Lauren Prouty	AdventHealth Central Texas

Trauma Program Representative	Heidi Lavka, RN	Carl R Darnall Army Medical Center
Military Facility Representative	Vanessa Sieg, MD	Carl R Darnall Army Medical Center
Lead Pediatric Facility	Kayla Cehand	McLane Children's Medical Center - BSW
Rural Area At-large	Daniel Lay	Coryell Health EMS
Physician At-large	Scott Sagraves, MD	BSW – Central Division
Community At-large	Ashley Liebeg-Voss	StarFlight

COMMITTEES & WORKGROUPS

Cardiac Committee - To serve as a liaison between health care facilities within this region to include the monitoring of system development, coordination of activities, performance improvement, facility designations and hospital training.

EMS Operations Committee - To serve as a liaison for pre-hospital providers within this Region to include the monitoring of system development, coordination of activities, performance improvement, and pre-hospital training.

Healthcare Coalition/Emergency Response - To coordinate preparedness and responses to acute medical mass casualty and disaster situations.

Medical Advisory Committee - To provide oversight and assistance related to patient care/system issues for the CTRAC region and assist the CTRAC PI Committee with PI issue resolutions.

Perinatal Committee - To serve as a liaison between health care facilities within this region to include the monitoring of system development, coordination of activities, performance improvement, facility designations and hospital training.

Stroke Committee - To serve as a liaison between health care facilities within this region to include the monitoring of system development, coordination of activities, performance improvement, facility designations and hospital training.
Trauma Committee - To serve as a liaison between health care facilities within this region to include the monitoring of system development, coordination of activities, performance improvement, facility designations and hospital training

EMS PROVIDERS

County	EMS Provider	Contact	Level	RAC Member
Bell	Belton EMS (AMR) MD: Dr. Margaret McGraw	505 N. 3rd St Temple 76501	BLS w/MICU	Yes
	Harker Heights Fire/EMS MD: Dr. Taylor Ratcliff	401 Indian Trail Harker Heights 76548	MICU	Yes
	Scott & White EMS, Inc. MD: Dr. Margaret McGraw	2401 S 31st St. Temple 76508	BLS w/ MICU	Yes
	Temple EMS MD: Dr. Margaret McGraw	505 N. 3rd St Temple 76501	BLS w/ MICU	Yes
	Killeen Fire/EMS MD: Dr. Chris Colvin	201 N. 28th Killeen 76541	MICU	Yes
	Carl R Darnall AMC EMS (Ft Hood EMS) MD: Dr. Kevin Schlicksup	36065 Santa Fe Avenue Ft Hood 76544	BLS w / MICU	Yes
	Acadian Ambulance MD: Dr. Emily Kidd	4100 Ed Bluestein Blvd #100 Austin 78721	BLS w/ MICU	Yes
Coryell	Coryell Health EMS MD: Dr. Jeff Bates	1507 W. Main Gatesville 76528	MICU	Yes
	Copperas Cove Fire/EMS MD: Dr. Taylor Ratcliff	415 S. Main St Copperas Cove 76522	BLS w/ MICU	Yes
Hamilton	Hamilton EMS MD: Dr. Tim Rudolph	400 N. Brown Hamilton 76531	BLS w / MICU	Yes
Lampasas	Acadian Ambulance MD: Dr. Emily Kidd	4100 Ed Bluestein Blvd #100 Austin 78721	BLS w/ MICU	Yes
Milam	AMR – Milam MD: Dr. Mark Ackrell	3601 Bluestein Blvd. Austin 78721	BLS w/ MICU	Yes
Mills	Hamilton EMS MD: Dr. Tim Rudolph	400 N. Brown Hamilton 76531	BLS	Yes

FIRST RESPONDER ORGANIZATIONS

County	First Responder Organization	Address	Phone	RAC Member
Bell	Bartlett VFD MD: Dr. Taylor Ratcliff	PO Drawer H Bartlett, TX 76511	254-527-3219	yes
	Central Bell County VFD MD: Dr. Taylor Ratcliff	100 N Main St Nolanville, TX. 76559	254-317-9656	no
	Fort Hood Fire Department MD: Kevin Schlicksup	Bldg. 23025 Fort Hood, TX 76544	254-553-0640	no
	Holland VFD MD: Dr. Taylor Ratcliff	PO Box 326 Holland 76534	254-857-2365	yes
	Little River Academy VFD MD: Dr. Taylor Ratcliff	PO Box 351 Little River 76554	254-982-4251	yes
	Moffat VFD MD: Dr. Taylor Ratcliff	5660 Lakeair Blvd Temple 76502	254-986-8388	no
	Morgan's Point First Responders MD: Dr. Taylor Ratcliff	8 Morgan's Point Blvd Belton 76513	254-780-2022	yes
	Rogers VFD MD: Dr. Margaret McGraw	PO Box 309 Rogers 76569	817-642-3312	no
	Salado VFD MD: Dr. Margaret McGraw	PO Box 503 Salado 76571	254-947-8961	yes
	Southwest Bell County VFD MD: Dr. Chris Colvin	PO Box 10792 Killeen 76547	254-526-4500	no
	Sparta VFD MD: Dr. Taylor Ratcliff	7041 Sparta Rd Belton 76513	254-721-6085	no
	Stillhouse VFD MD: Dr. Taylor Ratcliff	PO Box 457 Belton 76513	254-933-2302	no
	Temple Fire and Rescue MD: Dr. Margaret McGraw	210 N. 3rd Street Temple 76501	254-298-5682	yes
	Troy VFD MD: Dr. Taylor Ratcliff	PO Box 1 Troy 76579	254-938-2188	no

Coryell	Coryell City/Osage VFD MD: Dr. Jeff Bates	301 CR 255 Oglesby 76561	254-230-8758	no
	Flat FRO MD: Dr. Jeff Bates	PO Box 60 Flat 76526	254-487-2936	no
	Gatesville VFD MD: Dr. Jeff Bates	109 S. 23rd Gatesville 76528	254-865-8416	no
	Jonesboro VFD MD: Dr. Jeff Bates	PO Box 6 Jonesboro 76538	254-463-2200	no
	Levita VFD MD: Dr. Jeff Bates	4310 CR107 Gatesville 76528	254-381-7958	no
	Oglesby VFD/FRO MD: Dr. Jeff Bates	PO Box 185 Oglesby 76561	817-470-2204	no
	Turnersville VFD MD: Dr. Jeff Bates	1205 CR 226 Gatesville 76528	254-494-6585	no
Hamilton	Hico VFD	PO Box 383 Hico 76457	254-485-1933	no
	Jonesboro VFD	PO Box 6 Jonesborough 76538		no
Lampasas	Lampasas Fire Department	1107 E. 4th Lampasas 76550	512-556-3446	no
	Lometa VFD	PO Box 246 Lometa 76853		no
	Kempner VFD	PO Box 136 Kempner 76539	254-466-8968	yes
Milam	Thorndale FRO			no
Mills	No Registered EMS- First Responder Organization			

AIR MEDICAL PROVIDERS

Name	Location	Address	Dispatch Number
Air Evac LifeTeam AEL66	Killeen	1210 Bell Tower Dr. Killeen, TX Base Phone: 254-628-1275 MD: Dr. Darioush Kavospour	877-633-3544
PHI Air Medical Med 1-5	Temple	Temple, TX 76508 MD: Dr. Jay Kovar Assoc MD: Dr. Taylor Ratcliff	877-435-9744

FIXED WING PROVIDERS

Apollo MedFlight (Lufkin) – (866) 443-5566

CareFlite (Metroplex) – (800) 442-6260
Sarah Floch, Fixed Wing Program Manager
(817) 505-8100
sfloch@careflite.org

CSI Aviation – Medical Flight Services
8101 S Clear Creek, C104
Killeen, TX 76549
(80) 765-9464
Killeen Regional Airport

FACILITY CAPABILITIES

Use matrix to determine closest appropriate facility.

	Advent Health Central Texas	Advent Health Rollins Brook	Baylor Scott & White - Temple	Carl R Darnell Army Medical Center (CRDAMC)	Coryell Health System	Hamilton General Hospital	McLane Childrens	Seton Medical Center Harker Heights
Trauma Designation	IV	IV	I	III	IV	IV	II	IV
CT Capability								
Weight limit								
MRI Capability								
Weight limit								
Operating Rooms Available								
Stroke Designation	Primary	ND	CSC	ND	ND	ND	ND	Primary
Cardiac Accreditation	PCI	ND	PCI	ND	ND	ND	ND	PCI
Nursery Designation	II	ND	IV	II	ND	ND	IV	II
Maternal Designation	II	ND	IV	ND	ND	ND	IV	ND
Licensed Beds	230	25	634	151	25	25	112	83
Critical Access Recognized		yes				YES		

ND = non-designated

FACILITY CONTACTS

Facility	Address
Baylor Scott & White Medical Center – Temple TMD: Dr. Justin Regner TPM: Nicole Myers SPM: Krissi Hart, Cynthia Gomez, Cory Tremin SMD: Dr. Jennifer Rasmussen CPM: Jerry Caldwell CMD: MPM: Jennifer McAdams MMD: Dr. Steve Allen	2401 S. 31st St. MS-11-A306 Temple 76508 254-724-8202
McLane Children's Medical Center - BSW TMD: Dr. Hayden Stagg TPM: Kayla Cehand NPM: Michelle Hempel NMD: Dr. Vinayak Govande	1901 SW HK Dodgen Loop MS- CH-1205 Temple 76502 254-771-8600
Carl R Darnall Army Medical Center TMD: Major Brian Sparkman TPM: Heidi Lavka	36065 Santa Fe Avenue Ft Hood 76544 254-553-3979
AdventHealth Central Texas TMD: Dr. Brian Zwern TPM: Lauren Prouty SPM: Lauren Prouty SMD: Dr. Marcella Knauf CPM: James Lampley CMD: MPM: Tabitha Poole MMD: Dr. Andrew Faniku NPM: Tabitha Poole NMD: Dr. Eric Allerkamp	2201 S. Clear Creek Rd Killeen 76549 254-526-7523
Seton Medical Center Harker Heights TMD: Dr. Jared Kennedy TPM: Kristin Cummings SPM: Devin Brummett SMD: CPM: Michael Moore CMD: MPM: Heidi Cantrell MMD: Dr. Thomas Patton NPM: Charlene Oaks NMD: Dr. John Lloyd	850 W. Central Texas Exp. Harker Heights 76548 254-690-0900

Cedar Crest Hospital	3500 S IH-35 Belton 76513 254-939-2100
Olin E. Teague Veteran's Medical Center, Central Texas Veteran's Health Care System	1901 Veterans Memorial Dr Temple 76504 254-778-4811
Advent Health Behavioral Health	2201 S Clear Creek Rd Killeen 76549 254-628-1000
BSW - Continuing Care Hospital	546 N Kegley Rd Temple 76502 254-215-0900
Coryell Health System TMD: Dr. Jeff Bates TPM: Chancy Lay	1507 W. Main St Gatesville 76528 254-248-6300
Hamilton General Hospital TMD: Dr. Tim Rudolph TPM: Becky Thompson	400 N. Brown St Hamilton 76531 254-386-1600
Advent Health Rollins Brook TMD: Dr. Ron Johnson TPM: Laura Metcalf	608 N. Key Ave Lampasas 76550 512-564-3200

FREESTANDING EMERGENCY DEPARTMENTS

Premier ER Plus – Temple
7010 W Adams Avenue
Temple, TX 76502
Main: (254)
Fax: (254)
RAC POC: Crissie Richardson
Medical Director:

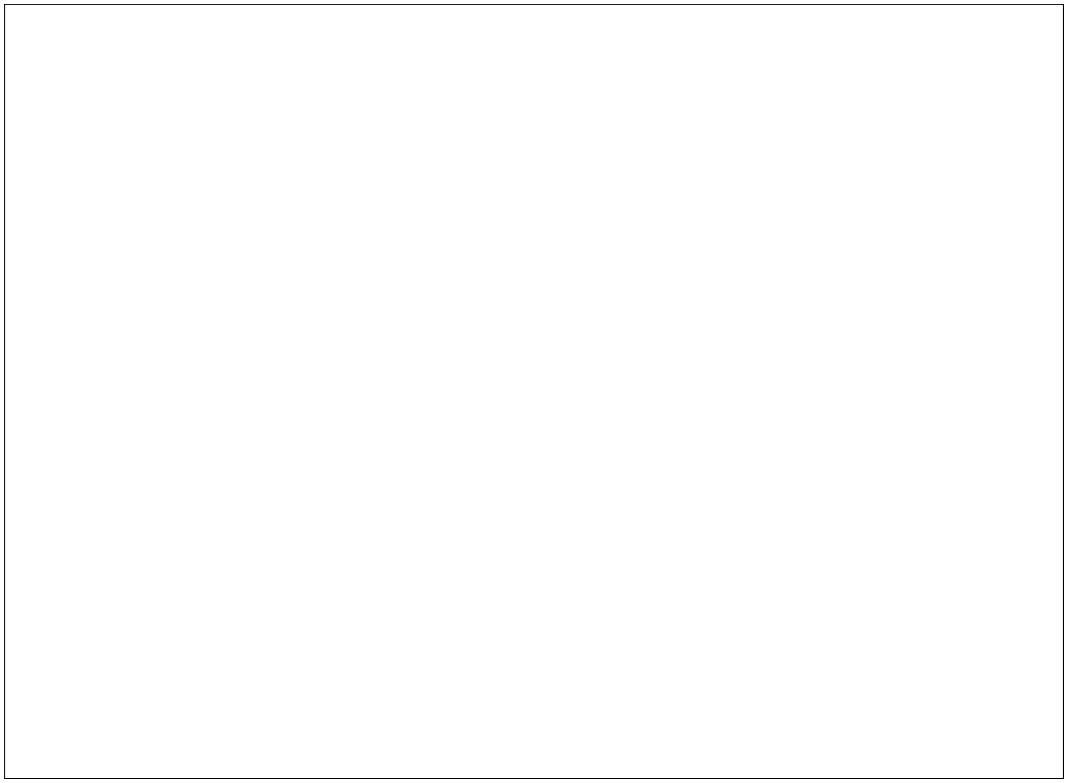
Express ER *(currently not a member of the RAC)*

Main: (254)
Fax: (254)
ED: (254)
ED Fax:
RAC POC:
Medical Director:

SignatureCare Emergency Center Killeen
800 W Central Texas Expressway
Killeen, TX 76548
Main: (254) 220-4117
Fax: (254) 883-5235
RAC POC: Alia Mauricio
Medical Director: Dr. Michael Hasegawa

PUBLIC HEALTH CONTACTS

Public Health Points of Contact
Bell County Public Health District (24/7 line) – 254.773.4457
Milam County Public Health Department (24/7 line) - 254.697.7039
Health Service Region 7 (24/7 line) – 254.778.6744



SYSTEM ACCESS

GOAL

The Goal for System Access within CTRAC is two-fold. First, rapid access to notification of the need for emergency and trauma care at any location within CTRAC must be available to all persons in the Region. Second, Emergency Medical Services (EMS) must be rapidly available to provide quality healthcare to injured or ill persons in the CTRAC Region. In portions of this Region, First Responder Organizations (FRO) may provide initial treatment pending EMS arrival.

OBJECTIVES

1. To ensure that all persons located in CTRAC Region will have the availability to access Emergency Dispatch for EMS services.
2. To ensure emergency healthcare providers have communication equipment available.
3. To strive to maintain an adequate number of First Responders and EMS providers that have the knowledge, skills, and equipment needed to provide emergency care to persons requesting assistance within the Region.

DISCUSSION

Basic '911' is a regional system providing dedicated trunk lines, which allow direct routing of emergency calls. Routing is based on the telephone exchange area, not municipal boundaries. Automatic Number Identification (ANI) and Automatic Location Identification (ALI) are provided with 'Enhanced 911'. ANI is a system capability that enables an automatic display of the seven-digit number of the telephone used to place a '911' call. ALI is a system that enables the automatic display of the calling party's name, address and other information.

Alternate Routing is a selective routing feature which allows '911' calls to be routed to a designated alternative location if all incoming '911' lines are busy, or the Public Safety Answering Point (PSAP) closes for a period of time. Selective Routing (SR) is a telephone system that enables '911' calls from a defined geographic area to be answered at a pre-designated PSAP.

All the '911' systems within CTRAC are 'Enhanced 911', which automatically routes emergency calls to a pre-selected answering point based on geographical location from which the call originated. All '911' systems in CTRAC are enhanced with different levels of service.

COMMUNICATIONS

GOAL

CTRAC strives to ensure communication capability between EMS providers, medical control, receiving facilities, and other First Responders. Rapid dispatch and notification of the need

for emergency and trauma care at any location within CTRAC Region must be available to all persons in the Region. Each agency is responsible for monitoring their own response time(s) using established guidelines for their geographical area.

OBJECTIVES

1. To facilitate regional communications, and to work cooperatively with the Central Texas Council of Governments (CTCOG) to ensure that all EMS & First Responder Units as well as hospital emergency personnel have a list of the communication devices & operating frequencies of the EMS and emergency providers operating in the CTRAC Region and to encourage all participating agencies to enter into a Memorandum of Understanding with the State of Texas for adherence to established permissions and guidelines for use of interoperability or mutual aid radio channels.
2. To facilitate that all EMS providers, First Responders, and hospital facilities in the CTRAC Region have functional communications equipment in order to communicate information related to the patient's condition, the need for medical, EMS, or helicopter back-up, and to receive and communicate information related to patient care and disposition.
3. To facilitate that emergency dispatch within the CTRAC Region is accomplished by persons who have the knowledge, skills, and equipment necessary to rapidly mobilize the appropriate level of emergency care to persons requesting assistance throughout the region. It is recommended that dispatchers attend Emergency Medical Dispatch training or other appropriate training for consistent knowledge among dispatchers within the CTRAC Region.
4. To facilitate agencies are utilizing the National Incident Management System (NIMS)/Incident Command System (ICS) Communications for Multi-agency scenes.
5. To assist the CTCOG with communications protocols for interagency responses that serve the best interest of all agencies involved in remediating the emergency they are currently working on; and, to do this in a manner that is consistent with the utilization of the Texas Statewide Interoperability Channel Plan when possible.

DISCUSSION

There are numerous communication systems currently in use in the CTRAC. In time of disaster it is essential that all agencies can communicate seamlessly and that all agencies and their employees are extremely familiar with all communication capabilities that are available to their agency. Regardless of the method that may be used on a regular basis to communicate with other emergency service agencies and hospitals, in a time of disaster these normal communication mediums may be overwhelmed and/or may fail. The use of multiple communications systems ensures regional communications are maintained between public and private EMS agencies, police, fire, hospital entities and other government and non-government entities, however, all personnel that may be called upon to use wireless and wired communications must be proficient in the use of those systems in worst case scenarios.

Dispatch - Emergency dispatch in each of the six (6) CTRAC counties is accomplished through various methods (i.e., sheriff's office, local police department, or county 911

services). All 911 PSAP's in the CTRAC are equipped with a Director IP radio system or its equivalent. These Director IP or equivalent radio systems have communication capability for day to day operations on frequencies (channels) designated by each agency as well as designated VHF and 800MHz Interoperability channels. Each of these systems also can cross link (patch) multiple radios to provide users operating on different frequencies the ability to communicate with other users regardless of the frequency band that they have access to.

Prehospital Providers – EMS Providers throughout CTRAC use various frequencies and communication devices to handle day to day radio traffic, those frequencies are most typically VHF and 800 MHz; however, this is not all inclusive to all hospitals as a result other communications methods are being used on a day to day basis. It is the intent of the CTRAC to support a more streamlined method for agencies communications capabilities and needs in the area and to work toward the simplest method possible that meets the needs of each agency.
Hospitals - All CTRAC hospital facilities maintain communications capability with prehospital care providers using various communications means to include VHF, UHF, 800, cellular phones, or standard phone lines. CTRAC purchased each facility an Amateur (HAM) radio. CTRAC is an active participant in the interoperability planning efforts being address by the Central Texas COG. CTRAC strives to remain at Level 4 interoperability and support all efforts to reach and maintain an interoperability Level 6.

Interagency Air Medical Operations – In an effort to enhance safety measures associated with air medical operations in the CTRAC region, it ESSENTIAL that units on the ground have a reliable means of communicating with responding air medical units. Air medical personnel should have the capability of tuning the aircraft radio to various departmental frequencies, but in order to avoid confusion and reduce the risks involved with helicopter operations at emergency scenes all agencies should utilize primarily one of the following channels/talk-groups VMED28, Copperas Cove Helicopter talk-group or Bell County Helicopter talk-group to communicate with air medical units whenever possible. Backup channels will be VFIRE21 and Bell County VFD main. If more than one helicopter will be responding to the same incident, the incident commander shall notify each air medical agency dispatch with the ETA of the other aircraft and the appropriate radio frequency for all to communicate. Crews should utilize common aviation frequency 123.025 to communicate air to air during multi-aircraft scene responses if unable to establish communication via above listed frequencies.

Interagency Operations- When two or more agencies will be working together on an emergency scene those agencies under the direction of the established IC should communicate on frequencies (channels/talk-groups) that are designated under the Texas Statewide Interoperability Channel Plan as a priority.

Users on 800 MHz radio communications systems primarily in Copperas Cove and Bell County will use designated MUTUAL AID channels as established by the Bell County Communications Center. In situations where VHF and 800 MHz users will be working jointly, a patch, or patches may be created at the discretion of the incident command.

Radio Site on Wheels (SOW) – The CTRAC has a SOW that is available for use at any emergency scene within the CTRAC. There is no cost for the use of the SOW for any recognized first responder organization that requests it. A request for deployment of the SOW may be made to the Copperas Cove Police Department at 254-547-8222, option 1.

EMRESOURCE® GUIDELINES

GOAL

To provide guidelines for EMResource® use by hospitals, pre-hospital providers, public health departments, as well as others who have access to the system.

HOSPITAL RESPONSIBILITY

All local, state, and federal laws, including but not limited to EMTALA, pertaining to patients presenting to emergency departments for care still apply. Nothing in this plan should be interpreted in a manner that would violate the right of patients seeking emergency care. Patients presenting to any hospital in the care of EMS will not be denied triage/treatment on the basis of that hospital's patient acceptance status.

REQUIREMENTS

1) All listed hospitals are required to update the EMResource® daily between 7:00am and 9:00am or as situations warrant as described/defined in this document.
2) All listed EMS agencies are required to update the EMResource® at a minimum of twice a week, preferably Mondays and Fridays between 7:00 am and 9:00 am or as situations arise as described/defined in this document. Air medical services should update daily as feasible.

EMResource® PROCEDURES AND POLICIES:

A. Description
   1. EMResource® is a Web-based program providing real-time information on status, capacity and availability of resources for emergency departments, hospitals and transport services.
   2. EMResource® is used to coordinate "routine" and emergency medical operations [e.g., mass casualty incidents (MCI)] throughout the defined service area. The purpose of is not to make decisions regarding transportation, but to facilitate patient transportation and communication.
   3. EMResource® is used to communicate important information, such as disasters, public health alerts or notification of potential terrorist events, simultaneously and consistently to all users.
   4. EMResource® is operated on a computer located in the hub of operations, i.e., in the hospital emergency department or other location staffed 24 hours a day and in the dispatch centers of transporting EMS agencies. EMResource® is in use 24 hours a day, seven days a week.

B. Purpose

1. The implementation of EMResource® is an effort to efficiently and effectively:
   a. Communicate situations in which the diversion of an ambulance(s) may be necessary due to the existence of temporary conditions in hospital emergency departments or the hospital that may affect patient care.
   b. Determine hospital patient capacity, availability of staffed beds and availability of specialized treatment capabilities during an MCI or a terrorist incident.
   c. Notify pre-hospital care providers, as well as other health care facilities, of temporary limitations of services or resources at receiving hospitals.
   d. To provide real-time public health and other special alerts.

2. With EMResource®, the definition of hospital status is standardized across the entire state. Participating hospitals will update EMResource® with their current hospital status. However, EMS providers and/or emergency medical systems should continue to follow their local policies and procedures regarding the determination of hospital destinations.

3. Use of EMResource® will aid in taking patients to the most appropriate facility.

4. Use of EMResource® and these policies is intended to effectively manage and coordinate hospital and EMS resources, including but not limited to:
   a. Minimizing prolonged patient transport times.
   b. Minimizing prolonged out-of-hospital care when definitive hospital-based resources are needed.
   c. Determining EMS resources available to the service area.
   d. Helping to determine or obtain timely information important during an MCI, public health or other special event.

C. Functions

1. Hospital Emergency Department Status
   a. Participating hospitals update their routine emergency department/hospital status at defined intervals. (Daily between 7:00am and 9:00am or as situation warrants.)
   b. A status screen displays the status of each hospital in service area.
   c. Hospitals, EMS services and other users view the current status page to assess system capacity, potential bottlenecks and the availability ofresources.

2. Mass Casualty Incident Support
   a. Unplanned, acute, medical emergencies involving significant numbers of ill or injured people require instantaneous EMS resource allocation.
   b. Participating hospitals enter MCI details required to respond.
   c. Each hospital then enters its ability to accept patients including decontamination patients and/or special needs patients.
   d. Incident-specific evaluation and treatment protocols are easily uploaded and immediately available to all facilities.
   e. Critical information can be instantaneously disseminated to health care providers, public health agencies and other key emergency medical personnel.

Hospital Status Definitions:
Open — green color: Accepting all traffic
Divert — red color: Diverting ambulance traffic (update every 2 hrs.)
Resource Alert— yellow color: Actual or pending resource limitations exist
Internal Disaster – black color: Indicates that there is an environmental or physical plant situation, such as utility outage, unsafe situation in the hospital, etc.

The following abbreviations and terms may be used in comments as resources:

- Med/Surg Beds - Medical/Surgical inpatient beds
- ICU Beds – Adult Intensive Care Unit beds to include medical, surgical, or coronary.
- Telemetry Beds - Beds with monitoring capabilities
- NICU Beds - Beds in the Neonatal Intensive Care Unit
- PICU Beds - Beds in the Pediatric Intensive Care Unit
- PEDI Beds - Pediatric beds
- L & D Beds - Beds in Labor and Delivery
- Psych Beds - Available beds in the Psychiatric Unit
- Closed Psych beds – Locked Psychiatric beds
- OR - Operating Room
- Trauma Center Level - Designated Trauma Center Level I, II, III, or IV.
- CT SCAN - Computerized axial tomography
- Fixed MRI - Fixed Magnetic Resonance Imaging Unit
- Mobile MRI - Mobile Magnetic Resonance Imaging Unit

PREHOSPITAL STATUS DEFINITIONS:

Available – green color - Unit or organization is ON-CALL and AVAILABLE to respond to emergency calls
Caution – yellow color - Resource limitations exist. Must specify in comments.
Unavailable – red color - Unit or organization is UNAVAILABLE TO RESPOND to new emergency requirements currently.

D. Primary Users
   1. Primary users are service area hospitals, pre-hospital agencies, EMS first responders, public health, and mental health. Additional primary users may be added as they are identified. Primary users have read and write access to their specific information on the system and read-only access to all other users' information.
   2. Primary users may view status information and update their respective area service data. User- specific historical data also can be retrieved for data collection, downloading or printing.

E. Secondary Users

1. Secondary users are all other interested agencies such as Offices of Emergency Management, EMS dispatchers, etc. These users will have read only access to the system.
2. Secondary users may view defined area status information. These users cannot update or alter system information unless mutually agreed upon by the Primary user agency and the Secondary user agency.

F. Access to Data
   1. The Administrator will have full access to EMResource® data.
   2. The following policy is in place for data access:
      a. Each Primary User shall have access to its individual data elements.
      b. Anyone seeking data queries of a specific facility's information should direct their request to Administrator or that specific Primary User.
      c. Requests from the public and media for statistics should be given to that agency's designated spokesperson.

G. Accessing EMResource® Help
   1. First discuss any EMResource® problems you are encountering with your own IT Department.
   2. Technical assistance: EMResource® has a 24-hour help desk to assist users with technical issues with the operation of EMResource®. They can be reached at (888) 735-9559.

PREHOSPITAL MEDICAL OVERSIGHT

GOAL

The goal for Regional Medical Oversight in CTRAC is multifaceted:

1. To ensure strong physician leadership and supervision for prehospital providers in both on-line and off-line functions.
2. To secure medical involvement in regional planning and educational program development.

OBJECTIVES

1. To evaluate regional trauma and acute care from a systems perspective and to involve EMS medical directors in all phases and at all levels of the leadership and planning activities of regional development.
2. To identify and educate regional medical control resources, standardize treatment guidelines, and analyze accessibility of medical control resources.
3. To identify and educate CTRAC EMS providers and sources of on-line and off-line medical control.
4. To meet or exceed the minimum state requirements for all prehospital reporting per the Department of State Health Services (DSHS) reporting requirements.

DISCUSSION

The CTRAC Region includes both rural and suburban hospital and emergency providers with varying levels of medical capability. There is no single EMS medical director for all the CTRAC EMS providers; however, there is one EMS medical director per provider or for multiple EMS providers within each county. All EMS medical directors are members of the CTRAC Medical Advisory Committee, which meets on a quarterly basis.

Medical Direction of Prehospital Providers - In accordance with DSHS guidelines, all pre-hospital providers function under medical control. Regional triage, bypass, and transport guidelines are maintained and distributed to all EMS providers for incorporation into local protocols. Periodic reviews and updates are completed and upon approval are distributed as necessary.

A tiered system of patient care based on severity of injury utilizes First Responder Organizations and EMS providers with varying level of capability to ensure the rapid assessment and initial care of the patient and transport to the appropriate level of care. Off-line medical control protocols direct EMS provider interventions. On-line medical control from the receiving CTRAC facility is also utilized when the patient's condition or scene conditions cannot be addressed by off-line protocols.

SYSTEM PERFORMANCE IMPROVEMENT

GOAL

The goals for Regional System Performance Improvement in Central Texas Region are to establish a method for monitoring and evaluating system performance over time and to assess the impact of emergency healthcare system development.

OBJECTIVES

1. To provide a multidisciplinary forum for emergency care providers to evaluate emergency healthcare patient outcomes from a system perspective and to assure the optimal delivery of emergency care.
2. To facilitate the sharing of information, knowledge, and scientific data.
3. To provide a process for medical oversight of regional emergency healthcare.

DISCUSSION

In order to assess the impact of regional emergency healthcare sustainment, system performance must be monitored and evaluated from an outcomes perspective. A plan for the evaluation of operations is needed to determine if system development is meeting its stated goals. Injuries will be reviewed up to ten (10) days post injury and related readmissions up to thirty (30) days after discharge. For all other performance improvement, ten (10) days post illness and related readmission up to thirty (30) days after initial discharge.

The Medical Advisory Committee (MAC) reviews trends of patient care; however, in certain cases, the MAC discusses more in depth those items that include double transfers,

unplanned readmissions, visit to ER within 72 of inpatient stay, and deaths. Program Managers and Medical Directors should be prepared to provide a short description and answer questions on these cases.

Additionally, if a case seems out of place, RAC staff may request to review a case. Other RAC members could ask for a case to be reviewed. In these two situations, notification will be provided as soon as notice of the review is made. This process is followed for all disciplines of the CTRAC Emergency Healthcare System.

Authority - The authority and responsibility for regional performance improvement rests with the Regional Advisory Council. This responsibility will be accomplished in a comprehensive, integrated manner through the work of the Medical Advisory Committee and other standing committees.

Scope & Process - The Medical Advisory Committee serves as the oversight committee for regional performance improvement. Referrals for follow-up and feedback to & from the committee and providers ensure system-wide, multidisciplinary performance improvement.

The Medical Advisory Committee will approve the type of data and manner of collection, set the agenda for the Performance Improvement process within the regularly-scheduled meetings of the committee, and identify the events and indicators to be evaluated and monitored. Indicator identification will be based on high risk, high volume, and problem prone parameters. Indicators will be objective, measurable markers that reflect resources, procedural/patient care techniques, and or systems/process outcomes. The standing committees will provide Performance Improvement indicator recommendations; however, the Medical Advisory Committee will have final approve of the Performance Improvement process.

Occurrences will be evaluated from a system, outcomes prospective, and sentinel events will be evaluated on a case by case basis. Activities and educational offerings will be presented to address knowledge deficits and case presentations, or other appropriate mediums will be designed to address systems and behavioral problems. All actions will focus on the opportunity to improve patient care and systems operation. The results from committee activities will be summarized and communicated to the RAC membership. Problems identified that require further action will be shared with the persons and entities involved, for follow-up and loop closure. Committee follow-up and outcome reports will be communicated on a standard format.

The functions and effectiveness of the Central Texas RAC Performance Improvement Process will be evaluated on an annual basis in conjunction with the annual evaluation of the Central Texas RAC Regional Emergency Healthcare System Plan. All Performance Improvement activities and committee proceedings are strictly confidential. Individuals involved in performance improvement activities will not be asked to review cases in which they are professionally involved but will be given the opportunity to participate in the review process.

Data Collection - Performance Improvement data will be collected by the RAC Staff. Performance Improvement forms and summary reports are submitted by each Central Texas facility and EMS provider on at least a quarterly basis. Sentinel events will be used to focus attention on specific situations/occurrences of major significance to patient care outcomes.

Reporting Quarters – CTRAC Regional Performance Improvement data-reporting quarters are as follows:

First Quarter:	Jan-Feb-Mar	Due: May 15th	Reporting at: 2nd quarterly meeting
Second Quarter:	April-May-June	Due: Aug 15th	Reporting at: 3rd quarterly meeting
Third Quarter:	July-Aug-Sep	Due: Nov 15th	Reporting at: 4th quarterly meeting
Fourth quarter:	Oct-Nov-Dec	Due: Feb 15th	Reporting at: 1st quarterly meeting

CTRAC Regional Performance Improvement

Statement of Confidentiality - Medical performance improvement provides an objective mechanism to evaluate trauma and emergency care; facilitates the sharing of information, knowledge, and scientific data; and provides a forum for medical directors and other physicians to review the performance of the regional systems to assure the optimal delivery of trauma and emergency care. The direction of the committee comes from the Texas EMS Rules Section 157.124 Regional EMS Trauma Systems (3)(k) of the EMS Rules {effective 2/17/17} requires the development of a "performance improvement program that evaluates outcome from a system perspective" and following:

Committee members engaged in medical care review have protection from disclosure of proceedings, under Section 773.095 RECORDS OF PROCEEDINGS CONFIDENTIAL of the Texas Health and Safety Code as follows:

(a) The proceedings and records of organized committees of facilities, medical societies, emergency medical service providers, or first responder organizations relating to the review, evaluation, or improvement of an emergency medical services provider, a first responder organization, or emergency medical services personnel are confidential and not subject to disclosure by court subpoena or otherwise.

(b) The records and proceedings may be used by the committee only in exercise of proper committee functions.

(c) This section does not apply to records made or maintained in the regular course of business by an emergency medical services provider, a first responder organization, or emergency medical services personnel.

Section 773.096 IMMUNITY FOR COMMITTEE MEMBERS

"A member of an organized committee under Section 773.095 is not liable for damages to a person for an action taken or recommendation made within the scope of the functions of the committee if the committee member acts without malice and in the reasonable belief

that the action or recommendation is warranted by the facts known to the committee member."

REGIONAL OUTREACH FOCUS

In Texas, RACs are important to the public and to our membership for information and resources. CTRAC provides information, expertise, and public safety leadership in time sensitive and emergency healthcare in the 6-county Region. Outreach activities are an integral part of RAC services and are designed to help outcomes through public awareness, dissemination of information, and facilitation of access to care. The components of the RACs outreach activities include public awareness, social media notices, prevention education, and signs & symptoms. The scope of outreach activities varies on several factors: location, time of the year, prevalence of issues, and types of deaths reviewed. Main focus areas are published annually in January of each year on the Prevention Calendar. This calendar is shared with membership and on the CTRAC website. Social media campaigns are tied directly to these focus areas.

AIR MEDICAL ACTIVATION

GOAL

To fascilitate guidelines for access and dispatch of air medical services to achieve effective, efficient and coordinated responses to emergencies involving critically ill or injured patients. The goal of these guidelines is to reduce delays in providing optimal care for critically ill or injured patients, and to decrease morbidity and mortality.

DECISION CRITERIA

Helicopter activation/scene response should be considered when it could reduce transportation time for trauma patients meeting dispatch guidelines. Early activation should be considered for the following:

- Major trauma
- Suspected cardiac emergencies
- Suspected stroke
- Burn patients meeting Burn Center criteria
- Other accidents (boating, industrial, farming, downed aircraft and near drowning)

GUIDELINES FOR ACTIVATION/AIR MEDICAL DISPATCH:

- The EMS providers may request a scene response from air medical when one or more of the activation or triage criteria exist:
  - Once a helicopter has been activated to a scene only the transporting agencies highest level of certification should make the determination to cancel the air response.

- **Ground EMS providers should not remain on scene awaiting arrival of air medical if an appropriate Trauma, Cardiac, or Stroke facility is nearby and the patient can be transported faster by ground.**
- Ground EMS providers should activate the air medical as early as possible, including Prior to arrival to scene if the mechanism of injury or illness meet activation guidelines.
- The ground EMS provider may activate air medical if the patient has an emergent need for a procedure or intervention not available from ground provider and the air medical can deliver this intervention faster than transport time to appropriate facility.
- Other factors to consider: Location of Incident, Number of Patients, Age of patients, Weight of Patients, Response time of air medical.
- Patients should be taken to the closest appropriate facility based on the CTRAC Emergency Healthcare System Plan.

Cardiac System

STEMI

The classification of STEMI patients is based on a standard definition of the "STEMI patient" which is applied in a consistent manner in both the pre-hospital and facility settings.

STEMI Patient - In TSA L, the STEMI patient is defined as any patient presenting with symptoms of an acute myocardial infarction with new ST-elevation equal to or greater than 1mm in two contiguous leads.

This region strives to have STEMI patients to the cath lab as soon as possible. Our goal is 90 minutes from first medical contact to device at a PCI facility.

PREHOSPITAL STEMI MANAGEMENT

GOAL

Patients will be identified, rapidly and accurately assessed, and based on identification of their actual or suspected onset of symptoms, will be transported to the nearest appropriate Central Texas facility.

PURPOSE

In order to ensure the prompt availability of medical resources needed for optimal patient care, each patient will be assessed for the presence of abnormal vital signs; concurrent disease/predisposing factors; and abnormal 12-lead.

SYSTEM TRIAGE

- If a provider is unable to complete 12-lead within 10 minutes of first medical contact, should take a suspected cardiac patient to the nearest acute care facility within Central Texas.
- If a provider suspects a STEMI, the patient should be given aspirin and the patient should be taken directly to a PCI Facility within Central Texas and the initial 12-lead should be transmitted to that PCI facility. The paramedic should notify the PCI Facility of suspected STEMI by calling a "STEMI Alert" to the facility along with a clinical description of the patient and verbal summary of the 12-lead EKG findings.

EMS Provider	Cardiac Monitor	Transmission Method
AMR(Temple, Milam, Belton)	Lifepak 15	LifeNet
Acadian Ambulance	Lifepak 15	LifeNet
Copperas Cove Fire	Zoll X Series	Zoll Rescue Net
Coryell Health EMS	Zoll X Series	Zoll Rescue Net
Hamilton EMS		
Harker Heights Fire	Lifepak 15	LifeNet
Killeen Fire	Lifepak 15	LifeNet
Ft. Hood EMS	Lifepak 15	Text Message

- If a provider is unable to provide MICU care to the suspected cardiac patient, paramedic intercept should be considered. Paramedic intercept may be by ground or air.
- If transport by ground to the nearest PCI facility is more than 20 minutes, consider helicopter activation.

HELICOPTER ACTIVATION

GOAL

Central Texas regional air transport resources will be appropriately utilized in order to reduce delays in providing optimal cardiac care.

DECISION CRITERIA

1. Helicopter activation/scene response should be considered when it can reduce transportation time for patients with time sensitive critical illness, such as STEMI, etc.

Providers should be familiar with ground versus air transport times in their respective regions and utilize air transport when appropriate.
Should there be any question whether to activate TSA L regional air transport resources, on-line medical control should be consulted for the final decision.

2. All EMS Providers with 12-lead capability and transmission should send the initial 12 lead to the PCI Facility.

EMS Provider	Cardiac Monitor	Transmission Method
Air Evac LifeTeam 66	Zoll X series	Fax
PHI Air Medical 1-5	Zoll	Fax/email

3. Patients transported via helicopter should be taken to the nearest PCI Facility within the Central Texas Region.
4. The closest available helicopter should be utilized to reduce transport time to a PCI Facility.

FACILITY CARDIAC SERVICES UNAVAILABILITY

GOAL

The Central Texas facilities will communicate "Cardiac Unavailability" status promptly and clearly to regional EMS and other facilities in order to ensure that STEMI patients are transported to the nearest appropriate facility. Update should be communicated on EMResource ®.

SYSTEM OBJECTIVES

1. To ensure that STEMI patients will be transported to the nearest appropriate Central Texas facility.
2. To develop system treatment guidelines for regional service unavailability statuses:
   - Situations which would require the facility to note service unavailability.
   - Notification/activation of facility service unavailability status.
   - Procedure for termination of diversion status
3. Regional cardiac care problems associated with services unavailability will be assessed through the Medical Advisory Committee Performance Improvement process when the diversion causes a negative impact on a patient.

FACILITY BYPASS

GOAL

Suspected STEMI patients will be safely and rapidly transported to the nearest appropriate facility within the Central Texas RAC.

DECISION CRITERIA

Regional transport treatment guidelines ensure that patients who meet the triage criteria for activation of the Central Texas Regional STEMI System will be transported directly to the nearest appropriate PCI Facility rather than to the nearest facility except under the following circumstances:

1. If unable to establish and/or maintain an adequate airway, the patient should be taken to the nearest acute care facility for stabilization.
2. Medical Control may wish to order bypass when a facility is unable to meet facility resource criteria or when there are patients in need of specialty care.
3. If expected transport time to the nearest appropriate PCI Facility is excessive (>30 minutes), medical control or the EMS crew on-scene should consider activating air transportation resources.
4. Additionally, should the patient or their cardiologist choose to bypass a PCI Facility, their request should be followed when possible.

Note: Should there be any question regarding whether to bypass a facility, the receiving facility should be consulted.

FACILITY TRIAGE CRITERIA

GOAL

The goal of establishing and implementing facility triage criteria in Central Texas is to ensure that all regional facilities use standard definitions to classify STEMI patients in order to ensure uniform patient reporting and facilitate inter-facility transfer decisions.

OBJECTIVES

1. To ensure that each STEMI patient is identified, rapidly and accurately assessed, and based on identification and classification of their actual or suspected onset of symptoms, transferred to the nearest appropriate Central Texas facility.
2. To ensure the prompt availability of medical resources needed for optimal patient care at the receiving facility.
3. To develop and implement a system of standardized STEMI patient classification definitions.

DISCUSSION

- After a confirmed STEMI, a patient should be transferred immediately to the nearest PCI Facility within the Central Texas Region.
- If a PCI Facility receives and confirms a 12-lead, the PCI Facility should activate the facility's STEMI activation protocol. The STEMI activation protocol should include contact of the Cath Team and/or cardiologist on call as needed. The goal is to move a STEMI

patient from the EMS unit to Cath Lab as quickly as possible but sometimes all information may not be available to have EMS take the STEMI patient directly to the Cath Lab.

- Reperfusion therapy should be administered to all eligible patients with STEMI with symptom onset within 12 hours. Primary PCI is the recommended method of reperfusion when it is performed in a timely fashion. If a STEMI patient arrives at a non-PCI facility and the patient cannot be transferred within 30 minutes, the non-PCI facility should consider fibrinolytic therapy. See algorithm below from the 2013 ACCF/AHA STEMI Guidelines.

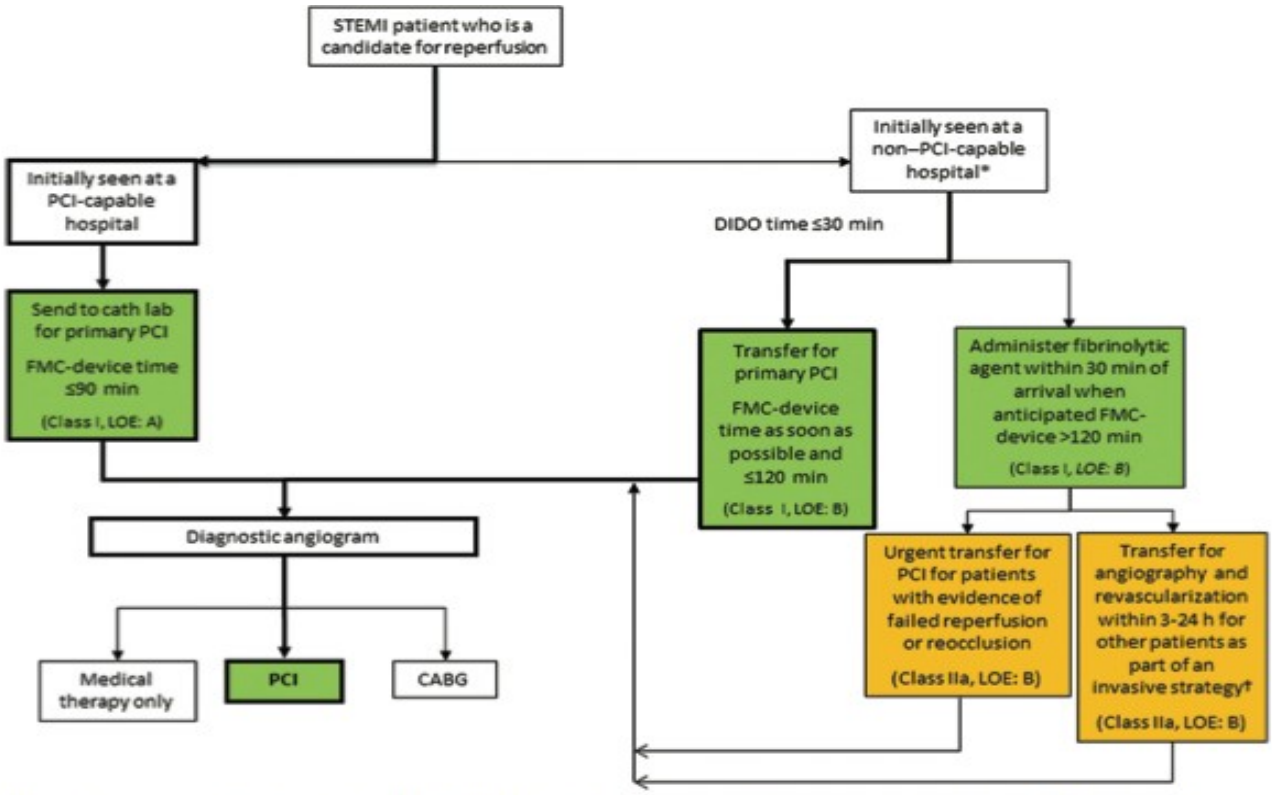


Figure 2. Reperfusion therapy for patients with STEMI. The bold arrows and boxes are the preferred strategies. Performance of PCI is dictated by an anatomically appropriate culprit stenosis. *Patients with cardiogenic shock or severe heart failure initially seen at a non–PCI-capable hospital should be transferred for cardiac catheterization and revascularization as soon as possible, irrespective of time delay from MI onset (*Class I, LOE: B*). †Angiography and revascularization should not be performed within the first 2 to 3 hours after administration of fibrinolytic therapy. CABG indicates coronary artery bypass graft; DIDO, door-in–door-out; FMC, first medical contact; LOE, Level of Evidence; MI, myocardial infarction; PCI, percutaneous coronary intervention; and STEMI, ST-elevation myocardial infarction.

INTER-FACILITY TRANSFERS

GOAL

The goal for establishing and implementing inter-facility transfer criteria in Central Texas is to ensure that those STEMI patients requiring additional or specialized care and treatment beyond a facility's capability are identified and transferred to a PCI Facility as soon as possible.

OBJECTIVES

1. To ensure that all regional facilities make transfer decisions based on standard definitions which classify STEMI patients according to the Central Texas criteria.
2. To identify cardiac treatment and specialty facilities within and adjacent to the Central Texas Region.
3. To establish treatment and stabilization criteria and time guidelines for the Central Texas facilities.

DISCUSSION

The level of cardiac care resources required for STEMI patients is outlined in the Central Texas Facility Triage Criteria and Pre-hospital Triage Criteria as noted in the Cardiac Section of this document. When a suspected STEMI patient is identified activation of a ' STEMI activation' should be initiated. A transferring facility should state that the patient is a STEMI activation when calling EMS Providers and the accepting PCI Facility within Central Texas.

Identification of STEMI Patients & STEMI Transfers - STEMI patients and their treatment requirements for optimal care are identified in the Central Texas Facility Triage Criteria and Pre-hospital Triage Criteria as noted in the Cardiac Section of this document. Written transfer agreements are available between all Central Texas facilities and facilities in adjacent regions.

If a STEMI patient arrives at a non-PCI facility and the patient cannot be transferred within 30 minutes, the non- PCI facility should consider fibrinolytic therapy.

The Central Texas non-PCI facilities are expected to transfer myocardial infarction patients immediately once identified. In order to make this process more streamlined, these facilities may call the emergency department at any Central Texas PCI Facility for auto-acceptance. This process may be used for patients seen in the non-PCI facility's emergency department or admitted as an observation patient/inpatient.

STEMI patients with special needs may be initially transferred to a PCI Facility for assessment and treatment. When resources beyond its capability are needed, transfer to another facility outside the Central Texas should be expedited. The Central Texas non-PCI facilities may also choose to transfer patients with special needs directly to these facilities, bypassing the Central Texas facilities when appropriate.

STEMI Patient Transport - STEMI patients in the Central Texas Region are transported according to patient need, availability of air transport resources, and environmental conditions. Most of the EMS Providers in the Central Texas RAC Region are MICU capable. Additionally, this Region has several air medical services that may be utilized.

In order to expedite transfers, the referring facility should utilize STEMI activation language with the transporting EMS Provider and the PCI Facility.

Central Texas PCI Facilities (all other facilities are non-PCI)
Baylor Scott & White – Temple
AdventHealth Central Texas

Seton Medical Center Harker Heights

PCI Centers Outside TSA L
Ascension Providence (TSA M)
Baylor Scott & White – Hillcrest (TSA M)

- Baylor Scott & White Medical Center - Round Rock (TSA O)
- Baylor Scott & White – Lakeway (TSA O)
- Cedar Park Regional Medical Center (TSA O)
- Central Texas Medical Center (TSA O)
- Dell Seton Medical Center at the University of Texas (TSA O)
- Heart Hospital of Austin (TSA O)
- Seton Medical Center – Williamson (TSA O)
- Seton Medical Center – Austin (TSA O)
- Seton Medical Center – Hays (TSA O)
- St. David's Medical Center (TSA O)
- St. David's North Austin Medical Center (TSA O)
- St. David's Round Rock Medical Center (TSA O)
- St. David's South Austin Medical Center (TSA O)
- Westlake Medical Center (TSA O)

REGIONAL PERFORMANCE IMPROVEMENT

The Medical Advisory Committee will serve as the Performance Improvement Committee for the Central Texas RAC. This committee will determine the type of cardiac data and manner of collection, set the agenda for the CTRAC Regional Cardiac Performance Improvement process within the regularly scheduled meetings of the committee, and identify the events and indicators to be evaluated and monitored. Indicator identification will be based on high risk, low volume, and problem prone parameters. Indicators will be objective, measurable markers that reflect stroke resources, procedural/patient care techniques, and or systems/process outcomes. At a minimum the Region will collect the following data indicators:

REGIONAL PERFORMANCE INDICATORS

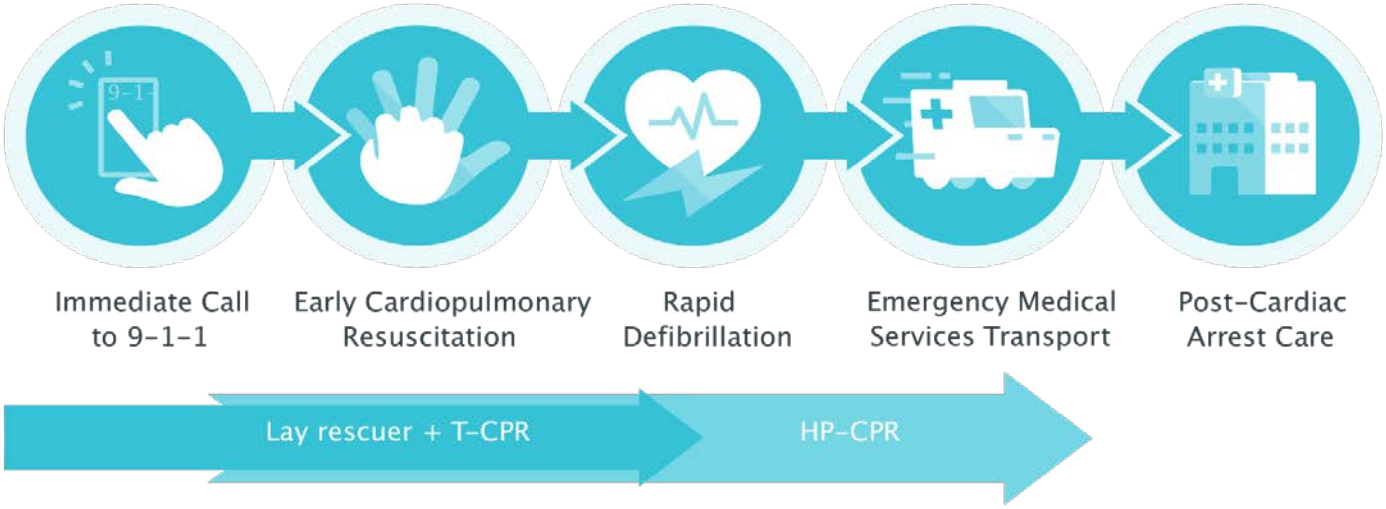
- PCI Centers will report first medical contact to device for all STEMI patients.
- Non-PCI Center will report first medical contact to transfer for all STEMI patients.
- EMS Providers will report first medical contact to initial EKG for all STEMI patients.
- EMS Providers will report whether or no aspirin was given to all STEMI patients.

CARDIAC ARREST REGISTRY TO ENHANCE SURVIVAL (CARES)

The Central Texas RAC is beginning the process to participate in Texas CARES Registry. Once the full roll-out is developed then Central Texas RAC specific information will be added to this section.

ABOUT TX★CARES

The Texas-Cardiac Arrest Registry to Enhance Survival (Texas-CARES) Program – a partnership of 9-1-1 centers, EMS agencies and municipal fire departments, hospitals and other healthcare providers, university researchers, and the public – engages all links in the out-of-hospital cardiac arrest (OHCA) chain of survival and promotes a comprehensive, standardized system of OHCA care throughout the state.



COMMUNITY

Early recognition and prompt action by the community is essential to improve OHCA survival. Chest Compression-only CPR (CCR) and Automated External Defibrillation (AED) are key interventions that greatly improve the chance someone survives an out-of-hospital cardiac arrest (OHCA). For every 1 minute the passes without these necessary interventions, the chance of surviving an OHCA decreases by 10%.

A goal of Texas-CARES is to build awareness and facilitate training for communities that can then play their important role in the Chain of Survival across the state. One such initiative already taking place is the annual Texas Two Step CPR event, which has trained thousands of people since it first started outreach on the benefits of CCR.

9-1-1 DISPATCH

9-1-1 telecommunicators process emergency calls and/or dispatch appropriate units to the scene. They often provide patient care instructions for callers to follow until professional rescuers arrive and assume care. These instructions can be the difference between life and death in cases of out-of-hospital cardiac arrest (OHCA).

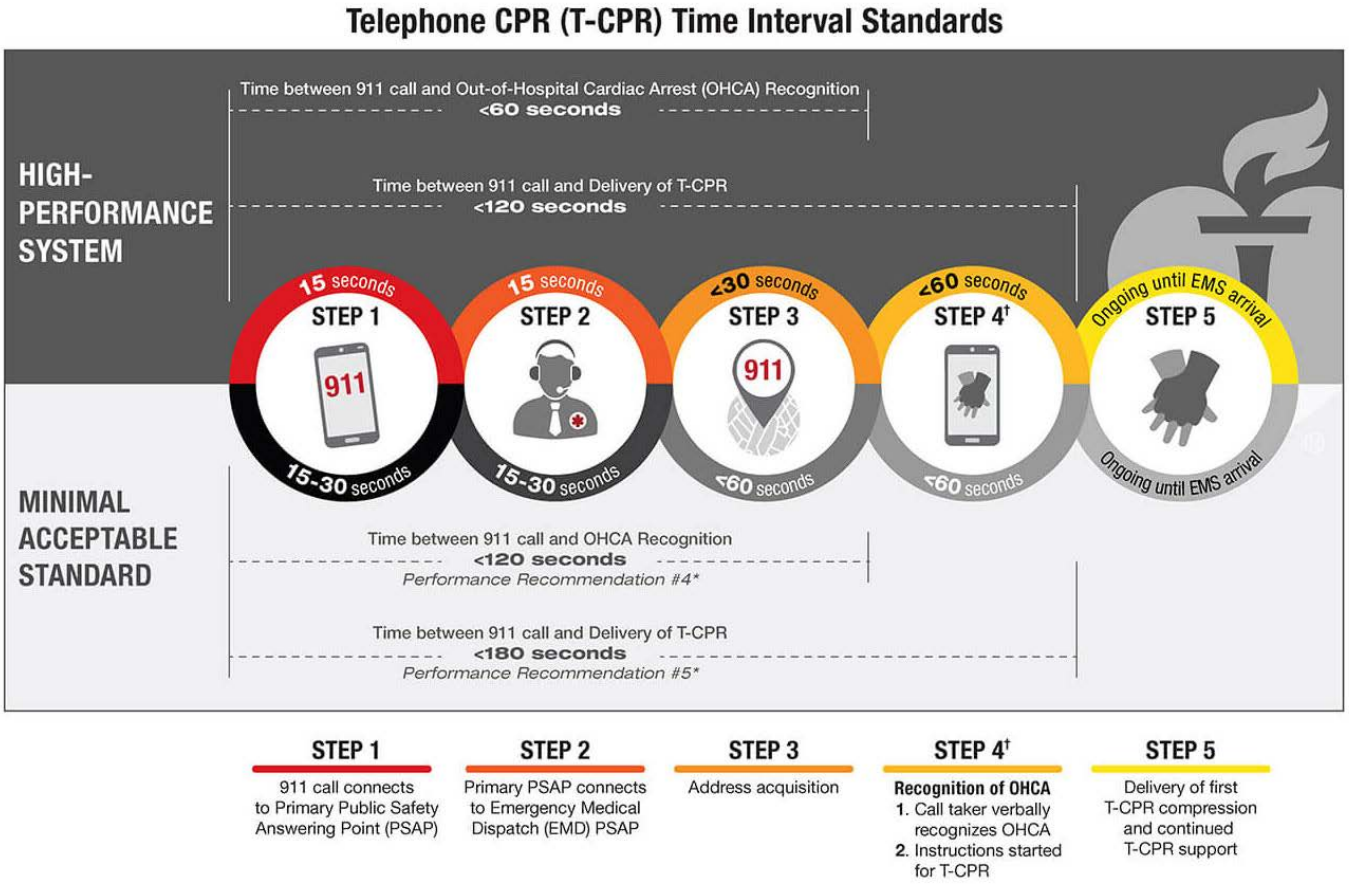
WHAT IS TELECOMMUNICATOR CPR?

Telecommunicator CPR (T-CPR) (also called "Dispatcher-Assisted CPR" or "Telephone CPR") is a process where the person taking the 9-1-1 call:

- helps the caller identify when a person is in cardiac arrest
- gives the caller instructions for performing CPR
- coaches the caller to perform CPR continuously until professional rescuers assume care.

T-CPR has been shown to save lives across the world and is extremely cost-effective, requiring almost no capital expense. The value in lives saved cannot be measured. Texas-CARES offers 9-1-1 centers a data collection tool for tracking their performance on OHCA calls. Data can be used for consultation with individual providers on specific events and to identify staff-level patterns in care.

CPR LifeLinks, a federal resource for implementing best patient care practices, can help 9-1-1 centers achieve the American Heart Association T-CPR time interval standards shown here:



EMS

First Responders play a key role in out-of-hospital cardiac arrest (OHCA) outcomes. Swift patient assessment and "High Performance CPR" are critical to saving lives.

WHAT IS HIGH-PERFORMANCE CPR?

High-Performance CPR is an expertly performed, choreographed, and measured resuscitation attempt. It requires sound individual skills and seamless team performance.

HP-CPR is the foundation of successful resuscitation and is the most important EMS therapy in treating out-of-hospital cardiac arrest (OHCA). Other interventions, such as advanced airway management and drug administration, should never interrupt CPR or compromise chest compression quality.

The table below cites the American Heart Association performance recommendations for EMS CPR, causes and effects of shortfalls in care, and key points for providers.

Significant Components of Adult CPR

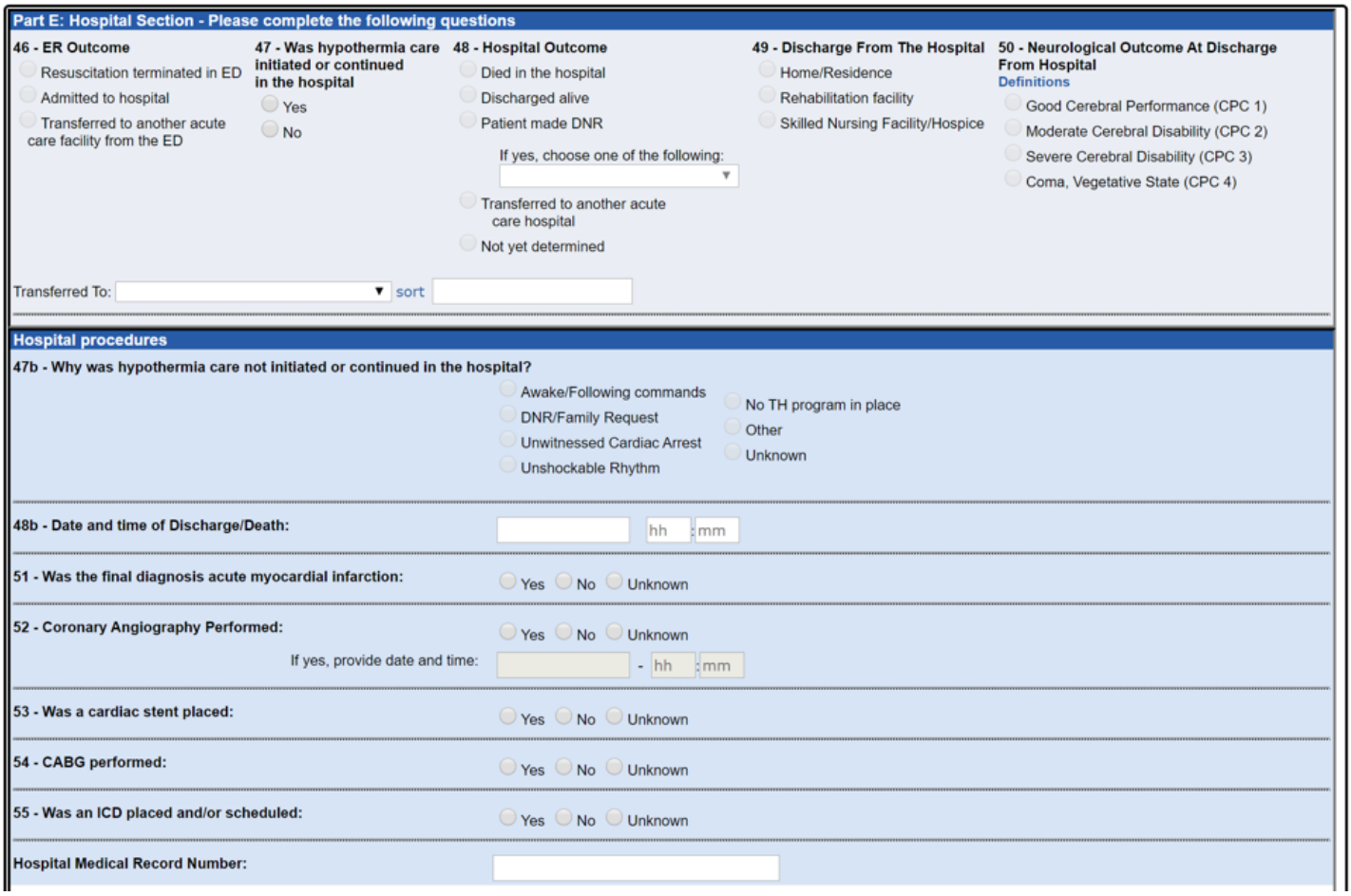
	Performance Recommendations	Common Errors & Causes	Possible Effects of Common Errors	Key Points for Providers
Chest compression depth	¬ At least 2 inches ¬ No more than 2.4 inches ¬ Approx 5–6 cm	¬ Too shallow ¬ Too deep ¬ Fatigue	▼ coronary perfusion pressure ▼ cerebral perfusion pressure ¬ Potential injuries	"Push hard, but not too hard"
Chest compression rate	¬ 100–120 per minute	¬ Too slow ¬ Too fast ¬ Fatigue	▲ intrathoracic pressure ▼ coronary perfusion pressure ▼ cerebral perfusion pressure	"Push fast & monitor the compression rate"
Chest recoil	¬ Allow complete chest recoil after each compression	¬ Failure to allow full chest recoil ¬ Leaning ¬ Fatigue	▲ intrathoracic pressure ▼ coronary perfusion pressure ▼ venous return ▼ survival	"Allow complete chest recoil"
"Compression fraction"	¬ Minimize ALL interruptions to CPR ¬ Pauses < 10 seconds ¬ At least 60%, **but as high as possible** ¬ High-performing systems achieve compression fraction of 90% or higher	**Prolonged periods of no CPR:** ¬ AED analysis & charging ¬ Pulse checks ¬ Changing rescuer roles ¬ Advanced airway mgmt. ¬ Logistics around defibrillation ¬ Ineffective team coordination	▼ defibrillation success ▼ return of spontaneous circulation (ROSC) ▼ survival	"Minimize interruptions to chest compressions"
Ventilation	¬ 10 breaths per minute ¬ 1 second per breath ¬ Minimal chest rise ¬ Tidal volume 500–600 ml per breath	¬ Excessive ventilation rate ¬ Prolonged ventilation duration ¬ Excessive tidal volume	▲ intrathoracic pressure ▼ coronary perfusion pressure ▼ survival	"Don't overventilate," offer controlled ventilations

Texas-CARES makes available a data collection and reporting platform that allows EMS agencies to measure OHCA care. CPR LifeLinks, in turn, provides guidance and resources to help agencies optimize their care.

HOSPITAL

Texas-CARES aims to help achieve an organized, evidence-based approach to post-resuscitation care in hospital. Without quality inpatient care and key hospital-based interventions, the efforts of bystanders, telecommunicators, and professional pre-hospital rescuers can be for naught.

The CARES registry allows hospitals to measure their care and outcomes according to the following data fields:



Part E: Hospital Section - Please complete the following questions

46 - ER Outcome
- Resuscitation terminated in ED
- Admitted to hospital
- Transferred to another acute care facility from the ED

47 - Was hypothermia care initiated or continued in the hospital
- Yes
- No

48 - Hospital Outcome
- Died in the hospital
- Discharged alive
- Patient made DNR

If yes, choose one of the following:
- Transferred to another acute care hospital
- Not yet determined

49 - Discharge From The Hospital
- Home/Residence
- Rehabilitation facility
- Skilled Nursing Facility/Hospice

50 - Neurological Outcome At Discharge From Hospital
Definitions
- Good Cerebral Performance (CPC 1)
- Moderate Cerebral Disability (CPC 2)
- Severe Cerebral Disability (CPC 3)
- Coma, Vegetative State (CPC 4)

Transferred To: sort

Hospital procedures

47b - Why was hypothermia care not initiated or continued in the hospital?
- Awake/Following commands
- DNR/Family Request
- Unwitnessed Cardiac Arrest
- Unshockable Rhythm
- No TH program in place
- Other
- Unknown

48b - Date and time of Discharge/Death: hh : mm

51 - Was the final diagnosis acute myocardial infarction: Yes No Unknown

52 - Coronary Angiography Performed: Yes No Unknown

If yes, provide date and time: - hh : mm

53 - Was a cardiac stent placed: Yes No Unknown

54 - CABG performed: Yes No Unknown

55 - Was an ICD placed and/or scheduled: Yes No Unknown

Hospital Medical Record Number:

Patient records are compiled into data sets hospitals can access at any time. Standardized CARES reports, always at the user's fingertips, can shed light on patterns of care useful to hospitals aiming to improve their care and outcomes.

Perinatal System

GOAL

Patients will be identified, rapidly and accurately assessed, and based on the identification of their actual or suspect onset of symptoms, will be transferred/transported to the nearest appropriate Central Texas facility.

FACILITY DIVERSION

GOAL

The Central Texas facilities will communicate "facility diversion" status promptly and clearly to regional EMS and other facilities through EMResource in order to ensure that perinatal patients are transported to the nearest appropriate facility.

SYSTEM OBJECTIVES

1. To ensure that ensure patients will be transported to the nearest appropriate Central Texas facility.
2. To develop system treatment guidelines for regional diversion statuses:
   - Situations which would require the facility to go on diversion
   - Notification/activation of facility diversion status
   - Procedure for termination of diversion status
3. Regional perinatal care problems associated with facility diversion will be assessed through the Medical Advisory Committee Performance Improvement process.
4. All facilities and pre-hospital providers will use EMResource® to notify and track diversion status.

PREHOSPITAL DESTINATION GUIDELINES

GOAL

The Central Texas Prehospital Providers to transport safely and rapidly perinatal patients to the nearest appropriate facility within the Central Texas RAC

Considerations

1. A ground ambulance is the most appropriate vehicle for the majority of maternal transports. If an alternate form of transportation is being considered, the referring provider should discuss this alternative with the receiving care provider at time of consultation.
2. **Maternal Transport**
   A. Personnel

1. The composition of the treatment team should be decided jointly by the referring and the receiving care providers based on the condition of the mother and/or fetus.
2. The treatment team members should be selected from appropriately trained, certified, licensed health care providers.
3. Treatment team members should have the collective expertise sufficient to provide the following, if necessary:
    i. Monitoring of vital signs, uterine contractions, deep tendon reflexes, and fetal heart rate
    ii. Monitoring the administration of intravenous infusions and usage of tocolytics, antihypertensive, anticonvulsants, and other appropriate medications
    iii. Care for a wide variety of emergency conditions including delivery and neonatal resuscitation
4. Treatment team members should be oriented to the transport vehicle and usage of transport equipment. All treatment team members should follow state and national standards.
5. In instances such as advanced labor, unstable maternal condition, or severe illness, it may become necessary for the referring care provider or designee to accompany the patient during transport, if transport is still recommended by the receiving physician.

B. Modality
1. Selection of the transport modality should be a joint decision by the referring care provider and receiving care provider based on the condition of the mother and/or fetus. Inclusion of EMS Providers should be included in this conversation.
2. Maternal transport can be accomplished by private vehicle, ambulance, rotary wing aircraft (RWA), or fixed wing aircraft (FWA). The ambulance (ground and air) must be licensed by the State of Texas.

C. Equipment
1. The referring health care provider should be aware of the availability of the Advanced Life Support (ALS) ambulances in the area.
2. Organization and maintenance of additional transport equipment is the responsibility of the treatment team.
3. Additional equipment and supplies that may be necessary should be provided by the transporting team. These include:
    i. Doppler
    ii. Reflex hammer
    iii. Infusion pump
    iv. Oxygen masks
    v. Emergency Delivery Pack
        1. Drape towel or under pad
        2. Gauze dressing
        3. Sterile gloves
        4. Cord clamps and/or umbilical ties
        5. Scissors

6. Bulb syringe or aspirator
7. Plastic bags and ties for placenta
8. Infant receiving blanket/swaddling material with head cover

vi. Neonatal resuscitation supplies and equipment

4. Additional medications that may be necessary should be provided by the treatment team or referring facility after communication among providers. Such medications, including but not limited to those listed below, may be given when ordered by the referring care provider.
   i. Antenatal corticosteroids to accelerate fetal lung maturity
      1. Betamethasone 12 mg IM
      2. Dexamethasone 6 mg IM
   ii. Eclampsia
      1. Magnesium Sulfate 6 gram bolus IV, then 2 grams/hr IV. Additional dose of 2 grams over 5-10 minutes for persistent seizures (repeat x 1)
      2. Calcium gluconate 1 gram IV to reverse magnesium overdose
   iii. Postpartum hemorrhage
      1. Oxytocin (Pitocin) 10 units per ampule/vial
      2. Misoprostol (Cytotec) 100 mcg tablets
      3. Methylergonovine (Methergine) 200 mcg ampules (caution with hypertension)
      4. Carboprost (Hemabate) 250 microgram ampule/vial (caution with asthma)
   iv. Neuroprotection between 23w0d – 31w6d gestation
      1. Magnesium Sulfate 6 gram bolus IV, then 2 grams/hr IV.
   v. Antibiotics for Group B Strep prophylaxis
      1. Penicillin G 5,000,000 units IV
      2. Ampicillin 2 grams IV
      3. Cefazolin 2 grams IV
      4. Vancomycin 1 gram IV
   vi. Antihypertensives
      1. Labetalol IV. Dosage is repeated and/or adjusted at 20 minute intervals according to patient response. May sequentially give 20 mg, then 40 mg, then 80 mg, then an additionally 80 mg, if insufficient response to the lower doses. Maximum dosage is 220-300 mg.
      2. Hydralazine 5-10 mg IV every 20 minutes. Maximum dosage is 30 mg.
      3. Nifedipine 10 mg po every 20 minutes. Maximum dosage is 100 mg.

FACILITY BYPASS

GOAL

Perinatal patients will be safely and rapidly transported to the nearest appropriate facility within the Central Texas RAC.

DECISION CRITERIA

Regional transport treatment guidelines ensure that patients who meet the triage criteria for activation of the Central Texas Regional Perinatal System will be transported directly to the nearest appropriate designated maternal and/or neonatal facility rather than to the nearest facility except under the following circumstances:

1. If unable to establish and/or maintain an adequate airway, the patient should be taken to the nearest acute care facility for stabilization.
2. Medical Control may wish to order bypass when a facility is unable to meet facility resource criteria or when there are patients in need of specialty care.
3. If expected transport time to the nearest appropriate maternal/neonatal designated facility is excessive (> 20 minutes), medical control or the EMS crew on-scene should consider activating air transportation resources.
4. Additionally, should the patient or their physician choose to bypass a facility, their request should be followed when possible.

Note: Should there be any question regarding whether to bypass a facility, the receiving facility should be consulted.

FACILITY DECISION GUIDELINES/INTER-FACILITY TRANSFERS

Indications for Consultation and Transfer

Transport should be considered when the resources immediately available to the maternal or fetal patient are NOT considered to be adequate to deal with the patient's actual or anticipated condition.

Although it is not always possible to prenatally anticipate the need for pediatric subspecialty services, when antenatal and/or genetic testing has identified a fetus with congenital anomalies, prenatal referral to an appropriate subspecialty provider or fetal assessment clinic to provide families with prognostic information and facilitate a coordinated plan for delivery in a facility with the needed services is encouraged. The elective and/or planned delivery of a fetus with a condition(s) that require immediate neonatal transport should be avoided. This may require consult/transfer to a Level III or Level IV designated maternal/neonatal facility due to specific medical or surgical services unavailable at facility.

Below are lists of possible Level III/IV designated facilities that may be utilized outside the Central Texas:

- Baylor Scott & White – Hillcrest – TSA M (Level III Neonatal & Level III Maternal)

The following lists of criteria are to be considered when determining the need for consultation or transport. It is recognized that each situation is unique and nothing can substitute for the individual physician's evaluation and judgment.

Obstetrical Conditions

- Premature rupture of membranes (≥23 weeks with viable fetus)
- Preterm labor (≥23 weeks with viable fetus)
- Preeclampsia, or other hypertensive complications
- Multiple gestation
- Second or third trimester vaginal bleeding (≥23 weeks with viable fetus)

Medical Complications

- Serious infection
- Cardiovascular disease including poorly controlled chronic hypertension
- Poorly controlled diabetes mellitus
- Endocrine disorder including hyperthyroidism
- Renal disease with deteriorating function or increasing hypertension
- Drug overdose or addiction
- Acute and chronic liver disease
- Cancer in pregnancy
- Neurologic disorder (cerebral aneurysm, encephalitis, history of cranial hemorrhage, etc)
- Collagen vascular disease
- Maternal pulmonary disease
- Coagulopathy
- Maternal pulmonary disease complicated by pulmonary insufficiency

Surgical Complications

- Trauma requiring intensive care or requiring a procedure that may result in preterm labor
- Acute abdominal emergency

Fetal Conditions

- Need for antenatal fetal evaluation when there is question about fetal condition or well being
- Intrauterine growth restriction, severe with oligohydramnios

Neonatal Conditions

- Preterm infant less than 32-34 weeks or less than 1500-1800 grams
- Persistent respiratory distress

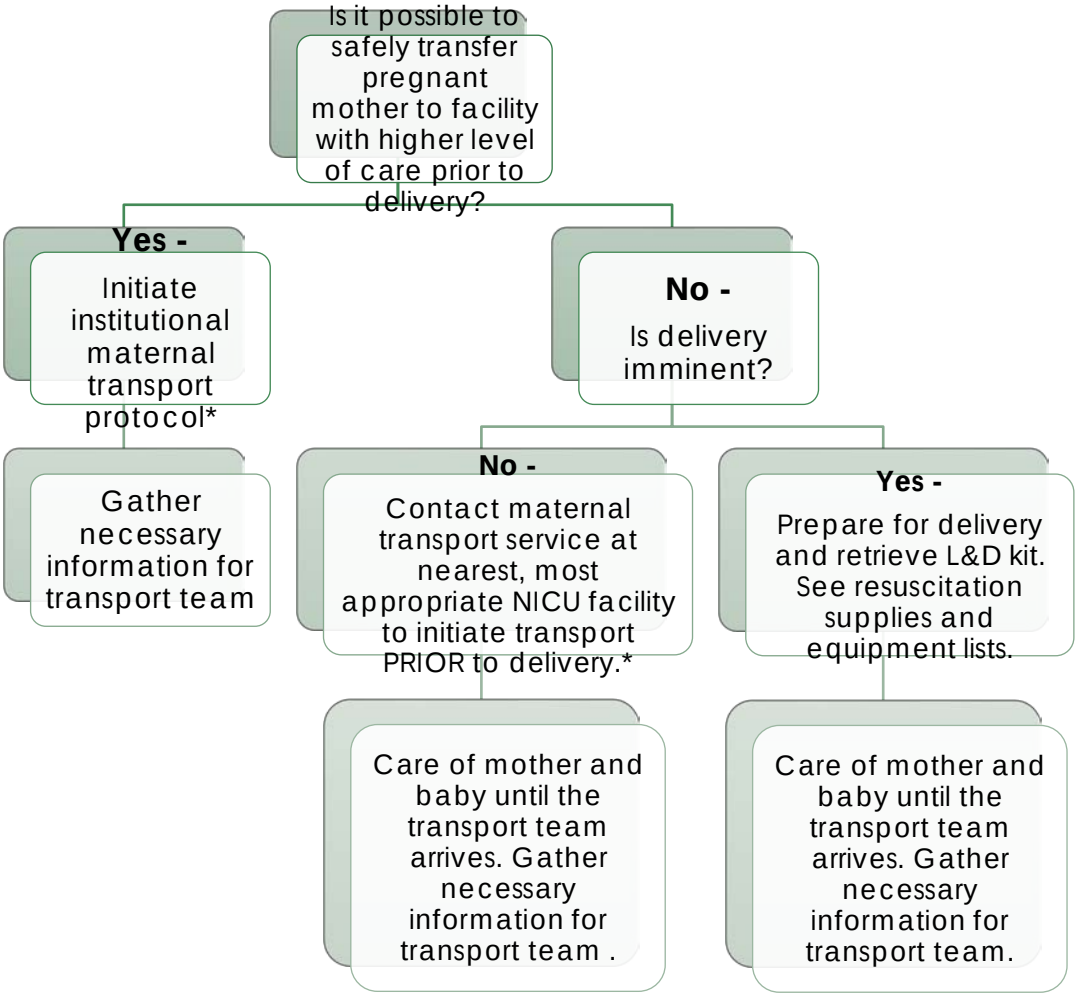
- Respiratory failure from any cause
- Suspected sepsis, meningitis, or other serious neonatal infections
- Hypoglycemia
- Seizures
- Hypoxemia with evidence of encephalopathy or other organ involvement
- Drug withdrawal

Referring Facility Responsibilities

1. If the transport is done by the referring hospital, the referring care provider and hospital retain responsibility until the treatment team arrives with the patient at the receiving hospital.
2. A ground ambulance is the most appropriate vehicle for the majority of maternal transports. If an alternate form of transportation is being considered, the referring provider should discuss this alternative with the receiving care provider at time of consultation.
3. the referring and receiving care providers based on the condition of the mother and/or fetus.
4. To avoid unnecessary delays in the emergency room or admitting office, all referrals should be directly admitted to the receiving obstetric unit.

Receiving Facility Responsibilities

1. The receiving care provider is responsible for the decision to accept the referring care provider's request for transport and make preparations at the receiving center. If unable to accept the transport, assistance should be provided to the referring care provider in locating appropriate care.
2. If the treatment team is sent by the receiving hospital, the receiving physician or designee assumes responsibility for patient care from the time the patient leaves the referring hospital.
3. Every patient accepted by the receiving center should be seen by a care provider within 30 minutes of arrival.
4. Communication with the referring care provider should occur following admission.
5. Every effort should be made to return the patient to the care of the referring care provider as soon as possible.



***Contact information for regional NICU/Maternal designated facilities.**

Maternal Resuscitation Checklist

Maternal Clinical Information for Transport

If neonatal transport team has not been deployed prior to delivery, *as soon as possible after delivery* – have team member initiate transport request at receiving institution. Ideally, that should be a provider that participated in the resuscitation – however, if that individual cannot make themselves available for phone call, the caller should be prepared to provide as much information as possible including:

- Name, address, and phone number of institution of delivering hospital
- Name of Attending Physician
- Estimated gestational age
- Any notable maternal or prenatal history (Labs, blood type, VDRL, Hep B, HIV, GC/Chlamydia, prenatal ultrasound)
- What resuscitation measures have been performed, or are continuing to be performed?
- Temperature, heart rate, respiratory rate, oxygen saturation
- Gravida (number of times pregnant)
- Parity (number of births)
- Previous uterine surgeries
- Allergies
- Abnormal ultrasound(s)
- Pelvic exam
- Medications currently on and given
- Intact membranes or ruptured
- Fetal evaluation status

Neonatal Clinical Information for Transport

If neonatal transport team has not been deployed prior to delivery, *as soon as possible after delivery* – have team member initiate transport request at receiving institution. Ideally, that should be a provider that participated in the resuscitation – however, if that individual cannot make themselves available for phone call, the caller should be prepared to provide as much information as possible including:

- Name, address, and phone number of institution of delivering hospital
- Name of Attending Physician
- Last name of infant
- Gender of infant
- Date and time of birth
- Vaginal or C-section delivery
- Estimated gestational age
- Birth weight
- Apgar scores (Appendix E)

- Any notable maternal or prenatal history (Labs, blood type, VDRL, Hep B, HIV, GC/Chlamydia, prenatal ultrasound)
- What resuscitation measures have been performed, or are continuing to be performed?
- Temperature, heart rate, respiratory rate, oxygen saturation

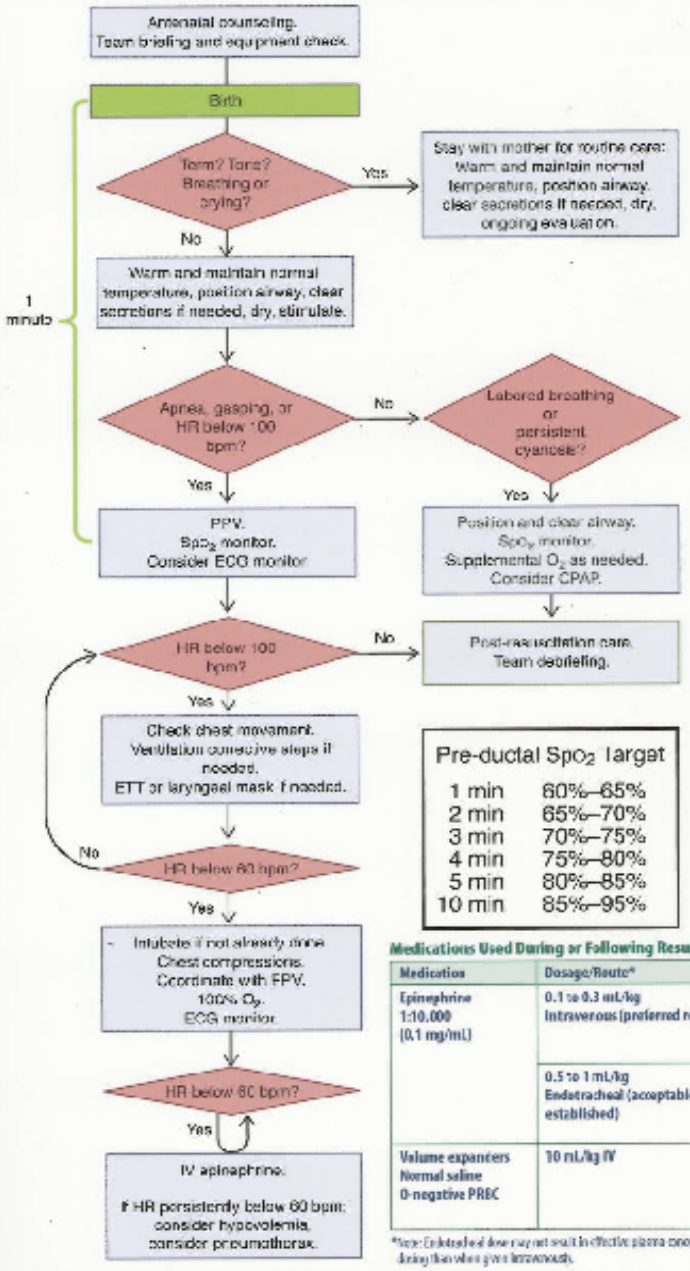
APGAR SCORING SYSTEM

	0 Points	1 Point	2 Points	Points totaled
Activity (muscle tone)	Absent	Arms and legs flexed	Active movement	
Pulse	Absent	Below 100 bpm	Over 100 bpm	
Grimace (reflex irritability)	Flaccid	Some flexion of Extremities	Active motion (sneeze, cough, pull away)	
Appearance (skin color)	Blue, pale	Body pink, Extremities blue	Completely pink	
Respiration	Absent	Slow, irregular	Vigorous cry	

Severely depressed	0-3
Moderately depressed	4-6
Excellent condition	7-10

Neonatal Resuscitation Program® - Reference Chart

The most important and effective action in neonatal resuscitation is ventilation of the baby's lungs.



A Airway
- Place head in "sniffing" position.
- Suction mouth, then nose.

B Breathing
- If apneic, gasping, or HR <100 bpm, give PPV at 40–60 breaths/min.
- Listen for rising heart rate for first 15 seconds of PPV.
- If HR not rising and chest not moving with PPV, do MR. SOPA until chest moves with PPV for 30 seconds.
- Attach pulse oximeter; consider cardiac monitor.
- Intubate or place laryngeal mask and give PPV for 30 seconds prior to starting compressions.
- Use CO_2 detector after intubation or insertion of laryngeal mask.

C Circulation
- Start compressions if HR is <60 bpm after 30 seconds of PPV with chest movement. Check HR every 60 seconds.
- Cardiac monitor is preferred method for assessing HR during CPR.
- Give 3 compressions: 1 breath every 2 seconds. Use 100% oxygen.
- Compress one-third of the anterior-posterior diameter of the chest.

D Drugs
- Give epinephrine if HR is <60 bpm after 60 seconds of CPR.
- Caution: epinephrine dosage is different for ET and IV routes.

MR. SOPA Corrective Steps

M and R	Mask adjustment, repositon airway
S and O	Suction mouth and nose, open mouth
P	Pressure increase
A	Alternative airway (ET tube or laryngeal mask)

Pre-ductal SpO_2 Target

1 min	60%–65%
2 min	65%–70%
3 min	70%–75%
4 min	75%–80%
5 min	80%–85%
10 min	85%–95%

Endotracheal Intubation

Gestational Age (weeks)	Depth of Insertion at Lips (cm)	Weight (g)	ET Tube Size (ID, mm)
23–24	5.5	500–600	Size 2.5 <1,000 g or <28 weeks
25–26	6.0	700–800	
27–29	6.5	900–1,000	Size 3.0 1,000–2,000 g or 28–34 weeks
30–32	7.0	1,100–1,400	
33–34	7.5	1,500–1,800	Size 3.5 >2,000 g or >34 weeks
35–37	8.0	1,900–2,400	
38–40	8.5	2,500–3,100	
41–43	9.0	3,200–4,200	3.5–4.0

Shaded rows adapted from Kemaley ST, Vanin N, Perone N. Endotracheal tube length for neonatal intubation. Pediatrics. 2008;121(3):568–573.

Medications Used During or Following Resuscitation of the Newborn

Medication	Dosage/Route*	Wt (kg)	Total Volume (mL)	Precautions
Epinephrine 1:10,000 (0.1 mg/mL)	0.1 to 0.3 mL/kg Intravenous (preferred route)	1 2 3 4	0.1–0.3 0.2–0.6 0.3–0.9 0.4–1.2	Give rapidly; follow IV dose with 0.5–1 mL normal saline flush. Repeat every 3 to 5 minutes if HR <60 with chest compressions.
	0.5 to 1 mL/kg Endotracheal (acceptable until IV established)	1 2 3 4	0.5–1 1–2 1.5–3 2–4	After ET dose, may give IV epinephrine as soon as IV route is established.
Volume expanders Normal saline O-negative PRBC	10 mL/kg IV	1 2 3 4	10 20 30 40	Not responding to steps of resuscitation and has signs of shock or history of acute blood loss. Give over 5 to 10 minutes.

*Note: Endotracheal dose may not result in effective plasma concentration of drug, so vascular access should be established as soon as possible. Drugs given endotracheally require higher dosing than when given intravenously.

American Heart Association®
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DEDICATED TO THE HEALTH OF ALL CHILDREN™

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NRP326

The recommendations in this publication do not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

Neonatal Resuscitation Checklist

Warm	• Preheated warmer • Warm towels or blankets • Temperature sensor and sensor cover for prolonged resuscitation • Hat • Plastic bag or plastic wrap (<32 weeks' gestation) • Thermal Mattress (<32 weeks' gestation)
Clear airway	• Bulb syringe • 10F or 12F suction catheter attached to wall suction, set at 80 to 100 mm Hg • Meconium aspirator
Auscultate	• Stethoscope
Ventilate	• Flowmeter set to 10L/min • Oxygen blender set to 21% (21% - 30% if <35 weeks' gestation) • Positive-pressure ventilation (PPV) device • Term- and preterm-sized masks • 8F feeding tube and large syringe
Oxygenate	• Equipment to give free-flow oxygen • Pulse oximeter with sensor and cover • Target oxygen saturation table
Intubate	• Laryngoscope with size-0 and size-1 straight blades (size 00, optional) • Stylet (optional) • Endotracheal tubes (sizes 2.5, 3.0, 3.5) • Carbon dioxide (CO_2) detector

	• **Measuring tape and/or endotracheal tube insertion depth table** • **Waterproof tape or tube-securing device** • **Scissors** • **Laryngeal mask (size 1) and 5-mL syringe**
Medicate	**Access to** • **1:10,000 (0.1 mg/mL) epinephrine** • **Normal saline** • **Supplies for placing emergency umbilical venous catheter and administering medications** • **Electronic cardiac (ECG) monitor leads and ECG monitor**

Additional Care:

- **Erythromycin ointment for both eyes**
- **IM Vitamin K (0.5 mg for birth weight < 1500 g, 1 mg for birth weight > 1500 g)**
- **Umbilical cord clamp**

Local and Regional Neonatal and Maternal Designated Hospitals

Maternal Facilities

- Carl R. Darnall Army Medical Center
  - o
  - o 254-553-8686
- AdventHealth Central Texas
  - o Level II
  - o
- Seton Medical Center Harker Heights
  - o Level II
  - o
- Baylor Scott & White Medical Center – Temple
  - o Level IV
  - o 254-724-2111

Neonatal Facilities

- Carl R. Darnall Army Medical Center
  - Level II
  - 254-553-8686
- McLane Children's Medical Center
  - Level IV
  - 254-935-KIDS
- AdventHealth Central Texas
  - Level II
  -
- Seton Medical Center Harker Heights
  - Level II
  -
- Baylor Scott & White Medical Center – College Station
  - Level III
  -
- Baylor Scott & White Medical Center – Hillcrest
  - Level III
  -

Stroke System

MISSION

The mission of the Central Texas Regional Advisory Council (CTRAC) Stroke System Plan is to decrease disability and mortality associated with acute stroke by utilizing an organized and integrated system wide approach for treatment and transport of acute stroke patients.

GOAL

- Establish guidelines for transportation of stroke patients.
- Develop a system that incorporates national recognized standards and guidelines for stroke care with all participants having a key role in the delivery and care of the stroke patient.
- Recognize a facility's capability to treat stroke patients according to the State designation rules.

- Establish a system with a mechanism to continually evaluate the quality of care the stroke patient receives within the system.

HOSPITAL STROKE DESIGNATIONS

Comprehensive Stroke Centers (Level I): Baylor Scott & White Medical Center – Temple

Primary Stroke Centers (Level II): AdventHealth Central Texas
Seton Medical Center – Harker Heights

Support Stroke Centers (Level III): There are no facilities currently designated as Support Stroke Centers in TSA L.

Non-designated Stroke Acute Care Facilities:
AdventHealth Rollins Brooks
Carl R. Darnall Army Medical Center (CRDAMC)
Central Texas Veterans Healthcare System – Temple
Coryell Health System
Hamilton General Hospital
McLane Childrens Medical Center - Baylor Scott & White

SEEKING STROKE DESIGNATION CRITERIA

When a facility in the Central Texas RAC Region decides to proceed with initial stroke designation or upgrade of current stroke designation, the facility shall formally notify the RAC of its plans to seek stroke designation and at what level. The facility must submit a letter of attestation (see below) signed by its CEO and Chief Medical Officer/Stroke Medical Director.

STROKE CENTER DESIGNATION LETTER OF ATTESTATION

This Letter of Attestation (LOA) is in effect on the date on which it is signed and remains in effect for a period of one (1) year. It can only be renewed one (1) time in a three (3) year period. All parties reserve the right to terminate this LOA at any time, with or without cause, upon written notice. Upon expiration thereof, this agreement will continue in force until either party notifies the CTRAC Medical Advisory Board in writing of its intent to terminate this agreement in which case it shall terminate thirty (30) days from the date of the notice.

Facilities signing this LOA are attesting that their facility or facilities meets the criteria of the surveying agency they will be using for their facility stroke certification and they will maintain the capabilities as specified in the chosen surveying agency's requirements/standards in this LOA.

Facility: _____

Stroke Center Designation (Choose Level):
Comprehensive (Level 1)/ Primary (Level 2) / Support (Level 3)
Surveying Agency (Choose Agency):
Joint Commission / Det Norske Veritas / TETAF (Level 3 only)
Hospital Administrative (CEO/ COO/ CNO): _____

Hospital Administrative Number: _____

Stroke Center Medical Director: _____

Stroke Center Medical Director Email Address: _____

Stroke Center Medical Director Contact Number: _____

Stroke Center Coordinator: _____

Stroke Center Coordinator Email Address: _____

Stroke Center Coordinator Contact Number: _____

This attestation **MUST** be signed by the Facility's Chief Executive Officer before submission to the RAC. Once approved the form will be signed by the RAC Executive Director, Medical Advisory Committee Chair, and Stroke Physician Champion. Then a copy will be returned to the requesting facility.

PREHOSPITAL CARE

GOAL

Suspected stroke patients will be identified, rapidly and accurately assessed, and based on identification of their actual or suspected onset of symptoms, will be transported to the nearest appropriate TSA L facility.

PURPOSE

In order to ensure the prompt availability of medical resources needed for optimal patient care, each patient will be assessed for the presence of abnormal vital signs, nationally recognized stroke scale and concurrent disease/predisposing factors.

SYSTEM TRIAGE

- Suspected stroke patients (positive prehospital screening, such as FAST, CPHSS) with **a negative LVO screening and a last known well of 4 hours or less** should be taken to the **closest alteplase-capable facility** within TSA L.
- Suspected stroke patients (positive prehospital screening, such as FAST, CPHSS) with **a positive LVO screening** (such as VAN, RACE) **and a last known well of 4 hours or less** should be taken to the **closest Comprehensive Stroke Center - unless such transport would delay hospital arrival to a thrombolytic capable facility by more than 30 minutes.**
- Suspected stroke patients outside the thrombolytic window of 4 hours since last known well, or those with a clear thrombolytic contraindication confirmed by online medical control who have a POSITIVE LVO screen should be taken to the **closest Comprehensive Stroke Center**.
- Suspected stroke patients with a last known well of greater than 4 hours who are negative on LVO screen or all suspected strokes greater than 24 hours may be taken to the closest most appropriate acute care facility.
- Prehospital providers should consider using aeromedical transport if doing so will significantly shorten transport time and improve time to intervention.
- Prehospital personnel should communicate any stroke scales done and the outcome when calling report on the suspected stroke patient.

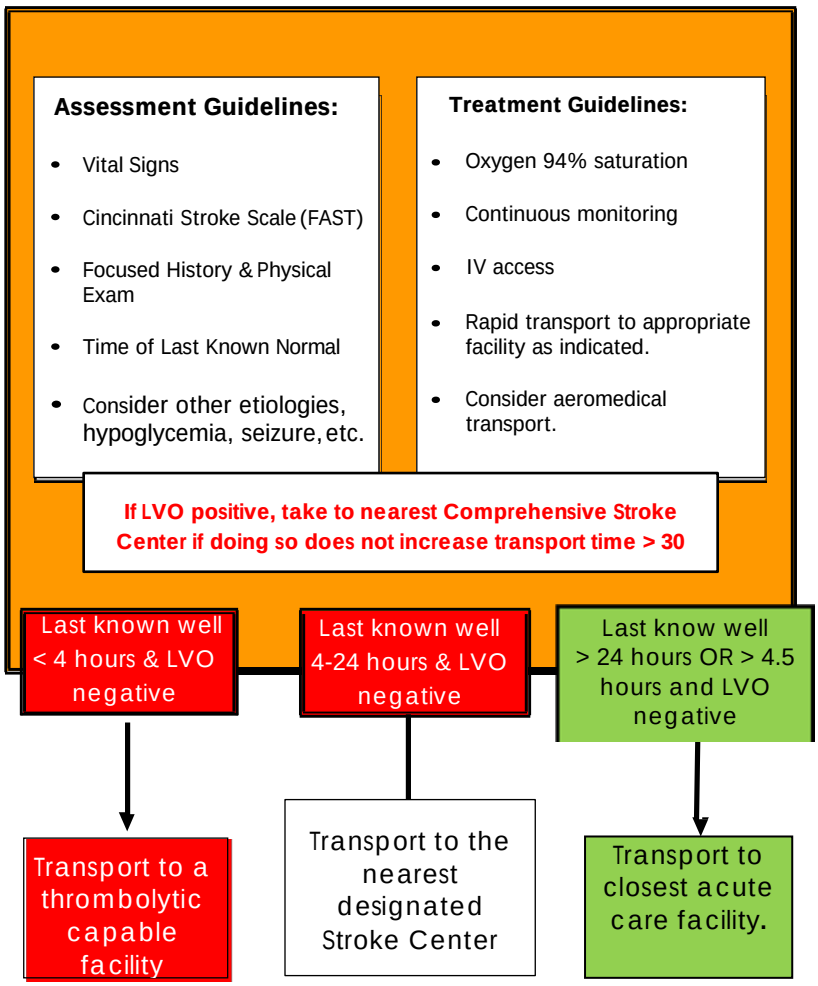
HELICOPTER ACTIVATION

GOAL

TSA L regional air transport resources will be appropriately utilized in order to reduce delays in providing optimal stroke care.

DECISION CRITERIA

- Aeromedical utilization should be considered when it can reduce transport time for patients with acute stroke. Refer to the above guideline to determine preferred patient destination and if this can change acceptable transport times to Comprehensive stroke centers, etc. Should there be any question whether to activate TSA L regional air transport resources, on-line medical control should be consulted for the final decision.
- The closest available helicopter should be utilized to reduce transport time.



FACILITY TRIAGE CRITERIA

GOAL

The goal of establishing and implementing facility triage criteria in TSA L is to standardize the definitions and classifications of stroke patients, which may allow for uniform patient reporting and assist with inter-facility transfer decisions for all facilities in the Region.

OBJECTIVES

1. To ensure that each stroke patient is rapidly identified, assessed, and if necessary, transferred to the nearest appropriate TSA L facility.
2. To ensure the prompt availability of medical resources needed for optimal patient care at the receiving facility.
3. To develop and implement a system of standardized stroke patient classification definitions.

DISCUSSION

- For TSA L, all the acute care facilities can administer thrombolytics in appropriate stroke patients.
- **If a stroke patient is LVO positive and within a 24-hour window since last known well, they should be immediately given thrombolysis if indicated and transferred to the closest Comprehensive Stroke Center.**
- If a stroke patient presents at a Primary Stroke Center or a thrombolytic capable acute care facility with a last known well of less than 4.5 hours and negative LVO screening, then alteplase should be started as appropriate. If the stroke patient needs a higher level of stroke care, the stroke patient should be transferred out within 90 minutes.
- If a stroke patient presents at an acute care facility with a last known well of 4.5 to 24 hours and a negative LVO screening, the patient should be transferred to a Primary or Comprehensive Stroke Center.
- If a stroke patient presents at an acute care facility with a last known well greater than 24 hours, the stroke patient may stay if the facility is able to provide appropriate rehabilitation.

REGIONAL PERFORMANCE IMPROVEMENT

Per the Texas Administrative Code Title 25, Part 1, Chapter 157, Subchapter G, Rule 157.133 Requirements for Stroke Facility Designation (t)(3), all designated stroke centers will participate in the CTRAC Regional Stroke Performance Improvement (PI). All thrombolytic capable facilities have agreed to provide the same regional performance improvement as designated stroke centers. Regional Performance Improvement from a military facility shall be based on patients transferred out for stroke upon request of Central Texas RAC.
The Medical Advisory Committee will serve as the Performance Improvement Committee for the Central Texas RAC (TSA L). This committee will determine the type of Stroke data and manner of collection, set the agenda for the CTRAC Regional Stroke Performance Improvement process within the regularly-scheduled meetings of the committee, and identify the events and indicators to be evaluated and monitored. Indicator identification will be based on high risk, low volume, and problem prone parameters. Indicators will be objective, measurable markers that reflect stroke resources, procedural/patient care techniques, and or systems/process outcomes. At a minimum the Region will collect the following data indicators:

FACILITY PI INDICATORS

- Facilities will report the mode of arrival of all stroke patients by POV, EMS, or transfer.
- Facilities that administer a thrombolytic will report the time the patient arrives at the facility to the time that thrombolytic administration is started. This indicator may also be referred to as “door to needle time”.

- All facilities transferring out a stroke will report the time the patient arrives at the hospital to the time the patient leaves the facility for transfer. This indicator may also be referred to as "door in/door out time".
- If a stroke patient is transferred for potential endovascular treatment, the facility will report where the patient was transported and whether the stroke patient received endovascular treatment.
- All facilities will report any stroke patients transferred out of TSA L and the reason for the transfer.

PREHOSPITAL PI INDICATORS

- All prehospital providers will report all suspected stroke patients that were transported out of TSA L directly from the scene.
- All prehospital providers will report how many suspected stroke patients were administered a primary stroke scale screening and/or an LVO screening.

TSA L & M Regional Stroke Transfer Monitoring Tool

	Pre-Transfer											Post-Transfer
Time:												
Initials:												
GCS and Pupil Assessment												
Eye Opening												
Verbal												
Motor												
Left Pupil (size/reaction)												
Right Pupil (size/reaction)												
New onset H/A	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
Vitals Signs												
Heart Rate												
Respirations												
BP												

Transfer Facility Information

Date:_____

Transfer Facility: _____

Receiving Facility:_____

Time of last known well/seen normal:_____

NIHSS: _____

For alteplase transfers:

alteplase started at _____ alteplase infusing at time of transfer? YES NO If not infusing at time of transfer, time infusion completed? _

PLEASE send 50 ml 0.9% NS flush bag to flush alteplase line with if infusion will complete during transport

Maintain Blood Pressure per Blood Pressure Guidelines

Has BP med been administered? YES NO

If YES: Medication & dose:_____

Time given: _____

Glasgow Coma Scale

Eye Opening	4 = Spontaneous 3= To speech 2= To pain 1= None
Verbal	5 = Oriented 4 = Confused 3 = Inappropriate words 2 = Moans 1 = None T = intubated
Motor	6 =Follows Commands 5 = Localizes 4 = Withdraws 3 = Decorticate 2 = Decerebrate 1 = Flaccid

Pupil Assessment

Reaction
B = Reactive/Brisk S = Reactive/Sluggish NR = Non-reactive

New onset headache (H/A)

Yes
No

PHYSICIAN ORDERS

RN Print Name: _____ RN Signature: _____

EMS Paramedic Print Name: _____

EMS Agency Name: _____

Patient label

TRAUMA SYSTEM

PREHOSPITAL TRIAGE GUIDELINES

GOAL

Patients will be identified, rapidly and accurately assessed, and based on identification of their actual or potential for serious injury, will be transported to the nearest appropriate CTRAC trauma facility.

OBJECTIVES

In order to ensure the prompt availability of medical resources needed for optimal patient care, each patient will be assessed for the presence of abnormal vital signs, obvious anatomic injury, mechanism of injury, and concurrent disease/predisposing factors.

DEFINITION

Trauma Patient—the patient is a victim of an external cause of injury that results in major or minor tissue damage or destruction caused by intentional or unintentional exposure to thermal, mechanical, electrical, or chemical energy, or by asphyxia, submersion, or hypothermia.

SYSTEM TRIAGE

Unless immediate stabilization (ABC's, cardiac arrest, etc.) is required, patients in CTRAC with the following injuries, with significant mechanism of injury, should be taken directly to the closest Level 1 / Level II Trauma Facility if ground transport time is ≤ 30 minutes. Also refer to the CTRAC Prehospital Trauma Triage Criteria Algorithm for additional high- risk considerations for transporting the patient directly to Scott & White Medical Center – Temple or Baylor Scott & White McLane Children's Medical Center:

- Penetrating injuries to head, neck, and torso
- Respiratory compromise, obstruction, and/or intubation
- GCS less than or equal to 12
- Unstable Vital Signs-Any **ONE** below:
  - SBP <90 (SBP <100 if patient >60 y/o)
  - RR <10 or >29 with distress
  - O_2 Sat <90%
- Traumatic Paralysis (**NOT** numbness/tingling)
- Amputation proximal to the wrist or ankle
- Two or more proximal long bone fractures (Femur, Humerus)
- Pelvic fractures
- Burns ≥ 20% BSA or ≥ 10% if under 6 years old (2^{nd} & 3^{rd} degree only)
- Transport to Burn Center if possible

- **Pediatrics** -Unstable Vital Signs - Any **ONE** below:
  - Tachycardia for age **PLUS** poor perfusion
  - BP not appropriate for age (70 + 2x age)
  - RR not appropriate for age
- Patients with the below **Mechanism of Injury** should be transported directly to the nearest appropriate:

Motor Vehicle Collision: With ejection High speed ≥ 40 mph Unrestrained ≥ 20 mph Death in same vehicle Extrication ≥ 20 minutes Auto vs. Pedestrian
MCC / ATV / Bike / Large Animal: Separation of rider Crash speed ≥ 20 mph
Falls: ≥ 20 feet 2x height of the child ≤6 yrs. old (minimum of 4 ft.)
Assault / Child Abuse
Burns Partial or full thickness
Crush Injuries (not hands or feet)

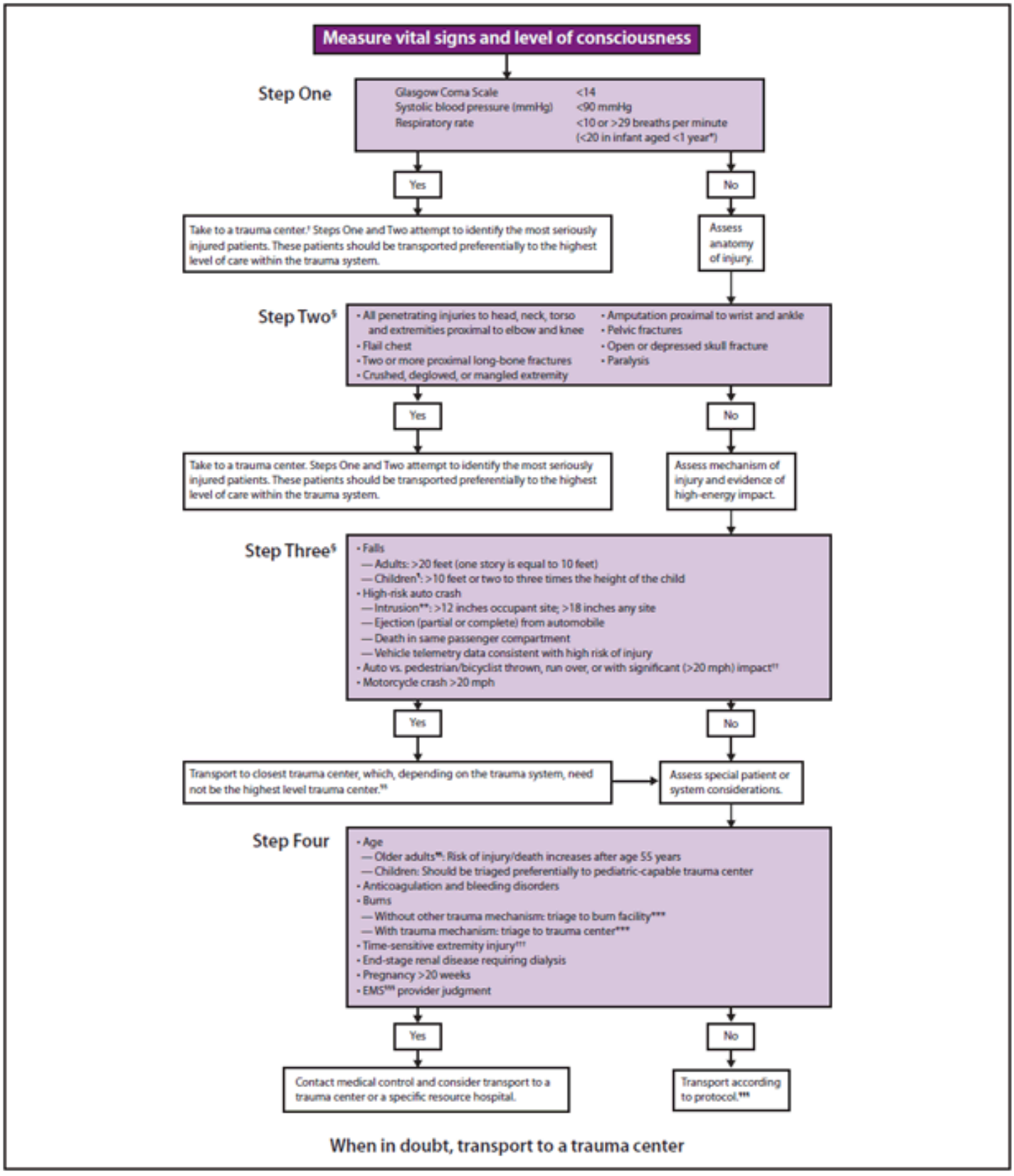
AIR MEDICAL ACTIVATION

GUIDELINES FOR AIR ACTIVATION FOR TRAUMA PATIENTS

- Anatomic Considerations
  - Penetrating Trauma to Head, Chest or Abdomen
  - Amputations (except Digits)
  - 2 or more long bone fractures or pelvis Fracture
  - Spinal cord injury
  - Major Burns > 20 % or burns to the Airway, hands, feet or genitalia
  - Depressed or open skull Fracture
  - Trauma patients requiring endotracheal intubation or having difficulty maintaining an airway
  - VS/ Physiologic Considerations
  - GCS <10 or deterioration of Mental Status
  - Significant Hypotension - B/P = or < 90 with signs of shock
  - RR < 10 or > 29

- HR < 60 or >120

- Mechanism of Injury
  - Falls > 3 X the Pt. Height or >20 feet
  - Auto-ped > 20 MPH
  - Ejection from MVC
  - Rollover MVC
  - Prolonged extrication > 20 min.
  - Death of another occupant in same vehicle
  - Multiple patients on scene


Measure vital signs and level of consciousness
Step One
Glasgow Coma Scale <14
Systolic blood pressure (mmHg) <90 mmHg
Respiratory rate <10 or >29 breaths per minute (<20 in infant aged <1 year*)
Yes
No
Take to a trauma center.† Steps One and Two attempt to identify the most seriously injured patients. These patients should be transported preferentially to the highest level of care within the trauma system.
Assess anatomy of injury.
Step Two§
• All penetrating injuries to head, neck, torso and extremities proximal to elbow and knee
• Flail chest
• Two or more proximal long-bone fractures
• Crushed, degloved, or mangled extremity
• Amputation proximal to wrist and ankle
• Pelvic fractures
• Open or depressed skull fracture
• Paralysis
Yes
No
Take to a trauma center. Steps One and Two attempt to identify the most seriously injured patients. These patients should be transported preferentially to the highest level of care within the trauma system.
Assess mechanism of injury and evidence of high-energy impact.
Step Three§
• Falls
— Adults: >20 feet (one story is equal to 10 feet)
— Children¶: >10 feet or two to three times the height of the child
• High-risk auto crash
— Intrusion**: >12 inches occupant site; >18 inches any site
— Ejection (partial or complete) from automobile
— Death in same passenger compartment
— Vehicle telemetry data consistent with high risk of injury
• Auto vs. pedestrian/bicyclist thrown, run over, or with significant (>20 mph) impact††
• Motorcycle crash >20 mph
Yes
No
Transport to closest trauma center, which, depending on the trauma system, need not be the highest level trauma center.§§
Assess special patient or system considerations.
Step Four
• Age
— Older adults¶¶: Risk of injury/death increases after age 55 years
— Children: Should be triaged preferentially to pediatric-capable trauma center
• Anticoagulation and bleeding disorders
• Burns
— Without other trauma mechanism: triage to burn facility***
— With trauma mechanism: triage to trauma center***
• Time-sensitive extremity injury†††
• End-stage renal disease requiring dialysis
• Pregnancy >20 weeks
• EMS§§§ provider judgment
Yes
No
Contact medical control and consider transport to a trauma center or a specific resource hospital.
Transport according to protocol.¶¶¶
When in doubt, transport to a trauma center

FACILITY DIVERSION

GOAL

CTRAC facilities should communicate "facility diversion" status promptly and clearly to regional EMS and trauma facilities through EMResource® in order to ensure that trauma patients are transported to the nearest appropriate alternate trauma system hospital.

ACKNOWLEDGEMENTS

CTRAC facilities, both designated and undesignated, should request diversion activation only when the resources or capabilities of that facility have been exhausted to the point that further EMS traffic would jeopardize the care and treatment of patients at that facility as well as any subsequent patient transported to that facility by EMS. It is recognized in advance that no diversion strategy can guarantee total compliance with these guidelines and it is likely that EMS will deliver patients to hospitals that have requested diversion activation. It is further understood that a request for diversion activation is honored as a courtesy by EMS. Patient's informed wishes should be honored. Each facility is responsible for defining facility-specific policies and procedures for implementation of these guidelines.

DEFINITIONS

1. **Transfer:** Movement of a patient from one hospital to another based upon the patient's need (inter-hospital transport) or request.
2. **Bypass:** Intentional movement of a patient from the scene to the most appropriate hospital, not necessarily the nearest hospital, based upon the patient's medical need.
3. **Diversion:** Intentional movement of a patient from the scene to an alternate hospital capable of providing appropriate care at the request of the diverting hospital due to lack of available resource or capability.
4. **Appropriate Facility**: A hospital, not necessarily the nearest hospital, with the resources and capability to care for a patient based upon the patient's medical needs.

AUTHORIZATION FOR DIVERSION STATUS IMPLEMENTATION AND DEACTIVATION:

➢ **Hospital administrator or designee**

Communication of diversion status:

- A hospital should communicate "facility diversion" status promptly and clearly too regional EMS and trauma facilities through EMResource®.

TIME PERIOD FOR DIVERSION STATUS:

- Diversion status is determined by each individual facility and is updated on EMResource® based on resolution of situation.
- In the event the hospital diversion status goes beyond 24 hours, the RAC will verify the need for continued diversion.

AUTHORIZATION FOR OVER-RIDE OF DIVERSION STATUS:

- EMS may over-ride a diversion status after consideration of the following:
  - The patient's clinical presentation
  - Distance and estimated time to an alternate appropriate facility
  - Inclement weather conditions
  - Resource availability and capability of the transporting prehospital provider
  - An Informed Patient Preference

FACILITY BYPASS

GOAL

Patients who have been assessed and determined to be medically unstable, unconscious, or at high risk of multiple and/or severe injuries will be safely and rapidly transported to the nearest appropriate Level I or Level II trauma center All other trauma patients will be safely and rapidly transported to the nearest appropriate trauma facility or nearest appropriate acute care facility within TSA L.

DECISION CRITERIA

Regional transport protocols ensure that patients who meet the triage criteria for activation of the CTRAC Regional Emergency Healthcare System Plan will be transported directly to the nearest appropriate trauma facility rather than to the nearest hospital except under the following circumstances:

1. If unable to establish and/or maintain an adequate airway, or in the case of traumatic cardiac arrest, the patient should be taken to the nearest acute care facility for stabilization.
2. A Level III or Level IV trauma facility may be appropriate if the expected scene to Level I Trauma Center transport time is excessive (> 30 minutes) and there is a qualified physician available at the facility's Emergency Department capable of delivering stabilizing care.
3. Medical Control may wish to order bypass in any of the above situations as appropriate, such as when a facility is unable to meet hospital resource criteria or when there are patients in need of specialty care (burns).
4. If expected ground transport time to the nearest appropriate Trauma Center is excessive (> 30 minutes) or if a lengthy extrication time (> 20 minutes) is expected, medical control or the EMS crew on scene should consider activating air transportation resources.

Note: Should there be any question regarding whether to bypass a facility, on-line medical control should be consulted for the final decision from the receiving facility.

FACILITY TRIAGE CRITERIA

GOAL

The goal of establishing and implementing facility triage criteria in CTRAC is to ensure that all regional hospitals use standard definitions to classify trauma patients in order to ensure uniform patient reporting and facilitate inter-hospital transfer decisions.

OBJECTIVES

1. To ensure that each trauma patient is identified, rapidly and accurately assessed, and based on identification and classification of their actual or potential for serious injury, transferred to the closest appropriate Level I or Level II trauma facility.
2. To ensure the prompt availability of medical resources needed for optimal patient care at the receiving trauma facility.

DISCUSSION

1. The Trauma Patient - The definition of the trauma patient in CTRAC is derived from the American College of Trauma Surgeon's definition of trauma. In CTRAC, the trauma patient is defined as one who is a victim of an external cause of injury that results in major or minor tissue damage or destruction caused by intentional or unintentional exposure to thermal, mechanical, electrical, or chemical energy, or by asphyxia, drowning, or hypothermia.
2. Facility Triage Criteria - Trauma patients are assessed in the pre-hospital setting and transferred to the closest appropriate trauma facility in accordance with the CTRAC Pre-hospital Trauma Triage Criteria. Upon admission to the hospital emergency department, trauma patients receive initial treatment and re- assessment of their condition. The severity of injury of the trauma patient in the initial treating emergency department determines the optimal level of trauma care needed. Inter-hospital transfer is initiated as appropriate according to CTRAC facility triage decision criteria.

TRAUMA FACILITY TRIAGE CRITERIA

Trauma patients meeting the below criteria should be considered high-risk and transfer to closest appropriate Level I or Level II Trauma Center should be initiated. Also refer to the CTRAC Facility Trauma Triage Criteria Algorithm for additional high-risk considerations for initiating early transfer:

ADULT PATIENT

- Penetrating injuries to head, neck, and torso
- Respiratory compromise, obstruction, and/or intubation
- GCS ≤ 13

- Unstable Vital Signs-Any **ONE** below:
  - ➢ SBP < 90 (SBP <100 if patient > 60 y/o)
  - ➢ RR < 10 or > 29 with distress
- O2 Sat < 90%Traumatic Paralysis (**NOT** numbness/tingling)
- Amputation proximal to the wrist or ankle
- Two or more proximal long bone fractures (Femur, Humerus)
- Pelvic fractures
- Burns ≥ 20% BSA or ≥ 10% if under 6 years old – **Transport to Burn Center if Possible**

PEDIATRIC PATIENT

- Penetrating injuries to head, neck, and torso
- Respiratory compromise, obstruction, and/or intubation
- GCS ≤ 13
- Traumatic Paralysis (NOTnumbness/tingling)
- Amputation proximal to the wrist or ankle
- Two or more proximal long bone fractures (Femur, Humerus)
- Pelvic fractures
- Burns ≥ 20% BSA or ≥ 10% if under 6 years old – **Transport to Burn Center, if possible**
- Pediatrics - Unstable Vital Signs - Any ONE below:
  Blood Pressure not appropriate for age (70 + 2x age):
  - ➢ Neonate: BP < 60
  - ➢ Infant (< 2 years) < 65
  - ➢ Child (2-5 years) < 70
  - ➢ Child (6-14 years) < 80
    Respiratory Rate not appropriate for age:
  - ➢ Rate < 10 or > 60
    Tachycardia for age PLUS poor perfusion Pediatric Trauma Score > 9
- High energy event, such as
  A. Ejection from
    - Vehicle
    - ATV
    - Large Animal
    - Motorcycle
    - Bicycle

  B. Significant fall
    - 2x the height or
    - > 10ft if < or = 6 yrs. old

  C. Auto-pedestrian impact
  D. Significant assault

INTER-FACILITY TRANSFER GUIDELINES

GOAL

The goal for establishing and implementing inter-hospital transfer criteria in CTRAC is to ensure that those trauma, stroke or STEMI patients requiring additional or specialized care and treatment beyond a facility's capability are identified and transferred to an appropriate facility as soon as possible.

OBJECTIVES

1. To ensure that all regional hospitals make transfer decisions based on standard definitions which classify trauma, stroke or STEMI patients according to CTRAC facility triage criteria.
2. To identify trauma, stroke, or STEMI treatment and specialty facilities within and adjacent to CTRAC.
3. To establish treatment and stabilization criteria and time guidelines for CTRAC patient care facilities.

DISCUSSION

The level of trauma care resources required for **poly-**trauma patients is outlined in the CTRAC facility triage criteria and pre-hospital triage criteria. Scott & White Medical Center – Temple is the Lead Trauma Facility in CTRAC and accepts all poly-trauma transfer patients from any requesting CTRAC facility. A toll-free number has been established and distributed to all CTRAC emergency medical and hospital providers:

BAYLOR SCOTT & WHITE MEDICAL CENTER – TEMPLE

TRAUMA TRANSFER PHONE LINE: 1–877-783-6422

Medical personnel calling this number receive an "automatic acceptance" for **poly-**trauma patients after speaking with the on-call **Attending Trauma Surgeon** or **Staff Emergency Medicine Physician**.

Severely injured trauma patients should be immediately transferred to the nearest appropriate Level I or Level II Trauma Facility. Patients with less life-threaten injuries should be initially transported to the closest trauma facility for stabilization. If admission is necessary, the patient should be transferred to the closest Level I or Level II Trauma Facility within (2) hours from the time the patient arrived at that facility. The CTRAC Performance Improvement program will monitor all delay in trauma transfers out (>2 hours) for acute patients, trauma transfers outside CTRAC, and any ICU trauma patient admissions (**except the Level I and Level II trauma facilities**).

DEFINITION – AS NOTED IN DSHS HEALTH & SAFETY CODE, RULE 157.2

- ✓ Major is defined as an ISS score of 9-14
- ✓ Severe is defined as an ISS score of >/= 15

IDENTIFICATION OF TRAUMA PATIENTS & TRAUMA TRANSFERS

- Trauma patients and their treatment requirements for optimal care are identified in the CTRAC facility triage criteria and pre-hospital triage criteria.
- Written transfer agreements are available between all CTRAC hospital facilities, and hospital facilities in adjacent regions.
- Trauma patients with special needs may be transferred to the nearest appropriate trauma facility or assessment and initial treatment by the trauma team. The CTRAC initial-receiving hospitals.Patient transfer should not be delayed due to transfer of chart.
- Pediatric burn patients may be transferred directed to these facilities when appropriate:
  - Children's Medical Center of Dallas (Level I Trauma/Pediatric) – TSA E, Dallas
  - Dell Children's Medical Center (Level I Trauma/Pediatric) – TSA O, Austin
- May choose to transfer patients with special needs (burns) directly to these facilities, bypassing the Lead Level I Trauma Facility when appropriate. Below are lists of possible facilities that may be utilized outside CTRAC:
  - Parkland Health & Hospital System (Level I Trauma/Burn) – TSA E, Dallas
  - San Antonio Military Medical Center (Level I Burns) – TSA P, San Antonio
  - University Medical Center (Level I Trauma/Burns) – TSA P, San Antonio
  - University Medical Center (Level I Burns) – TSA B, Lubbock
  - Dell-Seton Hospital (Level I Trauma) – TSA O, Austin

TRAUMA PATIENT TRANSPORT

Trauma patients in CTRAC are transported according to patient need, availability of air transport resources, and environmental conditions. Ground transport via BLS, ALS, or MICU ground ambulance is available throughout the Region. Air Medical transport is also available in this Region.

Emergency Response Employee (ERE) Regional Exposure Plan

The CTRAC, in collaboration with Bell and Milam County Public Health, and Department of State Health Services (DSHS) Region-7, has developed this document to provide a common, consistent method for emergency response employees (herein referred to as EREs) to obtain proper evaluation and necessary treatment when exposed to potential pathogens or infectious diseases in the course of their duties. This process is available for use by all public safety, including law enforcement, firefighters, EMS, and other responders as defined in HSC 81.003. The bulk of the verbiage contained herein focuses on blood-borne pathogens but the process may be adapted to any high consequence infectious disease that the emergency response employee may have been exposed to. As with any regional document, the user assumes all responsibility and must ensure that this document conforms to all necessary laws, procedures and rules unique to their own agency or entity.
Each agency is strongly encouraged to have a local review by leadership and or legal prior to adopting the use of this document.

SECTION 1: POST EXPOSURE INSTRUCTIONS FOR THE EMERGENCY RESPONSE EMPLOYEE (ERE)

1. Initial ERE Care / Self Care
   a. If a splash or topical exposure to a body fluid: Wash wounds/non-intact skin with soap and water for at least 2 minutes. If soap and water is not immediately available blot off the body fluid and then use an alcohol based skin sanitizer according to manufacturer instructions.
   b. For mucous membrane exposures, i.e. mouth, nose, etc., flush mucous membranes with water or saline for at least 5 minutes.
   c. If the eyes are involved, irrigate with normal saline or water for at least 5 minutes. Remember to carefully remove contact lenses if wearing.
   d. If there is any significant associated injury or illness, the responder should be treated as appropriate.
   e. If another responder of equal rank/discipline is immediately available, consideration should be given to removing the exposed ERE from immediate activity.
2. If the source patient is being transported to the hospital, whenever possible the exposed ERE should report to the same hospital as the source patient. This will facilitate paperwork and testing of the source patient.
   a. If the source patient is not transported (deceased, refuses, etc.) see section 2 below.
   b. If the exposed ERE is not presenting to the same hospital as the source patient, an agency representative MUST go to the source patient's destination hospital to present necessary paperwork for source patient testing.
3. Source patient testing
   a. The exposed ERE or representative should contact the Emergency Department (ED) Charge Nurse (RN) and inform them of the source patient and an ERE exposure.
   b. The following forms should be filled out and the Charge RN provided a copy:
      i. Form A – Exposure Event Reporting Form – This form notifies the facility that an exposure has occurred and gives information related to the exposed ERE, the source

patient and the designated agency infection control officer (DICO) contact information.

ii. Form B – Source Patient Consent to Test and Release Results – This form notifies the patient that they are being asked to provide a sample (blood, urine, etc.) due to an exposure to an ERE. Should the source patient refuse to sign, see section 2 below.

iii. Form C – Facility Notice – This form provides the facility with "official notice" of the request to test the source patient including applicable law. It also should contain the workers comp injury information for the ERE so the charges for source patient testing can be billed to the agency, not the source patient which is not allowed by law.

c. As an alternate or additional consideration, departments should examine the cost impact and feasibility of obtaining new-generation rapid HIV tests. Either on supervisory vehicles or

via a rapid deployment plan, new-generation HIV testing products such as the OraQuick system employ a mouth swab kit to provide a rapid result for HIV testing.

i. The negative predictive value of some of these products is as good as 99.7%.

ii. The department should consider how they will give source patients the results of any positive tests. A positive HIV test for the source patient may have a profound psychologic effect not to mention the need for future healthcare.

iii. Source patients testing positive should be offered transport to a healthcare facility for further HIV education and counseling and this test does not eliminate the need for hepatitis or other testing that requires blood examination.

4. ERE Medical Evaluation and Care

a. As soon as is reasonably possible the ERE must be evaluated by a physician. The primary objective is to assess the "risk" involved with the exposure and the needed plan for post-exposure prophylaxis (PEP**). The most time sensitive issue regarding a blood-borne pathogen exposure is determining the need for HIV prophylaxis!** This may be accomplished via discussion of the incident and determination of calculated risk with the infection control officer or MD or rapid source patient testing, or both.

i. For general information on PEP for various types of exposures, see page 8 below.

ii. It is important to note that although effective for up to 48 hours, PEP for HIV exposure is most effective when initiated within 6 hours following exposure.

b. The ERE should also have baseline laboratory testing performed. This will include tests to document that the ERE does not already have the disease of concern and also a baseline on blood counts and liver function tests, etc.

i. During business hours the ERE may follow the agency's workers compensation injury plan that may include being seen in a city or contract clinic. The agency should verify that the clinic or contracted facility has the ability to counsel the ERE on the exposure and provide or prescribe the needed PEP regimen.

ii. After hours, the ERE will likely need to be registered and seen as an emergency department or urgent care patient to achieve this.

iii. Some exposures such as suspected meningitis and tuberculosis do not require immediate medical evaluation. In those cases consultation with the DICO/RICO or agency physician may be appropriate to discuss the timeline of ERE evaluation.

c. The agency should assist the ERE with obtaining and starting the PEP regimen if prescribed and authorized by the evaluating physician. Return to duty status should be discussed with the treating provider and the following should be considered:
   i. The agency should also consider placing their approved "return to work" document with these exposure forms and policies. In some cases the treating provider will release the provider back to duty immediately.
   ii. The agency should also consider the psychologic stress associated with an exposure. Especially with needle sticks or other high risk exposures, the responder may have significant anxiety and concern. The agency should evaluate the responder's continued fitness for duty that day and allow the responder to take leave if necessary.

SECTION 2: SOURCE PATIENT TESTING OF NON-TRANSPORTED PATIENTS

Non-transported patients pose an increased challenge to first responders who have an infectious exposure. The following process should be followed for those patients.

1. The ERE should follow the same self-care steps outlined in section 1, number 1 above.
2. The same departmental notifications should take place to the agency supervisor and DICO. Supervisory assistance should typically be requested for evaluation of these patients.
3. Contact the agency DICO and/or the RICO, consultation with a physician should be held to discuss the nature and testing needs related to the exposure. In some cases immediate testing of the source patient is not needed, i.e. suspected meningitis exposure or tuberculosis exposure.
4. Departments should identify a healthcare entity with lab services that will provide source patient testing. The following are considerations for these cases:
   a. The department should pre-arrange to cover the expenses incurred and should not charge any costs to the source patient.
   b. The healthcare entity should be able to test for the anticipated problems, i.e. HIV, hepatitis testing, chest x-ray, etc.
   c. The healthcare entity should agree to provide patient results in accordance with the release of information provided to the patient and have any additional needed paperwork drafted for their company/facility.
   d. Some agencies may also develop a protocol or process with a lab company such as Lab Corp or other that will allow them to draw source patient tests and take to the lab. Usually a physician order will need to be provided.
5. Should the agency determine that source testing of the patient is necessary:
   a. Consideration should be given to stocking new generation rapid HIV tests on supervisory vehicles or via a rapid deployment plan for an exposed responder. As mentioned above, this would allow rapid testing of the source patient and then referral on a non-urgent basis for testing for hepatitis B/C. Remember, a positive HIV test for the source patient may have a profound psychologic effect not to mention the need for future healthcare. Source patients testing positive should be offered transport to a healthcare facility for further HIV education and counseling.
   b. Educate the patient about why testing is necessary. Offer either the home testing process to the patient or offer transportation to the healthcare entity that can perform the testing.

6. If a patient refuses to provide source patient testing, the department should immediately contact the appropriate local health authority for assistance.
    a. Do not delay treatment and prophylaxis for the exposed ERE. Proceed with evaluation and treatment.
    b. It is against the law for a source patient to expose a first responder and refuse to participate with testing in accordance with HSC 81.050. Deliberately exposing a public safety responder is a criminal offense per Penal Code, Title 5, §22.11. If the SP refuses testing, refer to Code of Criminal Procedure Article 18.22 and 21.31.
    c. The department should seek assistance from either the local health authority (Bell County or Milam County Public Health in CTRAC Region) or DSHS Health Service Region 7.
        i. Public health will process the information and proceed with a legal process to have the source patient tested.
        ii. This may take days to weeks depending on the court system. Do not delay treatment of the ERE.
7. In the event the source patient is **DECEASED**, the department should have a relationship with a testing laboratory that will evaluate provided lab samples. The funeral home or forensic lab is required to allow access to the source patient's body to recover samples for source patient testing.
    a. Notify the RICO/DICO and appropriate physician for assistance.
    b. Completing this process in a timely fashion is critical to obtain samples before embalming or cremation.

SECTION 3:INFORMATION FOR TREATING PHYSICIANS

Dear Colleague,

Thank you for taking care of our exposed emergency response employee (ERE) today. We have prepared this guide for your use if you would like to utilize it. By no means is it meant to try and supersede or replace your expert medical judgment. This document has the requested workup and treatment for the ERE that is suggested based on currently available generally accepted medical practice. Should any further discussion be necessary with a physician colleague, the ERE's agency can provide you with contact information for their physician medical director. Also I am available to assist anytime. (806) 777-2539. Thank you again for caring for our emergency employees.

Taylor Ratcliff, MD, FACEP, FF/EMT-P, EMS Medical Director

In addition to any emergency care and treatment you feel appropriate, for the following exposures the following is considered as the occupational best practice:

1) Exposure to Blood Borne Pathogen
    a. Physician to evaluate nature and type of exposure and determine minimal, moderate or high risk.

b. Excellent decision support tools and online consultation during certain hours can be found at
   i. http://nccc.ucsf.edu/clinician-consultation/pep-post-exposure-prophylaxis/
   ii. http://nccc.ucsf.edu/clinical-resources/pep-resources/pep-quick-guide/
c. Baseline lab testing of the exposed ERE to include baselines for:
   i. CBC, CMP
   ii. HIV Ag/Ab or HIV Ab
   iii. HCV Ab or Hepatitis Panel (may need to include HBV if not vaccinated)
d. Joint decision making regarding risk-benefit of taking post-exposure prophylaxis medications depending on the type of exposure.
   i. PEP quick guide above has excellent resources on talking points, percentages, etc.

2) HIV Exposure
a. If PEP medications are agreed upon, current CDC recommendations for HIV prophylaxis include: (note 2 drug regimens are no longer recommended)
   i. Truvada™ 1 tablet by mouth once daily **PLUS**
   ii. raltegravir (Isentress®; RAL) 400mg by mouth twice daily **OR** dolutegravir (Tivicay™) 50mg PO once daily
   iii. Duration 30 days
b. Please make all efforts to initiate therapy if appropriate within the shortest amount of time. Six hours or less from the time of exposure is preferred. This may involve ordering the first dose of medication while caring for the ERE in the hospital.
c. If PEP is decide upon, please prescribe enough medication until the ERE can comfortably be seen by the agency's workers compensation provider or their personal doctor.
d. Recall that most of these cases will be covered under the employer's workers compensation insurance so please indicate "workers comp" on the Rx.

3) Hepatitis B Exposure
a. If the exposed ERE has completed the HBV vaccine series and is a known responder with positive antibody titers (HBsAb ≥10 mIU/mL) no action is necessary.
b. For the actions below, the HBIG has been shown to be effective up to 7 days following exposure. As such the MD and ERE may want to discuss the risk/benefit of HBV treatment pending testing of the source patient.
c. If the exposed ERE has completed the HBV series but has not ever had a titer level checked:
   i. Draw HBsAb level
   ii. If < 10mIU/mL with HBV infected source patient
      1. HBIG 0.06mL/kg ASAP (max dose: 5mL). HBIG is considered effective up to a week after occupational exposures.
      2. HBV 4th vaccine dose (booster)
d. If the exposed ERE is known to be a HBV vaccine non-responder
   i. Draw HBcAb (total)
   ii. HBIG 0.06mL/kg ASAP (max dose: 5mL). HBIG is considered effective up to a week after occupational exposures.
   iii. Two doses one month apart.
e. Never received HBV vaccine or only partially vaccinated

i. Draw HBcAb (total)
ii. HBIG 0.06mL/kg ASAP (max dose: 5mL). Begin HBV vaccine series.

4) Hepatitis C Exposure
   a. No acute intervention other than baseline testing is required. Follow up testing will be arranged by the ERE's medical provider.
5) Source Patient Testing
   a. Although this should be arranged by your facility's confidential process, if your input is requested into source patient testing, the following is encouraged:
   b. HIV Ag/Ab or HIV Ab (rapid HIV testing preferred if accessible)
      i. If SP's rapid HIV test is positive, assume this is a true positive and send confirmatory/supplemental testing.
   c. HCV Ab or HCV RNA (HCV viral load). CDC prefers HCV RNA
   d. HBV surface Ag

SECTION 4: QUICK REFERENCE TABLE

Table 1: Below is a general description of actions/treatment that may result from an exposure based on the pathogen:

Possible Pathogen	What Will Be Done	Required Labs for ERE	Required Labs for Source Patient	Treatment
HIV	Initial blood draw at hospital on source patient and first responder	• 4th generation rapid HIV • HIV 1/2 Ab/Ag (antibody/antigen) • HIV Ab (Antibody) Genotype immunoassay	• 4th generation rapid HIV • HIV 1/2 Ab/Ag (antibody/antigen) • HIV Ab (Antibody) Genotype immunoassay	ED physician will determine need for treatment. Treatment window is 48 hours. Efficacy is 79% within 2 hours of exposure.
Hep C	Initial blood draw at hospital on source patient and first responder	Hep C Ab (Antibody)	Hep C Ab (Antibody)	None initially. If source patient is positive, first responder will be referred to ID specialist
Hep B	Initial blood draw at hospital on source patient and first responder	Hep B Ag/Ab (antibody/ antigen)	Hep B Ag (antibody/ antigen)	None initially. If source patient is positive, first responder will be re-checked for immune status
Meningococcal Meningitis	Infection Control will follow up on meningitis diagnosis on source patient			If diagnosis is positive, prophylaxis with antibiotics will be initiated. Treatment window is 24 hours to 2 weeks
TB	Infection Control will follow up on TB diagnosis on source patient			Repeat skin test in 6-8 weeks. If positive, begin treatment
MRSA	Consultation with first responder			

This table is not meant to be all inclusive. For issues and concerns not contained within, please contact your DICO, RICO, physician medical director or personal physician.

CTRAC ERE Exposure Event Reporting Form Form "A"

CONFIDENTIAL

HOSPITAL INFECTION CONTROL REPRESENTATIVE SHOULD CONTACT THE APPROPRIATE HEALTH DEPARTMENT OR THE DSHS REGION 7 OFFICE WITH RESULTS AND WILL NOTIFY THE ERE'S AGENCY DESIGNATED INFECTION CONTROL OFFICER (DICO) TO PROVIDE SOURCE PATIENT BASELINE TEST RESULTS.

FIRST AID FOR THE EXPOSED RESPONDER MUST BE DONE AS SOON AS POSSIBLE FOLLOWING A PATHOGEN EXPOSURE. CLEAN CONTAMINATED AREAS THOROUGHLY WITH SOAP & WATER OR FLUSH/RINSE/IRRIGATE EXPOSED MUCOUS MEMBRANES THOROUGHLY.

REPORT OF POSSIBLE EXPOSURE OF EMERGENCY RESPONSE EMPLOYEE (ERE)

ERE who have an exposure listed in #2 below must complete this form immediately. A copy of the completed form should be given to the Emergency Department Charge Nurse where the source patient is delivered and the original returned to the designated infection control officer (DICO) of the ERE agency.

ITEMS 1-5 TO BE COMPLETED BY FIRST RESPONDER PERSONNEL:

1. The exposure described in #2 below occurred during the care/management of the following patient/person (**SOURCE**):
   Source Patient Name:_____ [ ] Male [ ] Female DOB___/____/____

   Transported to:_____ on Date / Time___/____/____@_____ AM / PM

   Suspected Disease:_____ Other Responders Involved? [ ] Yes [ ] No Who: _____

2. Exposure Type:
   What were you exposed to:
   [ ] Blood [ ] Feces [ ] Urine [ ] Saliva [ ] Vomitus [ ] Sputum [ ] Other _____
   How Were You Exposed?
   [ ] Coughing [ ] BVM Use [ ] Mouth to Mouth [ ] Intubation [ ] Throat Exam [ ] Needle Stick

   [ ] Puncture Wound [ ] Splash [ ] Open Wound [ ] Non-intact Skin [ ] Other _____
   Specifically, where were you exposed?
   [ ] Face [ ] Hands [ ] Arms [ ] Legs [ ] Chest [ ] Abdomen [ ] Eyes Nose [ ] Mouth
   Was personal protective equipment (PPE) utilized?
   [ ] Gloves [ ] Mask [ ] Face Shield [ ] Gown [ ] Other _____
   How did the exposure occur? _____

3. NAME OF ERE EXPOSED:
   SS#: XXX - XX -_____ PHONE: Home:_____ Work: _____

   Unit / Station #_____ Shift:_____ Agency Case/Run#_____

   Last Tetanus Immunization:_____ Year of Hep. B Vaccination:_____ Measles/Rubella_____

4. ERE Agency Designated Infection Control Officer Information:

   Name: _____ Address: _____ City/State/Zip: _____

   Telephone #:_____ E-mail: _____

5. Signature of Person Reporting Exposure:_____ Date Form Completed:___/___/_____
6. Name / Signature of Receiving Hospital Agent: _____ _____

Provide Copy to ED Charge Nurse and retain copy for the DICO.

v. 2.2018

TO BE COMPLETED BY THE RECEIVING FACILITY'S INFECTION CONTROL / EPIDEMIOLOGY REPRESENTATIVE:

DATE SPECIMEN COLLECTED:_____/_____/_____ **DISEASES IDENTIFIED EXPOSING ERE? YES / NO**

IF YES, WHICH DISEASES IDENTIFIED: _____

RESULTS REPORTED TO: Appropriate local health authority (name):_____ on_____/_____/ _____

RESULTS REPORTED TO: (Outside Bell/Milam County) DSHS Health Service Region-7 254-899-0405 (fax) on_____/_____/ _____

RESULTS REPORTED TO: Agency Designated Infection Control Officer (DICO) on_____/_____/_____.

Name / Title of Person Completing this Section: _____

CTRAC ERE
Exposure Event Source Patient Consent Form B

Consent for Testing Due to Exposure of Emergency Response Employee (ERE)

SOURCE PATIENT CONSENT TO TEST AND RELEASE RESULTS

I understand that I have been requested to have this test because a healthcare or public safety worker herein referred to as an emergency response employee (ERE) has been exposed to my blood or other body fluid and because the United States Centers for Disease Control (CDC) and the Texas Department of State Health Services (DSHS) recommend testing me, the source patient, following such an exposure.

I understand that a negative result from this test does not conclusively exclude the possibility of infection with the HIV (AIDS) virus. All positive test results will be confirmed by a laboratory accepted confirmation test to check for laboratory error. I understand that a positive result from this test will be reported to the Texas Department of State Health Services and the exposed ERE s infection control officer as required by law. I understand and agree that the results may be disclosed as necessary to assure appropriate follow up care of the ERE exposed to my blood, body fluids, or specimen. I understand that everyone involved below will protect the confidentiality of these test results in accordance with federal HIPAA laws. There will be no disclosure to unauthorized parties without my express written consent. I understand that the results of this test will not be recorded in my medical record and that the results will be released only to persons or entities to which I authorize the release of my lab results.

I affirm that I have been given the opportunity to ask questions which have been answered to my satisfaction. I have read the above and have had the opportunity, if requested, to discuss this information with my treating physician or the on-call designated infection control physician, Dr._____ _____. I am aware of the test s limitations and the potential consequences of positive and negative test results. My signature indicates that I give my informed consent to have the HIV, HBV and HCV screening test, and/or any test for reportable disease(s) performed on a sample of my blood, body fluid, or specimen (HSC 81.095) and the results provided to (ERE Agency Name)_____and the local health authority as required by law.

I, (Source Patient)_____, hereby give permission to (Facility Name)____to test my blood and/or specimen for reportable disease(s) to include, but not limited to: Hepatitis B, Hepatitis C and the presence of the HIV antibody which is associated with Acquired Immune Deficiency Syndrome (AIDS).

I further give my permission for (Facility Name)

_____

to disclose necessary test results to the ERE s designated agency infection control officer (DICO) in order to provide needed care and treatment of the exposed ERE.

Signed this ____ day of_____ , 20 ___

Affix MRN sticker here if

Source Patient Signature:_____

Witness Name/Title/Signature: _____

CTRAC ERE
Exposure Event Facility Notice Form C

Facility Notice of Official Testing Request

This document is to serve as official notice to (Facility Name)_____, herein known as facility , that facility has on their premises a source patient who has exposed an emergency response employee in the course of their duties as defined in Texas HSC 81.003. It is the opinion of (Agency Name) _____that a bonafide communicable disease exposure has occurred as defined by The Texas Communicable Disease Prevention and Control Act (Act), §81.048. It is hereby requested that this facility comply with official source patient testing and reporting as outlined in Texas Administrative Code, Title 25 Rule §97.11.

Please find below the appropriate workers compensation or self-insured insurance information pertaining to this exposure as we request the facility not charge the source patient for costs of associated testing.

Workers Compensation / Health Insurance Information:
Name of Insured: _____
Agency Name: _____
Address:_____Phone:_____
Attention: _____

Name of Workers Compensation / Insurance Company: _____
Address:_____Phone:_____ Policy #:_____Group #: _____
Attention: _____

The following legislation may be helpful to the facility treating the emergency response employee:

Texas Health and Safety Code 81.048
- Requires the hospital to notify the emergency response employee (or designated infection control officer) as well as the local or regional health department about positive or negative findings related to an exposure of an emergency response employee.

Texas Health and Safety Code 81.095
- Describes the types of personnel that constitute emergency response employees and authorizes the testing of blood or body fluids in the case of bonafide exposure to the response employee. It also stipulates that the source patient may be tested without their consent.

Texas Administrative Code Title 25; 97.11
- Defines terms and conditions related to the exposure of an emergency response employee.
- Defines the reporting requirements of the facility.

Multi-Patient Event Response

GOAL

Patients will be identified, rapidly and accurately assessed, and based on identification of their actual or suspected onset of symptoms, will be transported to the nearest appropriate Heart of Texas facility.

PURPOSE

In order to ensure the prompt availability of medical resources needed for optimal patient care, each patient will be assessed for the presence of abnormal vital signs and injuries. This portion of the Emergency Healthcare System Plan is established to augment the Trauma System as part of this Plan. This portion will be utilized when any area is overwhelmed and needs assistance from the rest of the Region.

This Plan is based upon the concept that the emergency functions of the public health and medical will generally parallel their normal day-to-day functions. To the extent possible, the same personnel and material resources will be employed in both cases. Some day-to-day functions that do not contribute directly to the emergency operation may be suspended for the duration of the emergency and the resources that would normally be committed to those functions will be redirected to the accomplishment of emergency tasks.

CONCEPT OF OPERATIONS

Provisions must be made for the following:

- Establishment of a medical command post at the disaster site.
- Coordinating medical response team efforts.
- Triage of the injured.
- Medical care and transport for the injured.
- Holding and treatment areas for the injured.
- Isolating, decontaminating, and treating victims of hazardous materials or infectious diseases, as needed – post gross decontamination by fire department.
- Identifying hazardous materials or infectious diseases, controlling their spread, and reporting their presence to the appropriate state or federal health or environmental authorities.
- Issuing health & medical advisories to the public on such issues as drinking water precautions, waste disposal, the need for immunizations, and food protection techniques in coordination with local and regional public health.
- Conducting health inspections of congregate care and emergency feeding facilities (as necessary).

DISASTER BEHAVIORAL HEALTH SERVICES

Appropriate disaster behavioral health services need to be made available for disaster victims, survivors, bystanders, responders and their families, and other community caregivers during response and recovery operations. Services may include crisis counseling, critical incident stress management, information and referral to other services, and education about normal, predictable reactions to a disaster experience and how to cope with them.

mental health providers in the Region that have been involved in disaster training include psychologists, social workers, and clergy. Information on disaster behavioral health services procedures can be found in the local and regional public health and mental health plans. The Health Service Region 7 has a group of individuals that can be called on. See Resource 9 for a list of mental health resources in the Region.

MEDICAL SERVICES

Ambulance and Transportation

All ambulances and emergency rescue vehicles serving in our Region will be equipped with SMART Triage Tags and shall always contain, those essential items as specified by the DSHS EMS Licensure requirements. Upon notification of an emergency, the appropriate ambulance service will be dispatched to the scene.

The Senior EMS person first to arrive on the scene will:

- Survey the disaster scene.
- Report to the Incident Commander and establish a triage area.
- Institute a preliminary screening of casualties and begin stabilizing and transporting those most critically injured.
  Record the number of casualties transported and their destination.

If the emergency warrants, the EMS will request, through the Incident Commander, additional ambulances be sent to the scene.

Upon arrival of the Triage Officer, all ambulance service personnel will place themselves at his/her disposal and will follow their directions about casualty movement.

The senior EMS personnel will report to the Triage Officer and inform the Triage Officer as to what procedures have begun, the location of the triage area, the number of casualties, and the number transported.

The EMS Transportation Officer, during the disaster, will provide the ambulance personnel with information relative to the situation and/or existing capabilities at the various medical treatment facilities.

Triage

Adequate supplies for treatment of victims requiring advanced life support will be stored in a regional trailer and mobilized to the scene of a mass casualty disaster.

It is the responsibility of the first EMS person who arrives on the scene to institute triage, confer with the nearest emergency department physician, and to implement actions that may be required by the situation.

If it is apparent that there will be mass casualties, the nearest hospital with emergency facilities and others with suitable facilities will be notified.

The Triage Officer shall respond immediately to the scene of a local disaster. This person oversees sorting patients to establish priority of treatment and transportation. This person is also in charge of the care of patients awaiting transportation.

The EMS Transportation Officer oversees all ambulances and directs the loading and transportation of patients. This person acts as liaison with the field and the hospitals or DMCC (if established).

Equipment and medication for administering advanced life support to trauma victims will be transported to the scene by the assigned rescue unit. Additional supplies will be obtained from the DMCC upon request.

Triage Priorities – Patients with certain conditions or injuries have priority for transportation and treatment over others. An outline of these conditions is as follows:

Red Category – First Priority, most urgent

Airway and breathing difficulties
Uncontrolled or suspected severe bleeding
Shock
Open chest or abdominal wounds
Severe head injuries

Yellow Category – Second Priority, Urgent

Burns
Major or multiple fractures
Back injuries with or without spinal damages

Green Category – Third Priority, Non-urgent

Transportation and treatment are required for minor injuries (but not necessarily by EMS personnel), minor fractures, or other injuries of a minor nature.

Black Category – Impending death or deceased, Non-urgent

Disaster Medical Coordination Center will:

- Coordinate emergency health and medical activities with the municipal EOC and/or DDC when it is activated.
- Rapidly assess health and medical needs.
- Oversee and coordinate the efforts of local health and medical organizations activated for an emergency, assess their needs, help them obtain additional resources, and ensure that necessary services are provided.
- Establish and maintain field communications and coordination with other responding emergency teams (medical, fire, police, public works, etc.) and radio and/or telephone communications with hospitals, as appropriate
- Ensure that emergency medical teams responding to a disaster site establish a medical command post.
- Coordinate with neighboring Regions on matters related to assistance
- Provide, through the PIO, information to the news media on casualties and instructions to the public on dealing with public health problems.

Emergency Medical Services will:

- Respond to the scene with appropriate emergency medical personnel and equipment.
- Upon arrival at the scene, assume an appropriate role in the ICS. If ICS has not been established, initiate it and report to the DMCC if activated.
- Triage, stabilize, treat, and transport the injured.
- Coordinate through the DMCC with local and regional hospitals to ensure casualties are transported to the appropriate facilities.
- Direct the activities of private, volunteer, and other emergency medical units, and of bystander volunteers, as needed.
- Evacuate patients from affected hospitals and nursing homes, if needed.

Hospitals will:

- Implement internal and/or external disaster plans.

- Advise the Health and medical services staff in the DMCC of conditions at the facility and the number and type of available beds.
- Establish and maintain field and inter-facility medical communications.
- Provide medical guidance, as needed, to EMS.
- Coordinate with EMS, other facilities, and any medical response personnel at the scene through the DMCC (if activated) to ensure the following is accomplished:
- Casualties are transported to the appropriate medical facility.
- Patients are distributed to and among hospitals both inside and outside the area based on severity and types of injuries, time and mode of transport, capability to treat, and bed capacity.
- Coordinate with local emergency responders to isolate and decontaminate incoming patients, if needed, to avoid the spread of chemical or bacterial agents to other patients and staff. Limited regional resources for patient decontamination are available in the hospitals. It is unlikely that victims of an event would present in a hospital ED and require decontamination.

Surge Capacity

All regional facilities continue to prepare for an influx of patients. hospitals participate in local and regional emergency preparedness planning.

- Regional hospitals determined that all should be prepared to care for patients in a mass casualty event.
- All hospitals will share in the influx of patients.
- Coordination with facilities in nearby regions will be necessary when the number of patients exceeds regional hospital resources

The Central Texas Region has a population of approximately 498,460 according to the 2019 census estimate. Under the current planning standards set by the Department of State Health Services, a Region should be able to triage and treat an additional 500 patients (adult and pediatric) per 1,000,000 population. As a region, we can triage and treat at least the required additional 249 persons.

Coordinate with other hospitals, through the DMCC (if activated) and with EMS on the evacuation of affected hospitals, if necessary. Evacuation provisions should specify where the patients are to be taken. Depending on the situation, deploy medical personnel, supplies, and equipment to the disaster site(s) or retain them at the hospital for incoming patients. Establish and staff a reception and support center at each hospital for the relatives and friends of disaster victims who may converge there in search of their loved ones. Provide patient identification information to approved entities upon request.

The Central Texas RAC will maintain a current signed copy of the regional memorandums of understanding allowing for mutual aid among the Central Texas RAC membership. A copy may be obtained from RAC Staff.

RAC Mass Casualty Patient Tracking & Follow-up

	Facility	Patient First Name	Patient Last Name	Sex	DOB	Mode of Arrival	Triage Level (on scene)	Triage Level (at facility)	dx	status of patient	10/1/2018	10/2/2018
i.e.,	Reeves Hospital	Christine	Reeves	F		ABC EMS	yellow	green	fx rt ulna	stable	admitted to floor	

Directions: Each facility reports the list of patients and the status. The RAC will obtain follow up daily until patient is discharged or expires. The RAC will share patient information as provided by regional, state, and/or federal processes, protocols, and procedures.

Emergency Medical Services/Patient Transport
Mutual Aid Memorandum of Understanding

INTRODUCTION AND BACKGROUND

As in other parts of the nation, Trauma Service Area L (Bell, Coryell, Hamilton, Lampasas, Milam, and Mills counties) is susceptible to disasters, both natural and man-made, that could exceed the resources of any individual emergency medical service. A disaster could result from incidents generating an overwhelming number of patients, a smaller number of patients with specialized medical requirements (i.e. acts of terrorism or mass casualty incidents, etc.) or from incidents such as an internal disaster at a healthcare facility requiring partial or complete evacuation.

PURPOSE OF MUTUAL AID MEMORANDUM OF UNDERSTANDING

The mutual aid support concept is well established and considered "standard of care" in most emergency response disciplines. The purpose of this mutual aid support agreement is to aid TSA L pre-hospital care provider agencies with fostering communications, and sharing of resources, personnel, and equipment to effectively manage a disastrous event.

This Mutual Aid Memorandum of Understanding (MOU) is a voluntary agreement among TSA L emergency medical service agencies, other transporting services, the RAC, and public health for the purpose of providing mutual aid at the time of a disaster. For the purpose of this MOU, a disaster is defined as a catastrophic incident that exceeds the effective response capability of the healthcare community. An incident of this magnitude will almost always involve multiple emergency management, healthcare agencies, and local/regional public health. This MOU assumes that each affected agency's emergency operations plan has been fully implemented.

It is expressly understood that any Mutual Aid extended under this agreement is furnished in accordance with the Chapter 418 of the Texas Government Code and other provisions of law, and except as otherwise provided by law; the responsible local official in whose district an incident requiring mutual aid has occurred shall remain in charge at the incident, to include the direction of personnel and equipment provided through the operation of this agreement.

ACTIVATION OF THE MUTUAL AID MEMORANDUM OF UNDERSTANDING

This MOU may be activated by the Director of the affected agency, or his/her designee making the request for Mutual Aid after he/she has the determination:

A. An imminent threat of an emergency that is predicted to exceed local capabilities; and/or
B. The occurrence of a catastrophic event that has exceeded or is predicted to exceed response capabilities.

PROCEDURES FOR REQUESTS AND PROVISIONS OF MUTUAL AID

The Director or his/her designee may request mutual aid assistance by:

- Submitting a written request for assistance to an assisting agency.
- Orally communicating a request for mutual aid assistance from an assisting agency, this shall be followed by a written request within 24 hours.
- Notification of the RAC to start process on the requesting agency's behalf.

Mutual aid shall not be requested by an agency unless directly related to the disaster or emergency incident, and resources available from normally responding agencies to the affected area are deemed to be inadequate or are predicted to be expended prior to the resolution of the incident.

The local Director or his/her designee must make all requests for mutual aid assistance.

Requests Directly to the Assisting Agency:

The requesting agency may directly contact the Director of the assisting agency, or his or her designee and provide the necessary information as described later in this document.

Required Information by Requesting Agency:

1. A general description of the event, injuries sustained, or threatened;
2. Identification of the emergency service function or functions for which assistance is needed;
3. The amount and type of personnel, equipment, supplies needed, and a reasonable time estimate of the time each will be needed; and
4. The location(s) which the resources are to be dispatched; and
5. The name and contact information of a representative of the requesting agency to meet the personnel and equipment of any assisting agency to which resources are dispatched.

Assessment of Availability of Resources and Ability to Render Assistance:

1. When contacted by a requesting agency, the Director or his/her designee of the assisting agency agrees to assess local resources to determine the availability of personnel, equipment, supplies, and other assistance based on current or anticipated needs.
2. The assisting agency(s) shall render assistance to the extent that personnel, equipment, supplies, and/or other requested resources are deemed available.
3. No agency shall be required to provide mutual aid.

Information Required of the Assisting Agency:

A Director of his/her designee who determines that the assisting agency has available personnel, equipment, or other resources, shall notify the requesting agency and provide the following information, to the extent known:

a. A complete description of the personnel and their expertise and capabilities, equipment, and other resources to be furnished to the requesting agency;

b. The estimated length of time the personnel, equipment, and other resources will be available;
c. The name of the person or persons to be designated as supervisory personnel; and
d. The estimated time of arrival for the assistance to be provided at the designated location.

Supervision and Control

1. When aiding under the terms of this agreement, the personnel, equipment, and resources of any assisting agency will be under the operational control of the requesting agency, the response effort to which shall be organized and functioning within the National Incident Management System (NIMS).
2. Direct supervision and control of personnel, equipment, and resources and personnel accountability shall remain with the designated supervisory personnel of the assisting agency.
3. The designated supervisory personnel of the assisting agency shall:
   a. maintain daily personnel time records;
   b. documentation of materials and supplies expended;
   c. a log of equipment hours, if applicable;
   d. be responsible for the operations and maintenance of the equipment and other resources furnished by the Assisting Agency.
   e. Maintain communications with both the Assisting Agency and Requesting Agency.
4. The assisting agency's personnel, equipment, and other resources shall remain subject to recall by the assisting agency at any time, subject to reasonable notice to the requesting agency.

Mutual Aid Plan

1. By the signatures below, each agency certifies that it will provide mutual aid assistance in accordance with the Central Texas RAC Mutual Aid MOU.
2. Each agency will incorporate this Central Texas RAC Mutual Aid MOU into their operations plan, which shall specify those positions authorized to activate this agreement.

Food, Housing, and Self-sufficiency

1. Assisting agency personnel and equipment should be, to the extent possible, self-sufficient while working in the emergency incident or disaster area. The requesting agency maintains the option to specify only self-sufficient personnel and resources at the time of the request for assistance.
2. Unless specifically instructed otherwise, the requesting agency shall maintain the responsibility of providing food and housing for the personnel of the assisting agency from the time of arrival at their designated location to the time of their departure.

Communications

1. Unless specifically instructed otherwise, the requesting agency will maintain the responsibility for coordinating communications between personnel of the assisting agency and the requesting agency.
2. Assisting agency personnel should be prepared to maintain their own communications equipment to sufficiently maintain communications among their respective operating units.
3. Requesting agency may request Regional Mobile Communications resources as needed.

Rights and Privileges
Assisting agency personnel who are assigned to respond to or designated by their agency to perform duties pursuant to this Mutual Aid MOU shall continue to receive the following for performance of services as though the service had been rendered within the response district where the personnel are regularly employed.

a. the same wages, salary, pension, compensation, and benefits;
b. injury and death benefits;
c. disability payments; and
d. worker's compensation benefits

Terms of Deployment
The initial duration of the request for assistance will be specified by the requesting agency, to the extent possible, dependant upon the nature of the emergency incident or disaster.

Costs
1. All costs associated within the provisions of the Mutual Aid MOU shall be the responsibility of the assisting agency; including but not limited to:
   a. compensation for personnel (including benefits);
   b. operation and maintenance of equipment;
   c. medical expenses,
   d. food and lodging; and
   e. transportation expenses
2. The costs shall not exceed the currently published FEMA Typing Document.
3. The assisting agency shall be responsible for creating and maintaining a record of all costs incurred, both reimbursed and un-reimbursed, for a period of three years.
4. All agencies acknowledge that un-reimbursable costs incurred may not be reimbursable with any available state or federal funds.

INSURANCE

Workers' Compensation Coverage
Each agency shall be responsible for:

a. its own actions and those of its employees; and
b. for complying with the Texas Workers' Compensation Act

Automobile Liability Coverage
Each agency is responsible for its own actions and for complying with the Texas Motor Vehicle Laws.

General Liability
To the extent permitted by law, each agency shall be responsible for any and all claims, demands, suits, actions, damages, and causes for action related to, arising out of, or in any way connected with its own actions, and the actions of its personnel in providing mutual aid assistance, rendered or performed under the terms of this Mutual Aid MOU.

WAIVER OF CLAIMS AGAINST AGENCIES; IMMUNITY RETAINED

A. Each agency waives all claims against other Agencies for compensation for loss, damage, personal injury, or death occurring because of this Mutual Aid MOU, except those caused in whole or in part by the negligence of an officer, employee, or agent of another Agency.

B. No agency waives or relinquishes any immunity or defense on behalf of itself, its officers, employees, and/or agents as a result of its execution of this Mutual Aid MOU and the performance of the services and assistance contained herein.

ENTIRETY

This Mutual Aid MOU contains all commitments and agreements of the agencies with respect to the Mutual Aid to be rendered here under during or in connection with an emergency incident or disaster.

No other oral or written commitments of the agencies with respect to mutual aid under this MOU shall have any force or effect if not contained herein, except as provided below.

SEVERABILITY

If a provision contained in this Mutual Aid MOU is held invalid for any reason, the invalidity does not affect other provisions of this document that can be given effect without the invalid provision, and to this end the provisions of the MOU are severable.

TERM

A. The terms of this Mutual Aid MOU shall become effective upon the date of the agency's administrative signature.

~~**B.**~~ This Memorandum of Understanding shall renew automatically annually, upon completion of the initial term

AMENDMENT(S)

This Mutual Aid MOU may be amended only by the mutual written consent of the participating agencies.

TERMINATION

Any agency may, at any time, by 30-day written notice to Central Texas RAC, decline to participate in the provision of this Mutual Aid MOU. Central Texas RAC will then notify all participating agencies.

The termination of participation in this Mutual Aid MOU by one or more Agencies shall not affect the operations of this MOU between the other participating Agencies.

By signing this Mutual Aid Memorandum of Understanding the undersigned agency administrator is evidencing intent to use best reasonable efforts to abide by the terms of this document in the event of an emergency incident or disaster. The terms of this Mutual Aid Memorandum of Understanding are to be incorporated into the Agency's emergency management plan.

Any problems or issues that arise with respect of this agreement will be resolved at the lowest level possible, or with third party arbitration, if necessary.

Facility Mutual Aid Memorandum of Understanding

INTRODUCTION AND BACKGROUND

As in other parts of the nation, Trauma Service Area L (Bell, Coryell, Hamilton, Lampasas, Milam, and Mills counties) is susceptible to many types of emergencies and disasters that could exceed the resources of any individual facility. A disaster could result from incidents generating an overwhelming number of patients, from a smaller number of patients whose specialized medical requirements exceed the resources of the impacted facility (e.g., hazmat injuries, pulmonary, trauma surgery, etc.), or from incidents such as building or plant problems resulting in the need for partial or complete facility evacuation.

PURPOSE OF MUTUAL AID MEMORANDUM OF UNDERSTANDING

The mutual aid support concept is well established and is considered "standard of care" in most emergency response disciplines. The purpose of this mutual aid support agreement is to aid facilities in their emergency management by authorizing the Facility Mutual Aid System (F-MAS). F-MAS address the loan of medical personnel, pharmaceuticals, supplies, and equipment, or assistance with emergent facility evacuation, including accepting transferred patients.

This Mutual Aid Memorandum of Understanding (MOU) is a voluntary agreement among the facilities within Trauma Service Area L (TSA L) for the purpose of providing mutual aid at the time of a disaster. For purposes of this MOU, a disaster is defined as an overwhelming incident that exceeds the effective capability of a facility or facilities. An incident may involve emergency management agencies and local/regional public health district/departments. The disaster may be an "external" or "internal" event for facilities and assumes that each impacted facility's emergency management plan has been fully implemented.

This document addresses the relationships between and among the facilities of TSA L and is intended to augment, not replace, each facility's emergency operations plan. The MOU also provides the framework for facilities to coordinate as a single F-MAS community in actions with the Central Texas Trauma Regional Advisory Council (CTRAC), emergency operation centers, local/regional public health district/departments, fire departments, and emergency medical services during planning and response. This document does not replace but rather supplements the rules and procedures governing interaction with other organizations during a disaster (e.g., law enforcement agencies, the local emergency medical services, local/regional public health district/department, fire departments, American Red Cross, etc.).

By signing this Memorandum of Understanding each facility acknowledges its intent to abide by the terms of the MOU in the event of a disaster as described. The terms of this MOU are to be incorporated into the CTRAC Emergency Healthcare System Plan and the emergency management plan of each facility.

SPECIFIC PRINCIPLES OF UNDERSTANDING

Medical Operations/Loaning Personnel

Communication of request: The request for the transfer of personnel initially can be made verbally. The request, however, must be followed up with written documentation (which may be submitted electronically). This should ideally occur prior to the arrival of personnel at the impacted facility. The impacted facility should identify to the donor facility the following:

The type and number of requested personnel.

An estimate of how quickly the request is needed.

The location where they are to report.

An estimate of how long the personnel should be needed.

Documentation: The arriving donated personnel should be required to present their donor facility identification badge at the site designated by the impacted facility's command center. The impacted facility should be responsible for the following:

Meeting the arriving donated personnel (usually by the impacted facility's security department or designated employee).

Confirming the donated personnel's ID badge with the list of personnel provided by the donor facility.

Providing additional identification, e.g., "visiting personnel" badge, to the arriving donated personnel.

The impacted facility should accept the professional credentialing determination of the donor facility but only for those services for which the personnel are credentialed at the donor facility.

Supervision: The impacted facility's authorized administrator (or designee) or the command center identifies where and to whom the donated personnel are to report, and professional staff of the impacted facility supervise the donated personnel. The supervisor or designee should meet the donated personnel at the point of entry of the facility and brief the donated personnel of the situation and their assignments. If appropriate, the "emergency staffing" rules of the impacted facility should govern assigned shifts. The donated personnel's shift, however, should not be longer than the customary length practiced at the donor facility.

Legal and financial liability: Liability claims, malpractice claims, disability claims, attorneys' fees, and other incurred costs are the responsibility of the impacted facility, except that such claims

related solely to the acts or omissions of personnel provided by a donor facility, and occurring in the scope of employment of such personnel by the donor facility, are the responsibility of the donor facility. The impacted facility should reimburse the donor facility for the salaries of the donated personnel at the donated personnel's rate as established at the donor facility if the personnel are employees being paid by the donor facility. The reimbursement should be made within ninety (90) days following receipt of the invoice.

The authorized administrator (or designee) of the impacted facility should be responsible for providing a mechanism for granting emergency credentialing privileges for physicians, nurses and other licensed health care providers to provide services at the impacted facility.

Demobilization procedures: The impacted facility should provide and coordinate any necessary demobilization procedures and post-event stress debriefing. The impacted facility is responsible for providing the donated personnel transportation necessary for their return to the donor facility.

Transfer of Pharmaceuticals, Supplies or Equipment

Communication of Request: The request for the transfer of pharmaceuticals, supplies, or equipment initially can be made verbally. The request, however, must be followed up with a written communication. This should ideally occur prior to the receipt of any material resources at the impacted facility. The impacted facility should identify to the donor facility the following:

The quantity and exact type of requested items.

An estimate of how quickly the request is needed.

Time period for which the supplies should be needed.

Location to which the supplies should be delivered.

The donor facility should identify how long it should take them to fulfill the request. Since response time is a central component during a disaster response, decision and implementation should occur quickly.

Documentation: The impacted facility should honor the donor facility's standard order requisition form as documentation of the request and receipt of the materials. The Logistics Officer of the impacted facility should confirm the receipt of the material resources. The documentation should detail the following:

The items involved.

The condition of the equipment prior to the loan (if applicable).

The responsible parties for the borrowed material.

The donor facility is responsible for tracking the borrowed inventory through their standard requisition forms. Upon the return of the equipment, etc., the original invoice should be co-signed by the authorized administrator or designee of the impacted facility recording the condition of the borrowed equipment.

Transporting of pharmaceuticals, supplies, or equipment: The impacted facility is responsible for coordinating the transportation of materials both to and from the donor facility. This coordination may involve government and/or private organizations, and the donor facility may also offer transport. Upon request, the impacted facility must return and pay the transportation fees for returning or replacing all borrowed material.

Supervision: The impacted facility is responsible for appropriate use and maintenance of all borrowed pharmaceuticals, supplies, or equipment.

Financial and legal liability: The impacted facility, to the extent permitted by local, state, and federal law, is responsible for all costs arising from the use, damage, or loss of borrowed pharmaceuticals, supplies, or equipment, and for liability claims arising from the use of borrowed supplies and equipment. Costs includes all use, breakage, damage, replacement, and return costs of borrowed materials, for personnel injuries that result in disability, loss of salary, and reasonable expenses, and for reasonable costs of defending any liability claims. Reimbursement should be made within 90 days following receipt of the invoice.

Demobilization procedures: The impacted facility is responsible for the rehabilitation and prompt return of the borrowed equipment to the donor facility.

Transfer/Evacuation of Patients

Communication of request: The request for the transfer of patients initially can be made verbally. The request, however, must be followed up with a written communication prior to the actual transferring of any patients. The impacted facility should identify to the donor facility:

The number of patients needed to be transferred.

The general nature of their illness or condition.

Any type of specialized services required, e.g., ICU bed, burn bed, trauma care, etc.

Documentation: The impacted facility is responsible for providing the donor facility with the patient's complete medical records, insurance information and other patient information necessary for the care of the transferred patient. The impacted facility is responsible for tracking the destination of all patients transferred out. The donor and impacted facilities should utilize ETN and the regional mass casualty tool (Appendix A) to track patient transfers.

Transporting of patients: The impacted facility is responsible for coordinating and financing the transportation of patients to the donor facility. The point of entry should be designated by the donor facility's authorized administrator or designee. Once admitted, that patient becomes the donor facility's patient and under care of the donor facility's admitting physician until discharged, transferred or reassigned. The impacted facility is responsible for transferring of extraordinary drugs or other special patient needs (e.g., equipment, blood products) along with the patient if requested by the donor facility.

Supervision: The donor facility should designate the patient's admitting service, the admitting physician for each patient, and, if requested, should provide at least temporary courtesy privileges to the patient's original attending physician.

Financial and Legal Liability: Upon admission to the donor facility, the donor facility is responsible for liability claims originating after the time the patient is admitted to the donor facility. Reimbursement for care should be negotiated with each facility's insurer under the conditions for admissions without pre-certification requirements in the event of emergencies.

Notification: The impacted facility is responsible for notifying both the patient's family or guardian and the patient's attending or personal physician of the situation. The donor facility may assist in notifying the patient's family and personal physician.

The Mutual Aid Memorandum of Understanding is entered by, between, and among the participating facilities of TSA L, public health, and the Central Texas Regional Advisory Council. This document is fully executed by the signers hereto, each entity acting by and through its duly authorized official.

COVID NOT ADDRESSED

Purpose

This document guides how the Trauma Service Areas (TSAs) L, M, and N will perform their roles as an Emergency Support Function #8 (ESF-8) Supporting Entity. The TSAs will support the ESF-8 Lead during an incident. This support may be done through the Local Medical Operation Center (EOC/MOC), the regional Disaster Medical Operations Center (DMCC), and/or the Regional Health and Medical Operations Center (RHEOC/MOC) operations in response to a high consequence infectious disease (HCID) incident in the region(s).

For purposes of this document, an HCID is defined as:
"An infectious disease that presents an immediate threat; poses a high risk of death or serious long-term disability to a large number of people; and creates a substantial risk of public exposure, due to the disease's high level of contagion or the method by which the disease is transmitted."

An HCID will require public health and/or medical responses, and control efforts that exceed routine measures. It is important to note that HCID incidents that are or are suspected to be the result of an act of terrorism or criminal activities will require additional investigative activities that are not covered within the scope of this document but are addressed in the jurisdictional Emergency Operations Plan(s).

This is a living document and will be reviewed, updated, and approved on an annual basis or more frequently in response to a public health event/emergency, after-action improvements, updates in guidance, and/or Department of State Health Services policy or procedural changes.

Scope

The scope of this document is defined by and limited to the response function of Regional Healthcare Coalitions (HCC) during a confirmed, developing, or potential HCID incident that may require resources beyond those readily available within the affected jurisdiction(s) in the region. This document is intended to:

- Identify organizational responsibilities;
- Standardize regional response strategies;
- Provide coordination and response guidelines;
- Identify potential tasks that may be accomplished or coordinated by the RPHEOC/MOC versus the DMCC;
- Outline direction and control procedures and resource management information that is specific to a EOC/MOC, DMCC, and/or RPHEOC/MOC activation during an HCID incident. The response to an HCID incident is expected to involve a coordinated effort on the part of numerous public, private, and not-for-profit stakeholders. This document is intended to assist DMCCs in responding to an HCID incident in an organized and efficient manner so that such challenges can be effectively addressed while simultaneously facilitating the coordination and accomplishment of the Health Service Region 7's (HSR7's) core responsibilities, ultimately meeting the expectations of the State, Region, and Local stakeholders.

Overarching Assumptions

Several EMS Providers have been trained within the area to transport a suspected Ebola or HCID patient from any facility. Due to the fact that all of the facilitys are located within the 150-mile radius of a Treatment Center, the decision on transport will be determined at the time the patient is suspect. This decision will be made on a coordination call which will include the affected facility, Treatment Center, affected local & regional public health, affected emergency management, and transporting EMS provider. Possibly the Regional Advisory Council and/or the HPP Contractor may be requested to participate. Should an Assessment Hospital be designated prior to or on "game day", they will need ***EARLY*** notification to prepare location, equipment, supplies, and staff.

Concept of Operations

Self-presentation to a non-facility clinic or physician office

Local health clinics and physician offices are not considered a Frontline Facility because they are not capable of fully supporting an HCID patient. Local health clinics and physician offices should establish internal procedures for screening, isolating, and notifying local Public Health of any patient that meets the criteria as established for the current incident, and in accordance with current CDC guidelines.

Once a determination has been made that the presenting patient meets the screening criteria for suspicion of a HCID, the patient should be immediately isolated, proper PPE donned by the healthcare workers assigned to that patient, contact kept to a minimum, and public health notified. Recommendations for appropriate PPE are found at the end of this document in *Appendix A: PPE Recommendations*.

If the patient's acuity allows for self-transport, then the patient should be advised of the closest Assessment Hospital. With coordination from Public Health, the patient will be given instructions on exiting the facility and receiving protocols at the Assessment Hospital. This will include:

- Exiting protocols and escort
- Where to park
- Who to contact when they arrive

- Where to meet the receiving healthcare workers
- Ensure that proper PPE is donned

If the patient is unable to transport themselves to an Assessment Hospital, normal transferring processes and procedures should take place. Some, but not all causes include:

- Acutely ill
- Emotionally distraught
- Other medical conditions (i.e. heart, kidney, brain, car accident)
- No transportation

When the patient cannot self-transport, Public Health will contact the designated Emergency Medical Services (EMS) agency to coordinate the transport of the patient from their current location. Following regional EMS guidance, and in accordance with CDC recommendations, dispatched ambulance arrives on scene, crew dons PPE appropriate for universal precautions and surveys scene / patient status. The same guidelines will be utilized as were indicated below. Use of the *Emerging Infectious Disease Surveillance Tool (SRI/MERS/Ebola)* published by the International Academies of Emergency Dispatch is recommended.

The transferring facility will prepare to transfer patient. This may include isolating and preparing the loading area for decontamination, and otherwise isolating the internal and external pathway by which the patient may be taken. The transferring facility along with Public Health should determine the estimated time of arrival (ETA) at the receiving Assessment Hospital. This information will be relayed to the designated Assessment Hospital by the EOC/MOC/DMCC if stood up. They will then update the dispatch center.

The Assessment Hospital will prepare to receive the patient at their designated acceptance point. This may include isolating the loading dock, preparing the loading dock for decontamination, and otherwise isolating the internal and external pathway by which the patient may be taken. Upon arrival, facility staff will clear hallways and transport the patient into the facility.

SELF-PRESENTATION TO A FRONTLINE FACILITY - ACUTE CARE FACILITY, FACILITY OR FREESTANDING EMERGENCY ROOM (ER)

Local healthcare facilities should establish internal procedures for screening, isolating, and notifying Public Health for any patient that meets the criteria as established by Public Health for the specific incident, and in accordance with current CDC guidelines. Once a determination has been made that the presenting patient meets the screening criteria for suspicion of a HCID, the patient should be immediately isolated, proper PPE donned by patient and the healthcare workers assigned to that patient, contact kept to a minimum, and Local and Regional Public Health notified, as appropriate.

All acute care facilities should be prepared to support a patient for up to 48 hours, during which time testing and transfer protocols will determine the need for, and destination to which a transfer may be made, if at all.

If the patient's acuity allows for self-transport, then the patient should be advised as above.

The transferring facility is responsible for compliance with all Emergency Medical Treatment & Labor Act (EMTALA) considerations regarding the provision of care while the patient is at that facility, and requirements for a transfer to a higher level of care. Facilitys everyday perform facility-to-facility transfers to transport patients to a higher level of care. Facility and EMS protocols for such a transport should begin with the execution of exiting procedures and EMS crews donning appropriate PPE. The transferring facility and Public Health should determine the estimated time of arrival (ETA) at the receiving Assessment Hospital.

The designated EMS agency will be activated only when requested by the Local/Regional Public Health authority or their designee, and neither is responsible for verifying the validity of the request. Planning assumptions acknowledge that the designated EMS could be activated unnecessarily, but this is preferable to inaction that could lead to a delayed response and further loss of life.

When activated, designated EMS agency will adhere to the following guidelines:

- Will follow the current CDC recommendations regarding PPE to include:
  - Suits
  - Masks/Respirators
  - Gloves
  - Boots
- Other special supplies will be utilized including:
  - Over pack containers
  - Spray bottles with bleach/water solution
  - Large Bio bags
  - Disinfectant wipes
  - Plastic sheeting
  - Duct tape
- Specially trained personnel will be used to perform the patient transport.
- Specific ambulances will be designated as the primary and secondary transport vehicles.
- Upon completion of patient transport and transfer to receiving facility, the transport vehicle crews will place all supplies and equipment used during transport including plastic sheeting, medical bags and equipment, into an over pack container and close the container.
- Crew members will then decontaminate each other, the patient compartment of the vehicle, the stretcher, and any other items deemed necessary, with the recommended cleaning/disinfecting solution.
- Crew members will decontaminate each other a second time with the recommended cleaning/disinfecting solution and once dry, wipe each other down with the disinfectant wipes.
- Crew members will then doff their protective suits using recommended techniques and place the suits, boots, gloves, and masks into a second over pack container.
- A second crew in PPE, will wipe down the patient compartment of the transport vehicle again using the disinfectant wipes or towels soaked in the recommended cleaning/disinfecting solution.

- The second crew will then doff their PPE using recommended technique and place the items in the second over pack container and close the container.
- The over pack containers will be left at the receiving facility for proper disposal.

The Dispatch Center will determine the ETA of designated EMS agency at the transferring facility location, and advise Public Health, the Assessment Hospital, the transferring facility, and the EOC/MOC/DMCC/RPHMOC of such time. The activated EOC/MOC(s) will communicate the ETA to other agencies that will be involved with the transfer, including law enforcement and local emergency management.

When the designated EMS agency is used, the transferring facility will prepare the transfer at their loading point. This may include isolating the loading dock, preparing the loading dock for decontamination, and otherwise isolating the internal and external pathway by which the patient may be taken. Upon arrival of the designated EMS agency at the transferring facility, the facility staff will clear hallways and transport the patient to the ambulance, at which time a hand-off will occur.

The designated EMS agency will notify the Assessment Hospital once the patient has been transferred into the ambulance and provide an ETA to the Assessment Hospital, as applicable.

The Assessment Hospital will prepare to receive the designated EMS agency at their designated acceptance point. This may include isolating the loading dock, preparing the loading dock for decontamination, and otherwise isolating the internal and external pathway by which the patient may be taken. Upon arrival, facility staff will clear hallways and transport the patient into the facility.

<u>Public 9-1-1 Call for Assistance</u>
Local 9-1-1 receives call and Dispatch performs screening criteria on caller. Information is relayed to the appropriate dispatch agency, and an ambulance crew is dispatched. Following regional EMS guidance, and in accordance with CDC recommendations, dispatched ambulance arrives on scene, crew dons PPE appropriate for universal precautions and surveys scene / patient status. Use of the *Emerging Infectious Disease Surveillance Tool (SRI/MERS/Ebola)* published by the International Academies of Emergency Dispatch is recommended.

- If patient presents with HCID-identified symptoms.
- Gather information and ask the risk factor questions dictated and provide by Public Health.

If **YES** to any of the questions, the Dispatch Center will notify responding EMS agency of a positive possible HCID patient incident and request for a HCID response, which may include a designated EMS agency, Law Enforcement, and Public Health.

If **NO**, normal protocols and processes will be followed.

Possible HCID Patient:

- Based on the presence of symptoms and risk factors, put on or continue to wear PPE to include at minimum:
  - Mask, Gown, Double Glove, and Goggles
- Maintain Scene Safety
- Reduce the number of first responders in proximity to the patient.
  - Bystanders, patients, family, or those in contact with the patient should not enter or exit the scene unless cleared by incident command.
- Evaluate bystanders and or family that are on the scene.
- Isolate those that have signs or symptoms from bystanders or family if possible.
- Advise the patient that precautionary procedures are being implemented.
- The focus should be preventing contamination and exposures.
- When Doffing PPE, dispose of equipment in a red bio hazard bag or container.

Treatment

- If the patient is stable
- Limit contact with discretion on basic treatment.
- Consider eliminating any invasive medical procedures that are not critical to patient's well-being, when possible without impacting patient care.
- The designated EMS agency will respond with transport vehicle and necessary equipment to handle transport of the patient.
- The patient should not be moved until.
  - Patient care has been transferred to a higher level of care.
  - The transport unit is on the scene.
  - Personnel have donned the appropriate PPE.
  - Facility has verified that they are prepared to receive the patient.
- When moving the patient
  - Be cognizant of cross contamination of equipment and scene.
- Transport the patient to the identified facility
  - This will be verified with Public Health.
  - Patient cannot be transported to free standing ERs or Frontline Facilities.
- Incident commander or designee will provide patient report to the facility.
- Transfer patient to receiving facility.
- Decon personnel, equipment and transport vehicle prior to leaving scene or facility.

<u>Public Health Request</u>

Public Health officials may notify local designated EMS agency of the need for transport in the case of individuals that are unable to transport themselves to the facility, including those:

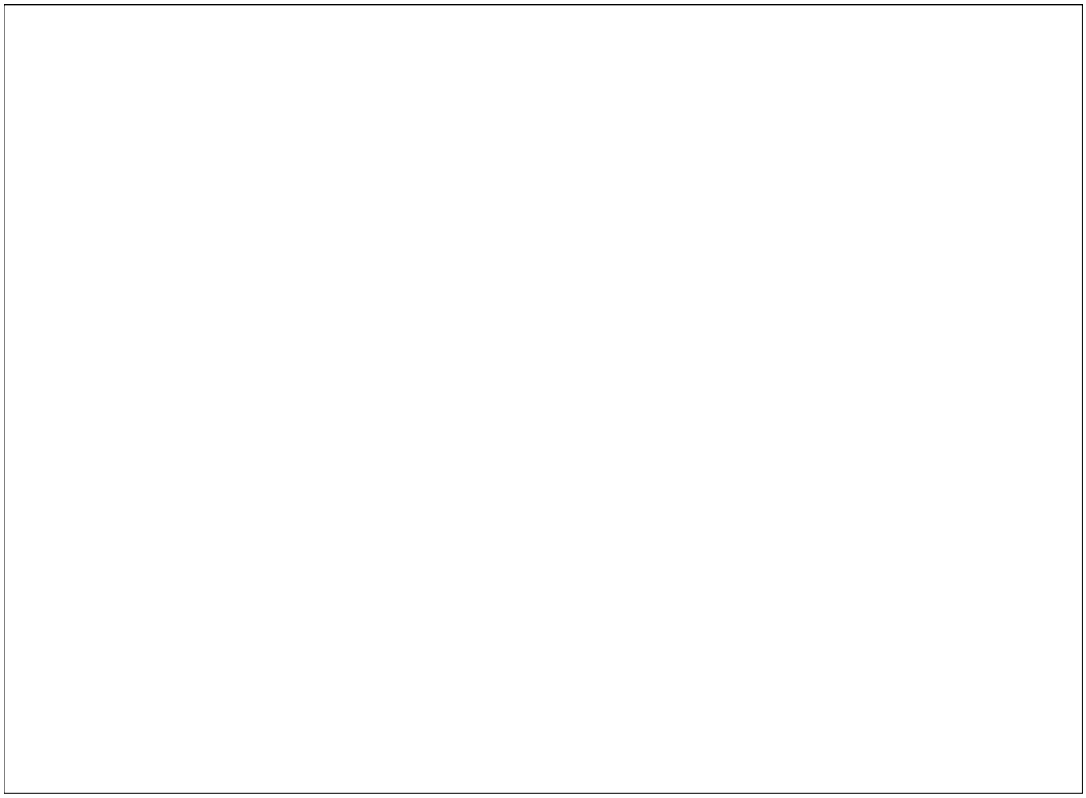
- Persons Under Monitoring
- Other individuals determined to be symptomatic

Medical Control will confer with local Public Health on the degree of suspicion for HCID. Following regional EMS guidance, and in accordance with CDC recommendations, the dispatched ambulance arrives on scene, crew dons PPE appropriate for suspected disease(s) and surveys scene and patient status.

The Dispatch Center will activate the designated EMS agency only when requested by the local public health authority or their designee, and is not responsible for verifying the validity of the request. Planning assumptions acknowledge that the designated EMS agency could be activated unnecessarily, but this is preferable to inaction that could lead to a delayed response and further contamination and/or loss of life. Upon arrival to the scene, the designated EMS agency will complete assessment, patient history, precautions, and physiological status of the patient, and other pertinent facts. The designated EMS agency will adhere to the guidelines stated in the previous situations in this Concept of Operations section, pertaining to patient contact.

The designated EMS agency will notify the Assessment Hospital once patient has been transferred to the ambulance and provide an ETA to the Assessment Hospital, as applicable. The Assessment Hospital will prepare for the patient which may include isolating and preparing the acceptance point for decontamination, and otherwise isolating the internal and external pathway by which the patient may be taken. Upon arrival, facility staff will clear hallways and transport the patient into the facility. EOC/MOC/DMCC/RPHMOC will be kept informed by the Assessment Hospital.

- **Bell County Public Health District**
- **Brazos County Public Health District**
- **Hays County Local Health Department**
- **Milam County Public Health Department**
- **Waco-McLennan County Public Health District**
- **Williamson County & Cities Health District**
- **Austin Public Health**
- **DSHS, Health Service Region 7**



Possible High Consequence Infectious Disease Screening
(Approved 4.12.2019)

ASK PATIENT THE FOLLOWING 2 QUESTIONS IMMEDIATELY:

1.	Have you recently felt feverish and/or had a cough, congestion, runny nose, headache, or body aches **AND** **ALSO** traveled outside your normal area within the last 21 days?	**Yes** or **No**
2.	Have you recently felt feverish and/or had a cough, congestion, runny nose, headache, or body aches **AND** **ALSO** have a new rash over most of your body?	**Yes** or **No**

IF the answer is **YES** to **either question** above, perform the following steps ***immediately***:

1. Ask the patient to put on a face mask. If EMS, notify hospital during patient report so the crew will be directly appropriately at the hospital.
2. If hospital, inform the patient, "You may have a contagious illness, so you are going to be placed in a private room. Your provider will see you shortly."
3. Escort the patient to a private room with a closed door.
4. Carry out the Communicable Disease Screen built into the EHR or notify the provider or charge nurse immediately to carry out the Communicable Disease Screen.

REMINDER: Any patient with cough and respiratory symptoms should be asked to wear a mask upon arrival.

REMINDER: Contact local public health if high suspicion of a high consequence infectious disease.

General High Consequence Infectious Disease

EMS Special Considerations

I. Infection Control / PPE

A. Every effort should be made to contain potentially infectious body fluids by use of emesis bags, biohazard bags, and yellow sheets or other barriers to collect large volumes of diarrhea or other potentially infectious materials.

B. If performing intubation, nebulizer treatment, CPR, open suctioning, or any other procedure that may result in the production of aerosolized body fluids, respiratory protection that is at least as protective as a NIOSH-certified, fit tested, N95 filtering face piece respirator shall be used.

C. PPE shall be worn upon entry, or put on as soon as the risk is identified, and continue to be worn until the member is no longer in contact with the patient or potentially infectious materials.

D. PPE shall be carefully removed without contaminating one's eyes, mucous membranes, or clothing.
E. PPE shall be placed into a medical waste container at the facility or double bagged and held in a secure location until it can be properly disposed of.
F. Hand hygiene shall be performed immediately after the removal of PPE.
G. Members should decontaminate to include showering if possible at the facility.

II. Patient Care Equipment
A. Dedicated medical equipment (preferably disposable) should be used for the provision of patient care.
B. All reusable equipment should be cleaned and disinfected according to the manufacturer's instructions.

III. Patient Care Considerations
A. Limit procedures, especially those that will increase the risk of exposure to infectious material, to only those which are absolutely necessary prior to arrival at the facility.
B. Avoid use of needles and other sharps in a moving vehicle; limit use of sharps
C. Needles and sharps should be handled with extreme care and disposed of immediately in puncture-proof, sealed containers.
D. Hand hygiene should be performed frequently, including before and after all patient contact, contact with potentially infectious material, and before putting on and upon removal of PPE, including gloves.
E. Pre-facility resuscitation procedures such as endotracheal intubation, open suctioning of airways, and cardiopulmonary resuscitation frequently result in a large amount of body fluids, such as saliva and vomit. Performing these procedures in a less controlled environment (i.e., moving vehicle) increases risk of exposure of EMS personnel. If conducted, perform these procedures under safer circumstances (i.e., stopped vehicle, facility destination.)

IV. Patient Transport into Facility
A. Contact Medical Control/Dispatch as soon as the patient has been identified as a potential HCID risk. Medical Control/Dispatch shall immediately notify the receiving facility in order to prepare for patient arrival. Any facility that is following CDC's infection control recommendations and can isolate a patient in a private room is capable of safely managing a patient.
B. Local/regional Public Health should be notified as soon as possible.
C. Upon arrival at the receiving facility, transporting crew members shall remain inside the vehicle with the patient, until directed to unload by facility receiving staff.
D. The transfer of patient care will occur at the back doors of the ambulance. This will allow the facility to control the movement of suspect HCID patients into facility.
E. Suspected HCID patients should not be moved through, or temporarily left in, waiting rooms.
F. If the patient, stretcher, members' PPE, or other items or equipment is contaminated with potentially infectious material, members shall take care to minimize the transfer of potentially infectious material to facility surfaces.

V. Environmental Cleaning

A. Diligent environmental cleaning and disinfection and safe handling of potentially contaminated materials is extremely important, as blood, sweat, emesis, feces and other body secretions represent potentially infectious materials.

B. Persons performing environmental cleaning and disinfection shall wear recommended PPE to protect against exposure through contact and / or splashes during clean-up.

C. Patient-care surfaces (stretchers, railings, medical equipment control panels, and adjacent flooring, walls, and work surfaces) are likely to become contaminated and shall be cleaned and disinfected immediately after transport. Facility-grade agency supplied disinfectants, when used according to the label, are sufficient to kill HCID.

D. A blood spill or spill of other body fluid or substance should be managed according to agency's Infection Control Guidelines.

E. Contaminated reusable patient care equipment shall be placed in biohazard bags and labeled for cleaning and disinfection according to agency policies. Reusable equipment should be cleaned and disinfected according to manufacturer's instruction by trained personnel wearing correct PPE.

F. To reduce exposure among staff to potentially contaminated textiles (cloth products) while laundering, discard any contaminated fabrics (including uniforms), linens, and non-waterproof pillows or mattresses as regulated medical waste. If proper PPE is utilized, members' uniforms should not be contaminated with potentially infectious material.

G. Ensure that infectious waste is safely contained in clearly marked biohazard bags / containers and disposed of in compliance with agency's guidelines.

VI. Follow-Up and Reporting Measures After Caring for Suspected or Confirmed HCID Patient

A. EMS Personnel with exposure to blood, bodily fluids, secretions, or excretions from a patient with suspected or confirmed HCID shall immediately:

   i. Stop working and wash the affected area with a large amount of alcohol or eyewash solution;

   ii. Contact the Supervisor for assessment and access to post-exposure management services; and

   iii. Receive medical evaluation and follow-up care based upon recommendations from local, state, and federal public health authorities.

B. EMS personnel who develop sudden onset of symptoms after an unprotected exposure (i.e., not wearing recommended PPE at the time of patient contact or through direct contact to blood or body fluids) to a patient with suspected or confirmed HCID, should:

   i. Notify their supervisor, who should notify local/regional Public Health;

   ii. Not report to work or immediately stop working and isolate themselves;

   iii. Contact physician through Workers' Compensation for assessment and access to post-exposure management services; and

   iv. Comply with work exclusions until they are deemed no longer infectious to others.

VII. Waste Management

Waste generated during the process of transporting a suspected HCID patient may not be considered general medical waste. Waste should be isolated and retained in an appropriate manner pending Public Health determination that the patient does, or does not have a HCID. At this time, appropriate measures should be taken for disposal.

Healthcare Special Considerations

I. Facility Minimum Expectations for Interim Care

A. Routinely manage all patients using universal precautions.
B. All acute care facilities must be prepared to evaluate patients with suspected HCID, draw blood specimens, and package and transport specimens for testing as appropriate.
C. Include assessment of patients for the possibility of HCID in triage and evaluation processes.

II. Patient Management

A. Healthcare workers should implement standard, contact, and droplet precautions if a patient is exhibiting early symptoms (i.e., fever, fatigue, headache, muscle pain).
B. Immediately isolate patients with a relevant travel and exposure history.
C. Implement administrative and environmental controls with the facility's infection prevention management system.
   i. Identify critical patient care functions and essential healthcare workers for care of HCID patients, for collection of laboratory specimens, and for management of the environment and waste ahead of time.
   ii. Ensure healthcare workers have been trained in all recommended protocols for safe care of HCID patients before they enter the patient care area.
   iii. Train healthcare workers on all PPE recommended in the facility's protocols. Healthcare workers should practice donning and doffing procedures and must demonstrate during competencies.
   iv. Monitor the patient care area at all times, and at a minimum, log entry and exit of all healthcare workers who enter the room of a HCID patient.
   v. Ensure that practical precautions are taken during patient care, such as keeping hands away from the face, limiting touch of surfaces and body fluids, preventing needle stick and sharps injuries, and performing frequent disinfection of gloved hands using an alcohol-based hand rub, particularly after handling body fluids.
   vi. Disinfect immediately any visibly contaminated PPE surfaces, equipment, or patient care area surfaces using an EPA-registered disinfectant wipe.
   vii. Perform regular cleaning and disinfection of patient care surfaces, even absent visible contamination.
D. Patient care decisions should be based on the patient's medical status, history, and evaluation for alternative diagnoses.
E. Avoid unnecessary direct contact.
F. Perform only urgent or emergent procedures.
G. Immediately contact appropriate local health department or health service region.

III. Laboratory Testing – In-House Clinical-based

A. Clinical laboratories in acute care facilities must also do routine laboratory testing for a person under monitoring, such as traditional chemistry, hematology, or other laboratory testing used to support and treat patients.
B. For transporting specimens within the facility, place them in a durable, leak-proof secondary container. Hand walk specimens to the laboratory. Do not use any pneumatic tube system for transporting suspected HCID specimens.
C. During specimen testing, a certified class II Biosafety cabinet or Plexiglas splash guard should also be used, as well as all manufacturer-installed safety features on all laboratory equipment.
D. In the case of a spill in the laboratory, the basic principles for blood or body substance spill management are outlined in the United States OSHA Blood Borne Pathogens Standards. Clean and disinfect surfaces with a U.S. Environmental Protection Agency (EPA)-registered facility disinfectant with a label claim for a non-enveloped virus (i.e., norovirus, rotavirus, adenovirus, and poliovirus).

V. Test Results and Disposition

A. If testing is not indicated or the result is **negative**, alert the appropriate local health department or health service region prior to discharge for appropriate discharge instructions and possible monitoring.
B. If result of testing is **positive,** continue with isolation and appropriate care, and determine health care worker precautions as directed by public health.

VI. Environmental Cleaning

A. Be sure staff (this should be performed only by nurses or physicians as part of patient care activities in order to limit the number of additional healthcare workers who enter the room) wear recommended personal protective equipment (PPE) to protect against direct skin and mucous membrane exposure of cleaning chemicals, contamination, and splashes or spatters during environmental cleaning and disinfection activities.
B. Use of reusable PPE during a highly infectious disease incidents are not recommended. However, if reusable PPE is used, the PPE should be disinfected and kept in the room or anteroom.
C. Environmental cleaning staff require training in proper use of PPE and disinfection processes. Cleaning staff should be supervised and continually monitored in the use of PPE, disinfection, and waste disposal processes to ensure staff and environmental safety is assured. Use a U.S. Environmental Protection Agency (EPA)-registered facility disinfectant with a label claim for a non-enveloped virus (e.g., norovirus, rotavirus, adenovirus, poliovirus) to disinfect environmental surfaces in rooms of patients with suspected or confirmed HCID virus infection. EPA-registered facility disinfectants with label claims against non-enveloped viruses (e.g., norovirus, rotavirus, adenovirus, poliovirus) are broadly antiviral and capable of inactivating both enveloped and non-enveloped viruses.

D. Avoid contamination of reusable porous surfaces that cannot be made single use. Use only a mattress and pillow with plastic or other covering through which fluids cannot be absorbed.
E. Routine cleaning of the PPE doffing area should be performed at least once per day and after the doffing of grossly contaminated PPE. Cleaning should be performed by a healthcare worker wearing clean PPE. An EPA registered facility disinfectant with label claims against non-enveloped viruses (e.g., norovirus, rotavirus, adenovirus, poliovirus) must be used for disinfection. When cleaning and disinfection are complete, the healthcare worker should carefully doff PPE and perform hand hygiene.
F. To reduce exposure among staff to potentially contaminated textiles (cloth products) while laundering, discard all linens, non-fluid-impermeable pillows or mattresses, and textile privacy curtains into the waste stream and disposed of appropriately.

Appendix E: Ebola Virus Disease

PPE Recommendations

- Guidance on PPE To Be Used By Healthcare Workers during Management of Patients with Confirmed Ebola or Persons under Investigation (PUIs) for Ebola who are Clinically Unstable or Have Bleeding, Vomiting, or Diarrhea in U.S. Facilities, Including Procedures for Donning and Doffing PPE: https://www.cdc.gov/vhf/ebola/healthcare-us/ppe/guidance.html
- Guidance on PPE To Be Used by EMS 911 Providers: https://www.cdc.gov/vhf/ebola/healthcare-us/emergency-services/index.html
- Recommendations on Selection and Use of Personal Protective Equipment for First Responders against Ebola Exposure Hazards: https://www.cdc.gov/vhf/ebola/healthcare-us/emergency-services/ems-systems.html

EMS Special Considerations – Ebola Virus Disease

I. Infection Control / PPE
A. Every effort should be made to contain potentially infectious body fluids by use of emesis bags, biohazard bags, and yellow sheets or other barriers to collect large volumes of diarrhea or other potentially infectious materials.
B. If performing intubation, nebulizer treatment, CPR, open suctioning, or any other procedure that may result in the production of aerosolized body fluids, respiratory protection that is at least as protective as a NIOSH-certified, fit tested, N95 filtering face piece respirator shall be used.
C. PPE shall be worn upon entry, or put on as soon as the risk is identified, and continue to be worn until the member is no longer in contact with the patient or potentially infectious materials.
D. PPE shall be carefully removed without contaminating one's eyes, mucous membranes, or clothing.

E. PPE shall be placed into a medical waste container at the facility or double bagged and held in a secure location until it can be properly disposed of.
F. Hand hygiene shall be performed immediately after the removal of PPE.
G. Members should decontaminate to include showering if possible at the facility.

II. Patient Care Equipment

A. Dedicated medical equipment (preferably disposable) should be used for the provision of patient care.
B. All reusable equipment should be cleaned and disinfected according to the manufacturer's instructions. The CDC advises that when used according to the manufacturer's instructions, Environmental Protection Agency (EPA)-registered disinfectants are sufficient to inactivate enveloped viruses such as Ebola virus.

III. Patient Care Considerations

A. Limit procedures, especially those that will increase the risk of exposure to infectious material, to only those which are absolutely necessary prior to arrival at the facility.
B. Avoid use of needles and other sharps in a moving vehicle; limit use of sharps
C. Needles and sharps should be handled with extreme care and disposed of immediately in puncture-proof, sealed containers.
D. Hand hygiene should be performed frequently, including before and after all patient contact, contact with potentially infectious material, and before putting on and upon removal of PPE, including gloves.
E. Pre-facility resuscitation procedures such as endotracheal intubation, open suctioning of airways, and cardiopulmonary resuscitation frequently result in a large amount of body fluids, such as saliva and vomit. Performing these procedures in a less controlled environment (i.e., moving vehicle) increases risk of exposure of EMS personnel. If conducted, perform these procedures under safer circumstances (i.e., stopped vehicle, facility destination.)

IV. Patient Transport into Facility

A. Contact Medical Control/Dispatch as soon as the patient has been identified as a potential Ebola risk. Medical Control/Dispatch shall immediately notify the receiving facility in order to prepare for patient arrival. Any facility that is following CDC's infection control recommendations and can isolate a patient in a private room is capable of safely managing a patient with Ebola.
B. Medical Control/Dispatch shall contact the local health department/health authority.
C. Upon arrival at the receiving facility, transporting crew members shall remain inside the vehicle with the patient, until directed to unload by facility receiving staff.
D. The transfer of patient care will occur at the back doors of the ambulance. This will allow the facility to control the movement of suspect EVD patients into facilities or healthcare facilities. Potential Ebola patients should be restricted to entrances away from public waiting areas.
E. Suspected EVD patients should not be moved through, or temporarily left in, waiting rooms.

F. If the patient, stretcher, members' PPE, or other items or equipment is contaminated with potentially infectious material, members shall take care to minimize the transfer of potentially infectious material to facility surfaces.

V. Environmental Cleaning

A. Diligent environmental cleaning and disinfection and safe handling of potentially contaminated materials is extremely important, as blood, sweat, emesis, feces and other body secretions represent potentially infectious materials.

B. Persons performing environmental cleaning and disinfection shall wear recommended PPE to protect against exposure through contact and / or splashes during clean-up:

i. Gloves
ii. Gown (fluid-resistant or impermeable)
iii. Goggles
iv. Facemask
v. Additional PPE may be required in certain situations, including the presence of copious amounts of blood, other body fluids, vomit, or feces on the patient or in the environment. In these cases, member shall use the following additional PPE as needed to ensure no skin is exposed:
   a) Double gloving
   b) Disposable shoe covers
   c) Leg coverings
   d) Preferred PPE gowns, suits, hoods, and other coverings are certified by ASTM-1671F, *Standard Test Method for Resistance of Materials Used inProtective Clothing to Penetration by Blood-Borne Pathogens Using Phi-X174 Bacteriophage Penetration as a Test System.* Chemical protective suits may be used when preferred protective clothing is not available. However, chemical protective suits may not be conducive for use within patient treatment scenarios.

C. Patient-care surfaces (stretchers, railings, medical equipment control panels, and adjacent flooring, walls, and work surfaces) are likely to become contaminated and shall be cleaned and disinfected immediately after transport. Facility-grade agency supplied disinfectants, when used according to the label, are sufficient to kill Ebola.

D. A blood spill or spill of other body fluid or substance should be managed according to agency's Infection Control Guidelines.

E. Contaminated reusable patient care equipment shall be placed in biohazard bags and labeled for cleaning and disinfection according to agency policies. Reusable equipment should be cleaned and disinfected according to manufacturer's instruction by trained personnel wearing correct PPE.

F. To reduce exposure among staff to potentially contaminated textiles (cloth products) while laundering, discard any contaminated fabrics (including uniforms), linens, and non-waterproof pillows or mattresses as regulated medical waste. If proper PPE is utilized, members' uniforms should not be contaminated with potentially infectious material.

G. Ensure that infectious waste is safely contained in clearly marked biohazard bags / containers and disposed of in compliance with agency's guidelines.

VI. Follow-Up and Reporting Measures After Caring for Suspected or Confirmed Ebola Patient

A. EMS Personnel with exposure to blood, bodily fluids, secretions, or excretions from a patient with suspected or confirmed Ebola shall immediately:
   i. Stop working and wash the affected area with a large amount of alcohol or eyewash solution;
   ii. Contact the Supervisor for assessment and access to post-exposure management services; and
   iii. Receive medical evaluation and follow-up care, including fever monitoring twice daily for 21 days, after the last known exposure. The member may continue to work while receiving twice daily fever checks, based upon recommendations from local, state, and federal public health authorities.

B. EMS personnel who develop sudden onset of fever, intense weakness or muscle pains, vomiting, diarrhea, or any signs of hemorrhage after an unprotected exposure (i.e., not wearing recommended PPE at the time of patient contact or through direct contact to blood or body fluids) to a patient with suspected or confirmed Ebola, should:
   i. Not report to work or immediately stop working and isolate themselves;
   ii. Notify their supervisor, who should notify local/regional public health;
   iii. Contact physician through Workers' Compensation for assessment and access to post-exposure management services; and
   iv. Comply with work exclusions until they are deemed no longer infectious to others.

VII. Waste Management

Waste generated during the process of transporting a suspected Ebola patient is not considered Category A waste until patient test results determine presence of the disease. Waste should be isolated and retained in an appropriate manner pending healthcare provider/public health determination that the patient does, or does not have Ebola. See Waste Management guidance in Appendix C: Healthcare Special Considerations.

Healthcare Special Considerations – Ebola Virus Disease

I. Facility Minimum Expectations for Interim Care

A. Routinely manage all patients using universal precautions

B. All acute care facilities must be prepared to evaluate patients suspected of having EVD, draw blood specimens, and package and transport specimens for EVD testing as outlined in DSHS Ebola Guidelines.

C. Include assessment of patients for the possibility of EVD in triage and evaluation processes.
   i. Early symptoms of EVD are similar to other febrile illnesses. Risk posed by patients with early, limited symptoms (i.e., fever, fatigue, headache, muscle pain) is

lower than that from patients with severe EVD symptoms (i.e., bleeding, vomiting, and diarrhea)

ii. Take a relevant travel and exposure history of all patients. If the patient is unable to provide history due to clinical condition or other communication barriers, history should be elicited from the next most reliable source (i.e., family, friend, or EMS provider).

D. This screening should include Travel / Contact History:
   i. Residence in or travel to the continent of Africa, or a country with widespread Ebola transmission (specifically Guinea, Liberia, or Sierra Leone) within the previous 21 days. (Note: designated countries of interest are routinely evaluated and changed. Locate latest list on CDC website.)
   ii. Contact with an individual with confirmed EVD within the previous 21 days.
   iii. Direct handling of bats or nonhuman primates from a country with widespread Ebola transmission.
   iv. Health care worker in a patient care area or processing laboratory samples for patients with Ebola in the U.S. or elsewhere.
   v. On any public health monitoring list for EVD, including a self-monitoring list.

E. Further question patients who have a relevant travel and exposure history regarding the presence of signs or symptoms compatible with EVD. These include:
   i. Fever (including a history of fever in the last 24 hours, subjective feeling of fever, and the use of antipyretic drugs) ≥100.4°F or 38.0°C.
   ii. Headache, weakness, muscle pain, vomiting, diarrhea, abdominal pain, or hemorrhage (i.e., bleeding gums, blood in urine, nose bleeds, coffee ground emesis or melena).

II. <u>Patient Management</u>

A. Healthcare workers should implement standard, contact, and droplet precautions if a patient is exhibiting early symptoms (i.e., fever, fatigue, headache, muscle pain).

B. Immediately isolate patients with a relevant travel and exposure history, and those present with fever and symptoms as defined above.

C. Place patient in a private room or area, preferably with a private bathroom or covered commode.

D. Implement administrative and environmental controls (such as a designated area for further evaluation of patients with possible EVD).
   i. At an administrative level, the facility's infection prevention management system, in collaboration with the facility's occupational health department, should establish and implement triage protocols to effectively identify patients who may have Ebola and institute the precautions detailed in this document.
   ii. Designate individuals as site managers responsible for overseeing the implementation of precautions for healthcare workers and patient safety. A site manager's sole responsibility is to ensure the safe and effective delivery of Ebola treatment. These individuals are responsible for all aspects of Ebola infection control including supply monitoring and evaluation with direct observation of care before, during, and after staff enter an isolation and treatment area.

iii. At least one site manager should be on-site at all times in the location where the Ebola patient is being cared for.
iv. Identify critical patient care functions and essential healthcare workers for care of Ebola patients, for collection of laboratory specimens, and for management of the environment and waste ahead of time.
v. Ensure healthcare workers have been trained in all recommended protocols for safe care of Ebola patients before they enter the patient care area.
vi. Train healthcare workers on all PPE recommended in the facility's protocols. Healthcare workers should practice donning and doffing procedures and must demonstrate during the training process competency through testing and assessment before caring for Ebola patients.
vii. Use trained observers to monitor for correct PPE use and adherence to protocols for donning and doffing PPE, and guide healthcare workers at each point of use using a checklist for every donning and doffing procedure.
viii. Document training of observers and healthcare workers for proficiency and competency in donning and doffing PPE, and in performing all necessary care related duties while wearing PPE.
ix. Designate spaces so that PPE can be donned and doffed in separate areas.
x. Identify and isolate the Ebola patient in a single patient room with a closed door and a private bathroom as soon as possible.
xi. Limit the number of healthcare workers who come into contact with the Ebola patient (i.e., avoid short shifts), and restrict non-essential personnel and visitors from the patient care area.
xii. Monitor the patient care area at all times, and at a minimum, log entry and exit of all healthcare workers who enter the room of an Ebola patient.
xiii. Ensure that a trained observer watches closely each donning and each doffing procedure, and provides supervisory assurance that donning and doffing protocols are followed.
xiv. Ensure that healthcare workers have sufficient time to don and doff PPE correctly without disturbances.
xv. Ensure that practical precautions are taken during patient care, such as keeping hands away from the face, limiting touch of surfaces and body fluids, preventing needle stick and sharps injuries, and performing frequent disinfection of gloved hands using an alcohol-based hand rub, particularly after handling body fluids.
xvi. Disinfect immediately any visibly contaminated PPE surfaces, equipment, or patient care area surfaces using an EPA-registered disinfectant wipe.
xvii. Perform regular cleaning and disinfection of patient care surfaces, even absent visible contamination.
xviii. This should be performed only by nurses or physicians as part of patient care activities in order to limit the number of additional healthcare workers who enter the room.
xix. Implement observation of healthcare workers in the patient room, if possible (i.e., glass-walled intensive care unit [ICU] room, video link).

E. Facilities must be capable of providing supportive care, including other laboratory testing required for patient management, until receipt of laboratory test results.

F. Facilities must be prepared to evaluate and test for alternative diagnoses that could also be the cause of the patient's signs and symptoms (such as malaria or typhoid fever) based on the areas visited.
G. Patient care decisions should be based on the patient's medical status, history, and evaluation for alternative diagnoses.
H. Avoid unnecessary direct contact.
    i. Designate staff members who have been trained in proper PPE to evaluate identified patients.
I. If a patient is exhibiting severe EVD symptoms (e.g., bleeding, vomiting, or copious diarrhea) health care workers must don full PPE.
J. PPE should be donned and doffed as outlined in CDC Guidance on Personal Protective Equipment To Be Used by Healthcare Workers During Management of Patients with Ebola Virus Disease in U.S. Hospitals, Including Procedures for Putting On (Donning) and Removing (Doffing).
K. Health care facilities must provide onsite management and oversight on the safe use of PPE to include continuous safety checks through direct observation of healthcare workers during the process of putting on (donning) and taking off (doffing) PPE.
L. Notify facility Infection Prevention staff and maintain a log of people entering the patient room.
M. Perform only urgent or emergent procedures.
N. Immediately contact appropriate local health department or health service region.

III. <u>Laboratory Testing – In-House Clinical-based</u>
A. Healthcare providers are directed to contact local/regional Public Health in order to provide awareness of any patients possibly suspected of having Ebola in their areas and to evaluate the patient symptoms and risk factors.
B. The CDC recommendations to U.S. clinical laboratories for safe management of all diagnostic specimens from persons under monitoring for EVD are the same as recommendations for other known infectious diseases that are transmitted through blood or body fluids, such as HIV and hepatitis viruses.
C. Clinical laboratories in acute care facilities must also do routine laboratory testing for a person under monitoring, such as traditional chemistry, hematology, or other laboratory testing used to support and treat patients.
D. Any person collecting or testing specimens from a patient with suspect EVD should adhere to strict full PPE guidelines, as outlined in CDC Ebola Guidelines: Personal Protective Equipment for Health Care Personnel.
E. For transporting specimens within the facility, place them in a durable, leak-proof secondary container. Hand walk specimens to the laboratory. Do not use any pneumatic tube system for transporting suspected EVD specimens.
F. During specimen testing, a certified class II Biosafety cabinet or Plexiglas splash guard should also be used, as well as all manufacturer-installed safety features on all laboratory equipment.
G. In the case of a spill in the laboratory, the basic principles for blood or body substance spill management are outlined in the United States OSHA Blood Borne Pathogens Standards. Clean and disinfect surfaces with a U.S. Environmental Protection Agency

(EPA)-registered facility disinfectant with a label claim for a non-enveloped virus (i.e., norovirus, rotavirus, adenovirus, and poliovirus). Although there are no products with specific label claims against the Ebola virus, enveloped viruses such as Ebola are susceptible to a broad range of facility disinfectants used to disinfect hard, non-porous surfaces.

IV. Laboratory Testing – Ebola Specific

A. Upon notification and consultation, the local/regional Public Health will consult with the DSHS Emerging and Acute Infectious Disease Branch (EAIDB) to determine if the patient meets the Ebola testing criteria.
B. DSHS, in coordination with the local/regional Public Health, will consult with Centers for Disease Control and Prevention (CDC) for approval to test. If approved, the health department epidemiologist will receive the CDC PUM (public use microdata) unique number, which will be used for future communications.
C. DSHS will contact the epidemiologist for Local Health Department(s) if the patient is located in their service area to discuss approvals and provide pertinent information including: patient name, CDC PUM number, date of birth, symptoms, risk factors, and date of symptom onset.
D. For HSR 7 Region, local Public Health in coordination with HSR 7 will coordinate with the facility to provide information regarding packaging and shipping of the specimen to the BSL 4 Laboratory at DSHS Central Office in Austin.
E. The Ebola testing laboratory will provide guidance for the proper packaging and shipping of specimens.
F. Specimens from suspected Ebola patients should be packaged as Category A specimens and shipped as "Suspect Category A Infectious Substance."
G. Laboratory individuals must be certified as a Category A shipper prior to packaging the specimen and completing the shipper's declaration forms required by commercial shipping companies.
H. The Ebola testing laboratory will not be responsible for providing a courier for the shipment of specimens; the facility will need to have a plan for shipment of specimens.
I. Specimens should be transported in a timely manner to the laboratory and the laboratory will provide results as rapidly as possible.

V. Test Results and Disposition

A. If testing is not indicated or the result is **negative**, alert the appropriate local health department or health service region prior to discharge for appropriate discharge instructions and possible monitoring.
B. If result of testing is **positive,** continue with isolation and appropriate care, and determine health care worker precautions as outlined above.
C. DSHS will determine whether or not to transfer a patient with EVD to an Ebola Treatment Center after discussion with appropriate health care administrators and medical staff. The decision will be based on the capabilities and capacity of the facility where the patient is diagnosed, EMS capability for transportation, patient status, and patient preferences.

D. If transfer to an EVD treatment facility is approved, facilities must be prepared to provide supportive care for up to 48 hours until transfer is coordinated.
E. The coordination of transportation asset between the sending facility and the receiving facility will be done by Public Health or their designee.
F. The sending and receiving facilities will follow all current EMTALA regulations regarding patient transfer to a higher level of care.
G. After patient transport, perform clean-up and disinfection according to CDC Ebola Guidelines: Disposal, Transport, and Incineration of Ebola Waste for Health Care Facilities and EMS. Do not reuse any durable medical equipment until it has been appropriately cleaned and disinfected as outlined at CDC

VI. Environmental Cleaning

A. There is no epidemiologic evidence of Ebola virus transmission via either the environment or fomites that could become contaminated during patient care (e.g., bed rails, door knobs, laundry). However, given the apparent low infectious dose, potential of high virus titers in the blood of ill patients, and disease severity, higher levels of precaution are warranted to reduce the potential risk posed by contaminated surfaces in the patient care environment.
B. Be sure staff (this should be performed only by nurses or physicians as part of patient care activities in order to limit the number of additional healthcare workers who enter the room) wear recommended personal protective equipment (PPE) to protect against direct skin and mucous membrane exposure of cleaning chemicals, contamination, and splashes or spatters during environmental cleaning and disinfection activities.
C. Use of reusable PPE during an Ebola or other highly infectious disease incidents are not recommended. However, if reusable PPE is used, the PPE should be disinfected and kept in the room or anteroom.
D. Environmental cleaning staff require training in proper use of PPE and disinfection processes. Cleaning staff should be supervised and continually monitored in the use of PPE, disinfection, and waste disposal processes to ensure staff and environmental safety is assured. Use a U.S. Environmental Protection Agency (EPA)-registered facility disinfectant with a label claim for a non-enveloped virus (e.g., norovirus, rotavirus, adenovirus, poliovirus) to disinfect environmental surfaces in rooms of patients with suspected or confirmed Ebola virus infection. EPA-registered facility disinfectants with label claims against non-enveloped viruses (e.g., norovirus, rotavirus, adenovirus, poliovirus) are broadly antiviral and capable of inactivating both enveloped and non-enveloped viruses.
E. Avoid contamination of reusable porous surfaces that cannot be made single use. Use only a mattress and pillow with plastic or other covering through which fluids cannot be absorbed. Do not place patients with suspected or confirmed Ebola in carpeted rooms. Remove all upholstered furniture and decorative curtains from patient rooms before use.
F. Routine cleaning of the PPE doffing area should be performed at least once per day and after the doffing of grossly contaminated PPE. Cleaning should be performed by a healthcare worker wearing clean PPE. An EPA registered facility disinfectant with

label claims against non-enveloped viruses (e.g., norovirus, rotavirus, adenovirus, poliovirus) must be used for disinfection. When cleaning and disinfection are complete, the healthcare worker should carefully doff PPE and perform hand hygiene.

G. To reduce exposure among staff to potentially contaminated textiles (cloth products) while laundering, discard all linens, non-fluid-impermeable pillows or mattresses, and textile privacy curtains into the waste stream and disposed of appropriately.

VII. Waste Management

A. Ebola virus is classified as a Category A infectious substance regulated by the U.S. Department of Transportation's (DOT) Hazardous Materials Regulations (HMR, 49 C.F.R., Parts 171-180). Any item transported offsite for disposal that is contaminated or suspected of being contaminated with a Category A infectious substance must be packaged and transported in accordance with the regulation. This includes medical equipment, sharps, linens, used healthcare products such as soiled absorbent pads or dressings, kidney-shaped emesis pans, portable toilets; and used PPE (gowns, masks, gloves, goggles, face shields, respirators, booties, etc.) or byproducts of cleaning contaminated or suspected of being contaminated with a Category A infectious substance.

B. EVD waste can only be transported for disposal or incineration if prepared according to federal and state guidelines.

C. Layered waste packaging process:

i. Bag waste in approved, properly labeled individual plastic film bags such as red biohazard bags.

ii. Prior to closure, treat potentially contaminated waste with a U.S. Environmental Protection Agency (EPA)-registered facility disinfectant with a label claim for a non-enveloped virus (e.g., norovirus, rotavirus, adenovirus, and poliovirus).

iii. Wrap objects with sharp edge to prevent tearing or puncture of the plastic bag.

iv. Seal the first filled plastic film bags, with the sealed closure facing upwards, within a second container, consisting of a second approved plastic film bag. Sealing consists of tying the bag with a knot, heat sealing, tape, adhesive, or another method which insures contents will not leak, but does not tear or puncture the bags.

v. Disinfect exterior of second container with an EPA-registered facility disinfectant with a label claim for a non-enveloped virus (e.g., norovirus, rotavirus, adenovirus, and poliovirus).

vi. Place two-layer waste package into a properly labeled, rigid, Category A Infectious Waste container. Outer package must be either a rigid UN Standard or Department of Transportation approved non bulk packaging, such as a polyethylene over pack drum or a minimum triple wall fiberboard containing a 6 mil plastic wall liner.

vii. Place absorbent material sufficient to absorb all free liquid (if any) in the bottom of the rigid outer package.

viii. Seal and disinfect the exterior surface of the outer package. Before loading for transport ensure the package is not leaking and is closed and sealed as recommended.

ix. Category A infectious substance must be accompanied by a shipping paper which includes all of the following:

a) UN number and proper shipping name for the applicable Category A infectious substance – for Ebola,
b) The shipping name is "UN 2814, Infectious Substances, affecting humans."
c) Hazard class: Division 6.2 (infectious)
d) Packing group: N / A
e) Type and quantity of packaging
f) Emergency response information (e.g., telephone number)
g) Employees who prepare hazardous materials for transportation are hazardous materials employees and must be trained as such. (See OSHA Standards for Protecting Workers From Ebola Virus.) The training mustinclude all of the following:
    1) General awareness
    2) Function-specific training
    3) Safety
    4) Security awareness training
    5) Modal-specific training, such as driver training