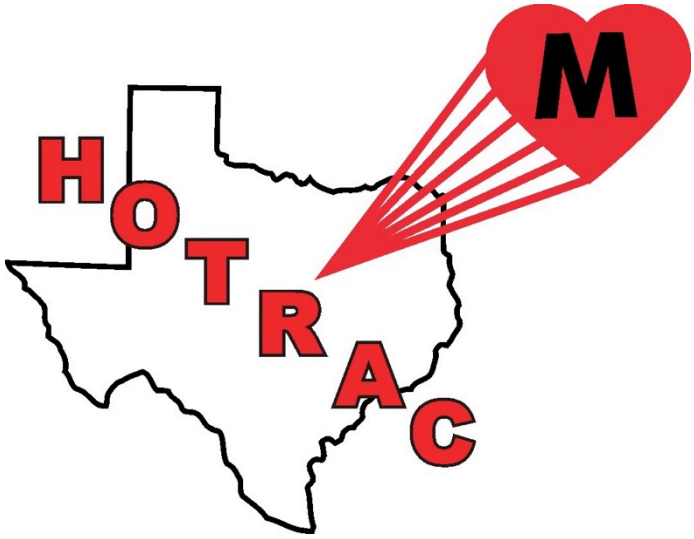
Heart of Texas
Regional Advisory Council

Regional Emergency Healthcare System Plan



Heart of Texas Regional Advisory Council (HOTRAC)
2911 Herring Avenue
Waco, Texas 76708

Email: info@hotrac.org

For the service delivery area including
Bosque, Falls, Hill, Limestone, and McLennan Counties.

Phone: (254) 202-8740
Fax: (254) 202-8749

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Organization and Service Area

Organization

The Heart of Texas Regional Advisory Council (Heart of Texas RAC) is comprised of the Heart of Texas counties of Bosque, Falls, Hill, Limestone, and McLennan. The Heart of Texas RAC was organized and completed the incorporation process in 1994 and became an approved 501(c) (3) organization in 1995.

The Heart of Texas RAC Vision Statement is a lead Regional Advisory Council in the State of Texas that achieves improved quality of life by reducing morbidity/mortality for emergency healthcare conditions within our Trauma Service Area (TSA).

The Heart of Texas RAC Mission Statement is to reduce death/disability related to acute illness and injury by providing infrastructure and leadership necessary to sustain an inclusive acute care, trauma, emergency medical, and disaster system in all phases within our Trauma Service Area (TSA).

Service Area/Facilities

The Heart of Texas RAC service area is comprised of four rural counties (Bosque, Falls, Hill, and Limestone) and one suburban county (McLennan). This geographical boundary is known as Trauma Service Area (TSA) M as well as Perinatal Care Region (PCR) M. The terrain in this Region is primarily black-land prairie with rolling hills located in the Bosque county area. Interstate 35, a heavily traveled transportation artery, transects McLennan and Hill Counties and is the source of many multi-vehicular crashes annually. Also, heavily traveled State Highway 6 traverses McLennan, Falls and Bosque counties. State Highway 84 traverses McLennan and Limestone Counties. Most other transportation primarily occurs via farm-to-market roads and county-maintained roadways.

Bosque County (population 18,685) encompasses 982.98 square miles. Bosque County's median income is $50,882 annually and 23.4% of the population does not have health insurance. **Goodall-Witcher Hospital** is in the south-central portion of the county in Clifton, Texas. Goodall-Witcher is a 25-bed acute care facility located in Clifton, Texas. Goodall-Witcher has general surgical capability and is a designated Level IV Trauma Facility. Additionally, the facility is designated as a Level I Maternal Facility and a Level I Nursery facility. There is one (1) ground emergency medical service (EMS) and multiple first responder organizations that provide pre-hospital care in Bosque County.

Hill County (population 36,649) is in the northern portion of the Region and encompasses 958.86 square miles. Hill County's median income is $48,823 and 22.8% of the population does not have health insurance. Hill Regional Hospital is in the center of the county in Hillsboro, Texas. **Hill Regional Hospital** is a 25-bed acute care facility with surgical capability and is a designated Level IV Trauma Facility, Level I Maternal & Nursery Facility. There are three (3) EMS ground providers and multiple first responder organizations that provide pre-hospital care in Hill County. There are two air medical provider bases located on the west and east sides of the county.

Located in the eastern-most portion of the Region, **Limestone County** (population 23,437) includes 905.29 square miles of primarily farm and ranch land. Limestone County's median income is $42,680 and 21.8% of

the population does not have health insurance. **Parkview Regional Hospital** is in Mexia, Texas. Parkview Regional Hospital is a 58-bed acute care facility with some general surgical capability and is a Level IV Trauma Facility and has an accreditation from the Society of Cardiovascular Patient Care (SCPC) as a Chest Pain Center. **Limestone Medical Center** is in Groesbeck, Texas. Limestone Medical Center is a 20-bed acute care facility and is a Level IV Trauma Facility. There are two (2) EMS ground providers and multiple first responder organizations that provide pre-hospital care in Limestone County.

Falls County (population 17,267) is in the southern-most part of this Region and encompasses 765.48 square miles. Falls County's median income is $38,032 and 20.7% of the population does not have health insurance. Falls Community Hospital is in Marlin, Texas. **Falls Community Hospital** is a 36-bed acute facility. There is one (1) EMS ground service and multiple first responder organizations that provide pre-hospital care in Falls County.

McLennan County (population 256,623) is the only urban county in the Region and covers 1037.10 square miles in the Heart of Texas. McLennan County's median income is $48,199 and 18.4% of the population does not have health insurance. Waco is the largest city in the county with a population of approximately 124,805; a median income of $36,004; and 15.4% of the population does not have health insurance. Both acute care facilities are located within the Waco city limit: **Ascension Providence** and **Baylor Scott & White Hillcrest Medical Center**. Ascension Providence is a 285-bed acute care facility with surgical capability, which includes a 48-bed adult psychiatric division. Ascension Providence is currently "in pursuit status" of Level IV designated trauma facility. The facility has received certification from Joint Commission as a Primary Stroke Center and accreditation from the Society of Cardiovascular Patient Care (SCPC) as a Chest Pain Center with PCI Capability. Additionally, Ascension Providence is designated as Level II Maternal & Neonatal Facility. Baylor Scott & White Hillcrest Medical Center, in Waco, Texas, is a 236-bed acute care facility with surgical capability. Baylor Scott & White Hillcrest Medical Center is the Region's Lead Trauma Facility as the only Level II Trauma Center in HOTRAC. The facility has also received Joint Commission certification as a Primary Stroke Center and a Primary Chest Pain Center with PCI Capability. Hillcrest is also the Lead Perinatal Facility with the only Level III Maternal & NICU designations. There are two psychiatric facilities located in Waco: Central Texas Veterans Healthcare System – Waco Campus and the Waco Center for Youth (a state facility). There are four (4) EMS ground services and multiple first responder organizations that provide pre-hospital care in McLennan 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 Heart of Texas RAC promotes and supports First Responder Organizations (FRO) and Volunteer Fire Departments (VFD) to help ensure expedited pre-hospital emergency care for our residents and those traveling in our Region.

Heart of Texas Regional Advisory Council
EMS 9-1-1 PROVIDERS (Ground)

American Medical Response (AMR) - Waco
Heather Hamilton, Director of Operations
6800 Woodway Drive
Waco, Texas 76712
(254) 523-9313
Fax: (877) 750-1889
Dispatch: AMR at Waco Dispatch 833-922-2739
Level of Service: BLS with MICU capabilities
Medical Director: Dr. Taylor Ratcliff
Infection Control Contact – Heather Hamilton

American Medical Response (AMR) – Falls County
Heather Hamilton, Director of Operations
6800 Woodway Drive
Waco, Texas 76712
(254) 523-9313
Fax: (877) 750-1889
Dispatch:
Level of Service: BLS with MICU capabilities
Medical Director: Dr. Taylor Ratcliff
Infection Control Contact – Heather Hamilton

Crawford EMS
Marilyn Judy - President
P.O. Box 341
Crawford, Texas 76638
(254) 486-2101
Fax: (254) 486-2244
Dispatch: McGregor Police Department
Level of Service: BLS
Medical Director: Dr. George Smith
Infection Control Contact – Marilyn Judy

CareFlite - Ground
Corey Barker - Supervisor
3110 S Great Southwest Parkway
Grand Prairie, Texas 75052
Cell: (817) 240-4743
Fax: (817) 645 9383
Dispatch: (800) 442 6260
Level of service: MICU
Medical Director: Dr. Robert Simonson
Infection Control Contact – Tamara Pelker
(972) 339-4218, fax (972) 606-1027

Coryell Health EMS
Daniel Lay – EMS Manager
1507 W Main Street
Gatesville, Texas 76528
Cell: (254) 534-2967 Office: (254) 865-1248
Dispatch: McGregor Police Department
Level of Service: BLS with MICU
Medical Director: Dr. Jeff Bates
Infection Control Contact – Jeanne Griffith
(254) 248-6381

Hillsboro Fire & EMS
John Martin – EMS Captain
P.O. Box 568
Hillsboro, Texas 76645
(254) 582-2401
Fax: (254) 582-9155
Dispatch: (254) 582-2141 (non-emergency number)
Level of Service: BLS with MICU capabilities
Medical Director: Dr. Charles Carpenter
Infection Control Contact: John Martin

Limestone Medical Center EMS
Shelton Chapman - Director
701 McClintic Dr.
Groesbeck, Texas 76642
(254) 729-3097
Fax: (254) 729-3532
Dispatch: Limestone County Sheriff's Office
Level of Service: BLS w/ MICU capabilities
Medical Director: Dr. Frank Boyd
Infection Control Contact: Heather Flippin
(254) 729-3281

Mexia Fire & EMS
Brent Rudd – EMS Director
P.O. Box 207
Mexia, Texas 76667
(254) 562-4188
Fax: (254) 472-0301
Dispatch: Limestone County Sheriff's Office
Level of Service: BLS with MICU capabilities
Medical Director: Dr. Kevin Jensen
Infection Control Contact: Brent Rudd

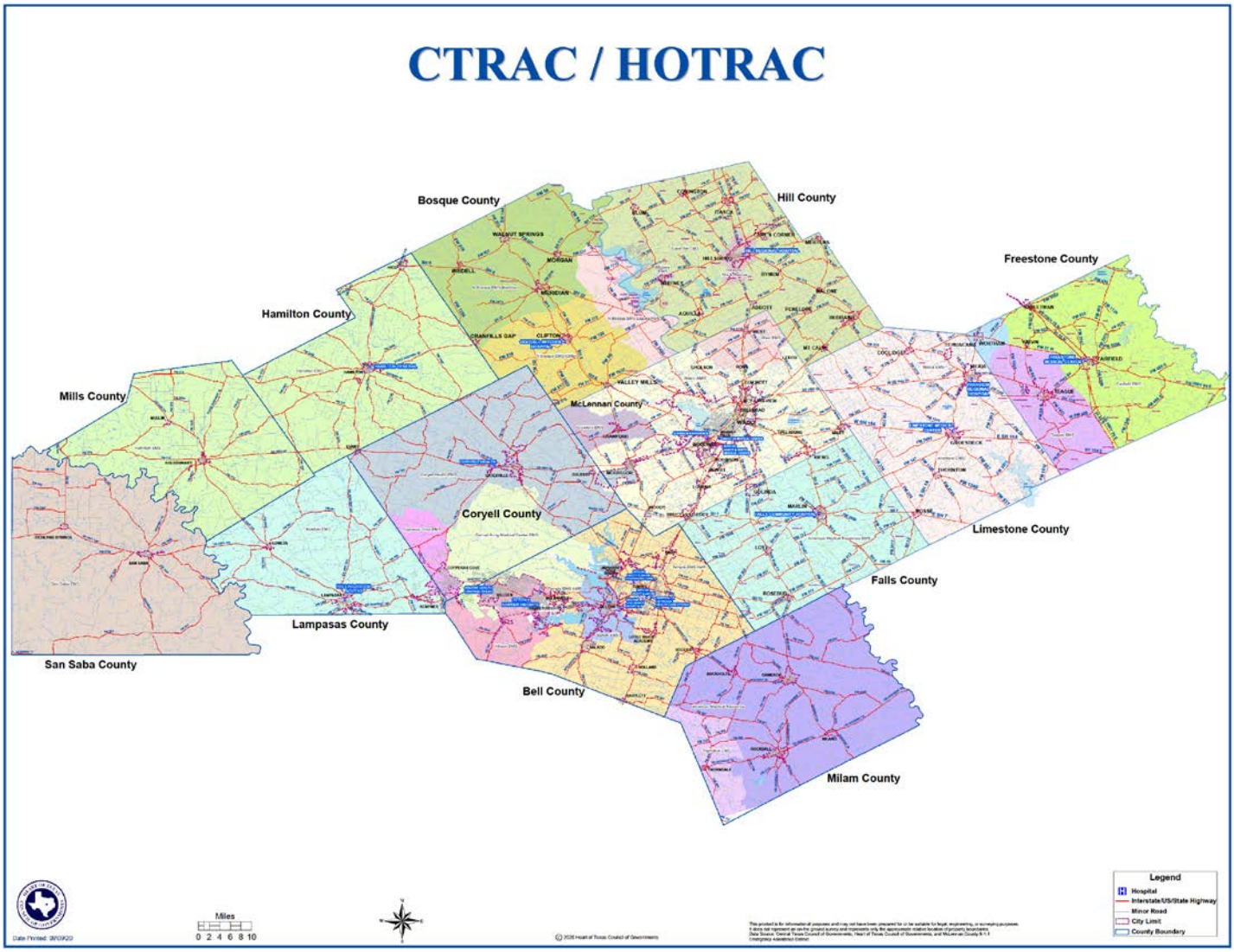
Heart of Texas Regional Advisory Council
EMS 9-1-1 PROVIDERS (Ground) – continued

North Bosque EMS
Linda Thiele – EMS Director
P.O. Box 432
Meridian, Texas 76665
(254) 435-2070
Fax: (254) 435-2560
Dispatch: Bosque County Sheriff's Office
Level of Service: BLS with MICU capabilities
Medical Director: Dr. Justin Squyres
Infection Control Contact: Linda Thiele

West Volunteer Ambulance Service
Tom Marek – Supervisor
P.O. Box 461
West, Texas 76691
Dispatch: (254) 826-3778
(254) 826-3779
Fax: (254) 826-3231
Level of Service: BLS with MICU capabilities
Medical Director: Dr. George Smith
Infection Control Contact: Tom Marek

Whitney EMS
Chris Bentley – City Manager
Wayland Price – EMS Director
(254) 337-0149
Station: (254) 694-2261
Fax: (254) 694-6734
Level of Service: BLS with MICU capabilities
Medical Director: Dr. Clayton Pickering
Infection Control Contact: Wayland Price

The Heart of Texas Council of Governments (HOTCOG) maintains the map of EMS ground provider coverage in this Region.



**Please note that the COG boundaries have one more county (Freestone) than the Heart of Texas RAC Region (TSA M).

Heart of Texas Regional Advisory Council
AIR MEDICAL – Roto-wing Providers Available

Air Evac LifeTeam – Hillsboro (AEL 51)
Steven Clinkscales, Program Director
Cell (417) 293-2626
Base – (254) 580-9071
Fax – (254) 580-9085
Dispatch – (800) 247-8322
Medical Director – Dr. Darioush Kavouspour
Infection Control Contact: Jennifer Fletcher
(636) 695-5336

Air Evac LifeTeam – Fairfield (AEL 53)
Mike Reid – Program Director
Cell – (903) 390-2314
Base – (903) 389-7266
Dispatch – (800) 247-8322
Medical Director – Dr. Darioush Kavouspour
Infection Control Contact: Jennifer Fletcher
(636) 695-5336

Air Evac LifeTeam – Killeen (AEL 66)
Justin Bright, Program Director
Cell – (417) 274-0952
Base – (254) 628-1275
Fax – (254) 519-1288
Dispatch – (800) 247-8322
Medical Director – Dr. Darioush Kavouspour
Infection Control Contact: Jennifer Fletcher
(636) 695-5336

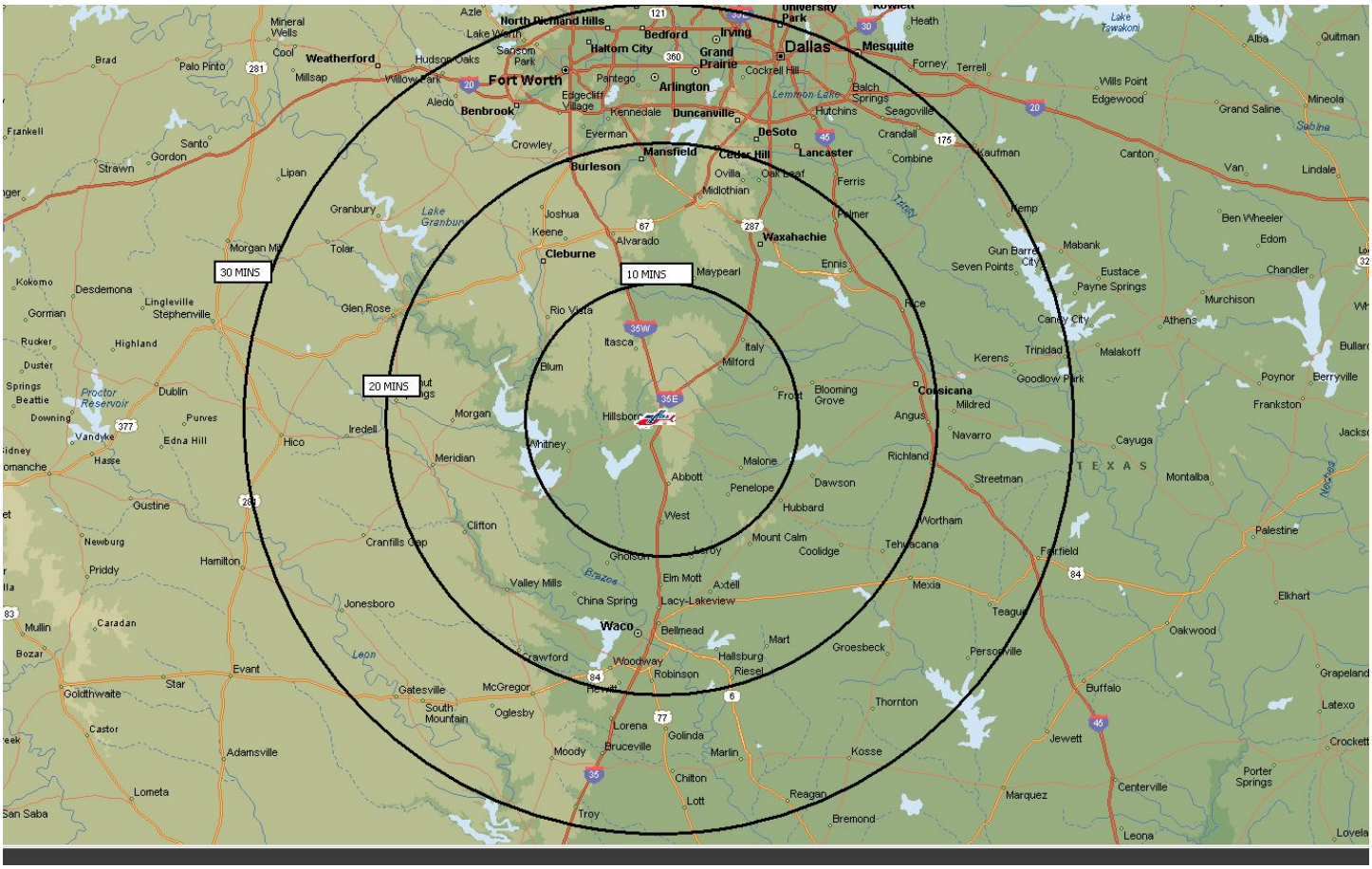
CareFlite (air) - Whitney
Base – (254) 694-1443
Dispatch – (972) 660-2839
Lynn Lail, Chief Flight Nurse
(contact for all CareFlite Air needs)
Cell (817) 905-1429
(972) 339-4238
Fax – (972) 688-3144
Dispatch – (800) 247-8322
Medical Director – Dr. Robert Simonson
Infection Control Contact: Tamara Pelker
(972) 339-4218

PHI Med 1-5 – Temple
David Wuertz, Base Supervisor
(254) 251-0121
Base (254) 724-6720
Dispatch – (877) 435-9744
Medical Director – Dr. Jay Kovar
Associate Medical Director – Dr. Taylor Ratcliff

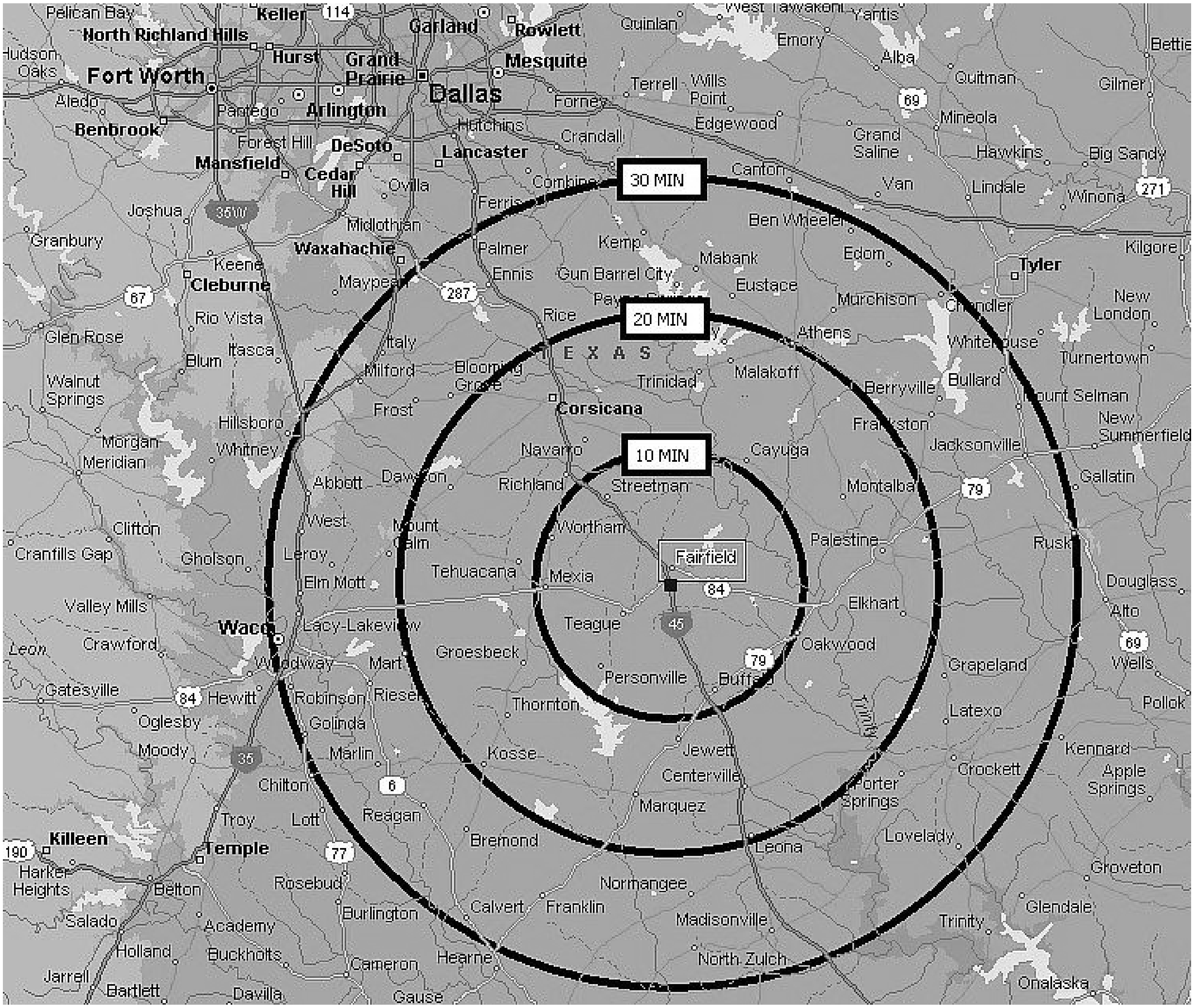
PHI Air Medical 6 – Corsicana
Snapper Pierce
Base (903) 872-0200
Dispatch – (877) 435-9744
Medical Director – Dr. Jay Kovar

St Joseph Air Medical 12 – Bryan
Amy Richardson, Base Supervisor
Base (979) 778-6028
Medical Director – Dr. Jeff Jarvis

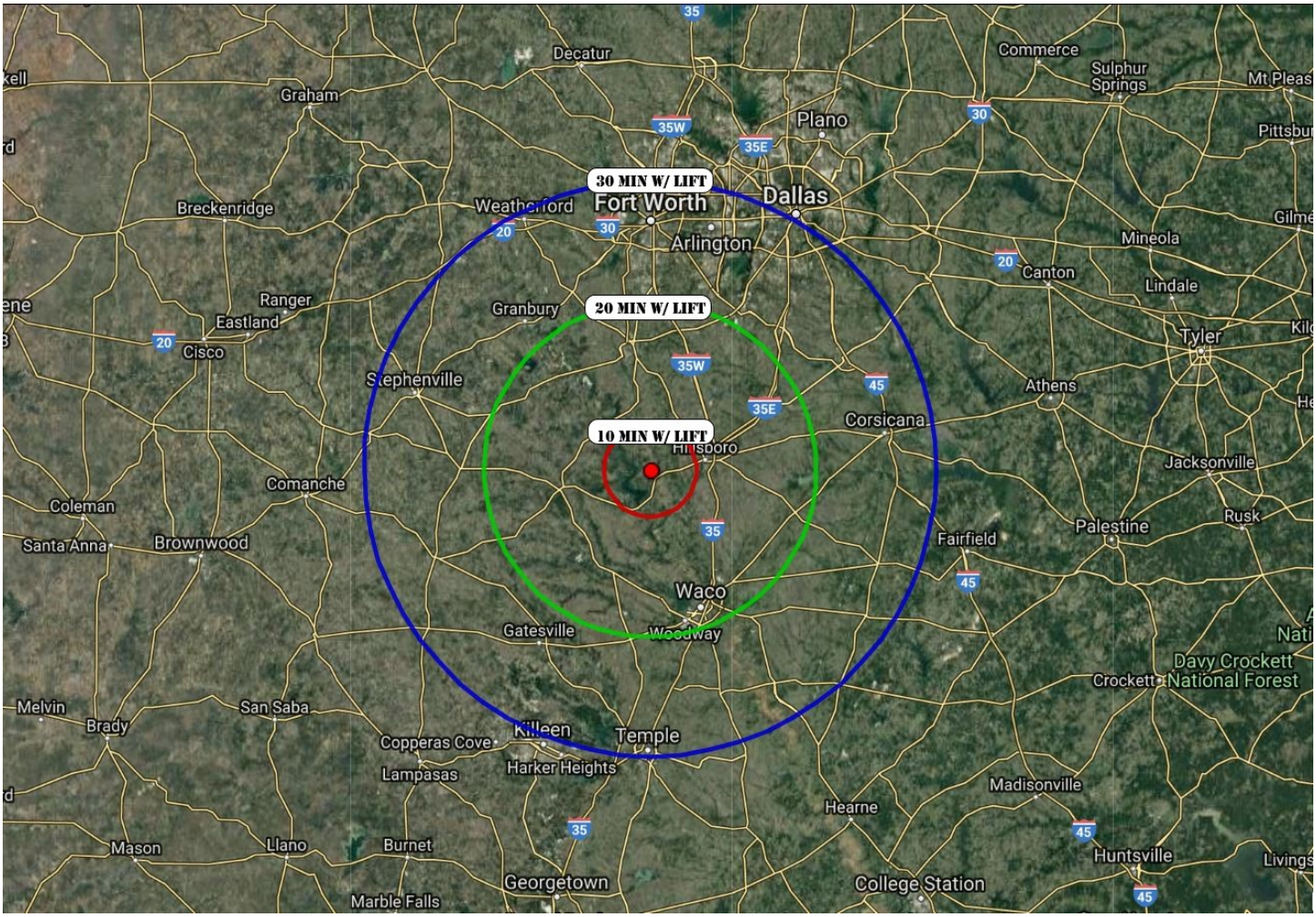
Air Evac Life Team – 51 (Hillsboro)



Air Evac Life Team – 53 (Fairfield)



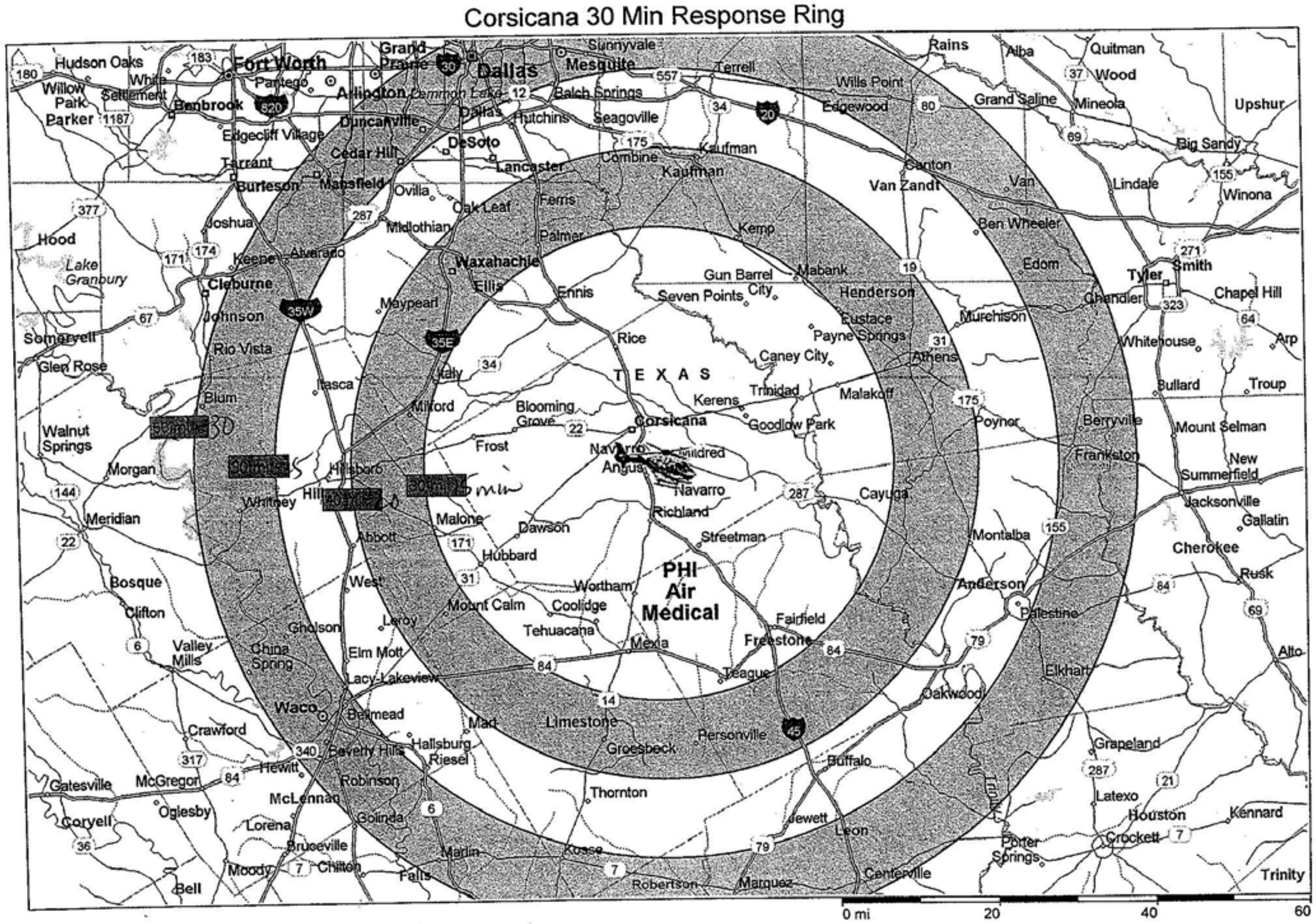
CareFlite N145CF – Whitney



PHI Air Medical 6 (Corsicana)

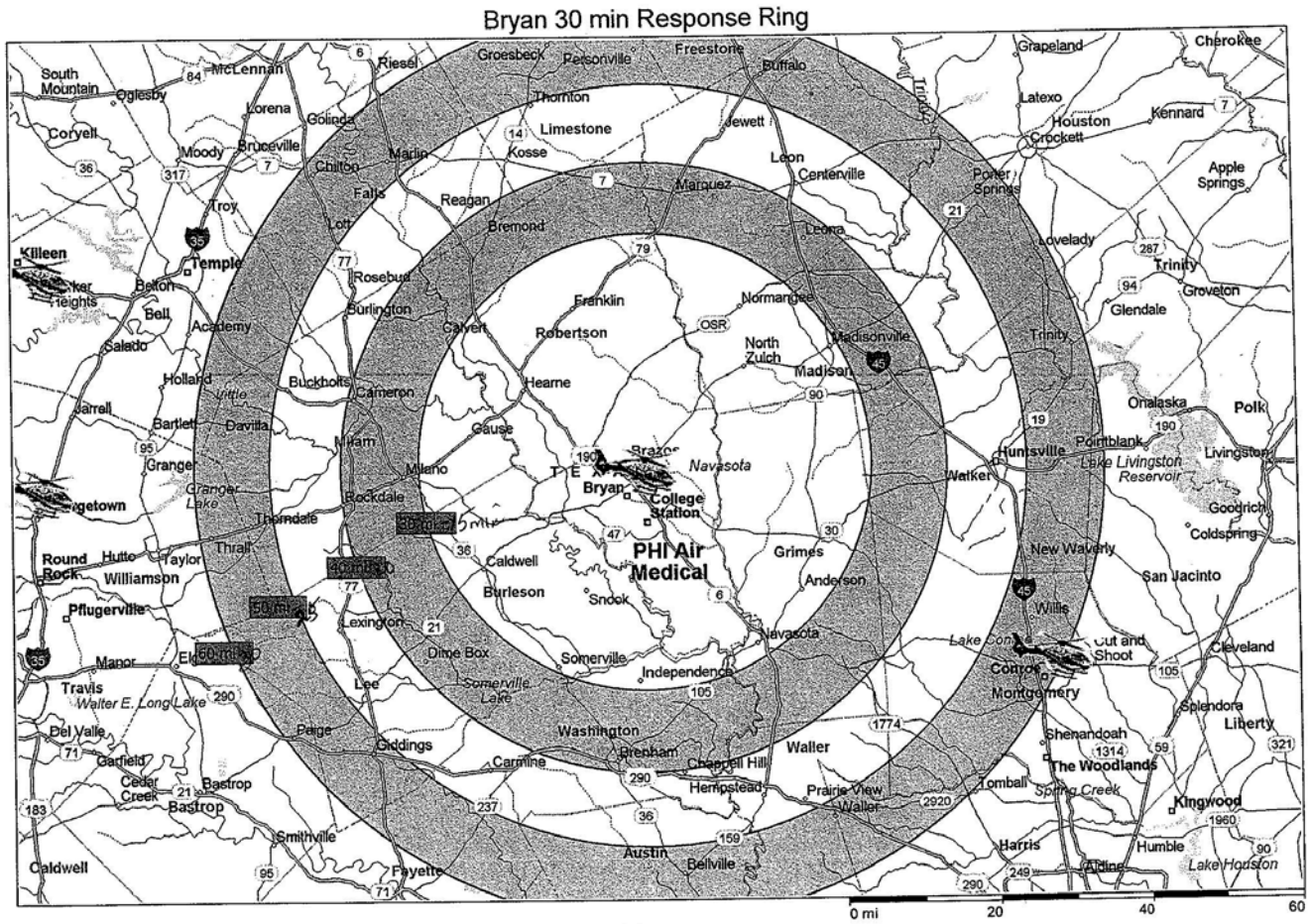
***divide the air miles by 2 for approximate ETA in minutes (i.e., 30 miles = 15 min ETA).**

Corsicana 30 Min Response Ring



St. Joseph's Med 12 (Bryan)

***divide the air miles by 2 for approximate ETA in minutes (i.e., 30 miles = 15 min ETA).**



Heart of Texas Regional Advisory Council
AIR MEDICAL – Fixed Wing Providers Available

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

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

Heart of Texas Regional Advisory Council
Acute Care Facilities

Ascension Providence

6901 Medical Parkway
Waco, TX 76712
Main: (254) 751-4000
Fax: (254) 751-4789 (Admin)
ED: (254) 751-4180
ED Fax: (254) 751-4177
RAC POC: Sunny Deeds
ED POC: Charlene Yousey-Wilcox
Trauma POC: Emily Vickery
Cardiac POC: Bronwyn Gilliam
Stroke POC: Kelly Mullins
Pediatrics POC: Angie Robb
Women & Newborns Contact: Sunny Deeds
Perinatal Coordinator: Lauren Montgomery
Infection Preventionist: Alicia Urbanovsky

Leadership:
CEO – Philip Patterson
CNO – Cyndy Dunlap
CMO – Dr. Brian Becker

Baylor Scott & White Hillcrest Medical Center

100 Hillcrest Medical Blvd.
Waco, TX 76712
Main: (254) 202-2000
Fax: (254) 202-9441
ED Charge: (254) 202-0181
ED Fax: (254) 202-9149
RAC POC: Holly Ivy
Trauma POC: Lori Robb
ED POC: April Hayes/Holly Ivy
Cardiac POC: Jennifer Rich
Stroke POC: Krissi Hart
Women & Children POC: Amanda Truelove
NICU Contact: Maria Samaniego
Pediatric Contact: Kristi Sprayberry
Perinatal Coordinator: Lauren Abendshein
Infection Preventionist: Rachel Washburn

Leadership:
CEO – Becky Hardie (interim)
CFO – Shelly Mach
CMO – Dr. Jim Morrison
CNO – Lajuana Jones (interim)
VPO – Brad Crye

Falls Community Hospital

PO Box 60
Marlin, TX 76661
Main: (254) 883-3561
Fax: (254) 883-6066
CEO: Jessica Ford (interim)
CFO: Lewis Robbins
DON: Temperance Johnson
Infection Control Practitioner: Tashsa Burnett

Goodall-Witcher Hospital

PO Box 549
Clifton, TX 76634
Main: (254) 675-8322
Fax: (254) 675-
ED: (254) 675-7370
ED Fax: (254) 675-8964
RAC POC: Valya Blasdell
Women & Children POC: Casandra Cox
Infection Preventionist:

Leadership:
CEO – Adam Willmann
CNO – Gena Speer
CFO – Vicki Gloff

Hill Regional Hospital

101 Circle Drive
Hillsboro, TX 76645
Main: (254) 580-8500
Fax: (254) 582-2144
ED: (254) 580-8911
ED Fax: (254) 582-0587
RAC POC: Janice Markwardt
Women & Children POC: Kay Tucker
Infection Preventionist: Michelle Valerio

Leadership:
Administrator/CFO – Susan Popp
CNO – Catana Villarreal

Limestone Medical Center

701 McClintic Drive
Groesbeck, TX 76642
Main: (254) 729-3281
Fax: (254) 729-2689
ED: (254) 729-3281 x 2270
ED Fax: (254) 729-4304
RAC POC: Sarah Wyatt
Infection Preventionist: Corey Tunnell

Leadership:
CEO – Larry Price
COO/CFO – Michael Williams
CIO – B.C. Lee
CMO – Dr. Kody Yerger
CNO – Jean Wragge

Parkview Regional Hospital

600 S Bonham
Mexia, TX 76667
Main: (254) 562-5332
Fax: (254) 562-7532
ED: (254) 562-0408 x 1216
ED Fax: (254) 562-9279
RAC POC: Crystal Bonner
Infection Control Practitioner: Tami Smith

Leadership:
CEO – Robert Rupp
Asst CNO – Edwina Henry
CFO – Jack Wilcox
CMO – Dr. Phillip Jones

Facility Capabilities

Use matrix to determine closest appropriate facility.

	Ascension Providence	BSW - Hillcrest	Falls Community Hospital	Goodall-Witcher Hospital	Hill Regional Hospital	Limestone Medical Center	Parkview Regional Hospital
RAC Member	Yes	Yes	No	Yes	Yes	Yes	Yes
Licensed Beds	285	236	36	25	25	20	58
ICU/CCU	*30*	*24*					*6*
Med/Surg	*180*	*96*	*36*	*23*	*21*	*20*	*43*
NICU		*28*					
Postpartum	*16*	*31*		*2*	*4*		
Antepartum	*1*	*1*					
Pediatric		*6*					
LDRP	*2*						
Psych	*48*						*9*
Comp Med Rehab		*24*					
Continuing Care	*8*	*2*					
Intermediate Care		*24*					
Staffed Beds	271	236	36	25	25	20	58
Surge Capacity	57	47	7	5	5	4	12
Critical Access Recognized				Yes	Yes	Yes	
Cardiac Accreditation	PCI	PCI	ND	ND	ND	ND	CP
Maternal Designation	2	3	ND	1	1	ND	ND
Nursery Designation	2	3	ND	1	1	ND	ND
Stroke Designation	2	2	ND	ND	ND	ND	ND
Trauma Designation	IAP 4	2	ND	4	4	4	4
CT Capability	16/64	64	16	16	64	64	16
Weight limit	675 lbs	500 lbs	500 lbs	450 lbs	500 lbs	550 lbs	450 lbs
Girth						80 cm	70 cm
MRI Capability	1.5T/3T				1.5T		1.5T
Weight limit	550 lbs	500 lbs		350 lbs	350 lbs	350 lbs	500 lbs
Girth				23 in	70 cm	70 cm	70 cm
Operating Rooms Available	Yes	Yes	No	Yes	Yes	No	Yes

ND = non-designated

Heart of Texas Regional Advisory Council
Freestanding Emergency Departments

Premier ER Plus - Waco
221 S. Jack Kultgen Expressway
Waco, TX 76706
Main: (254) 537-9452
Fax: (254)
RAC POC: Crissie Richardson
Medical Director: Dr. Jason Bryant

Premier ER Plus - Woodway
9110 Jordan Lane
Waco, TX 76712
Main: (254) 399-0740
Fax: (254)
RAC POC: Crissie Richardson
Medical Director: Dr. Jon Daniell

Express ER *(not a member of the RAC)*
1411 N. Valley Mills Drive
Waco, TX 76710
Main: (254) 294-6500
Fax: (254)

System Participation

All Heart of Texas RAC General Assembly meetings are open to any interested persons. Meeting notices and reminders are emailed to the membership in advance of all meetings, and meeting notices are posted on the www.HOTRAC.org website. Minutes of all meetings are emailed along with a meeting agenda. "Active Participation" in the RAC is defined as the following:

A. EMS Providers (air and ground)

1. Level I Requirements
    - Will have representation at 75% of General Assembly Meetings.
    - Will participate in a minimum of one (1) standing committee and will have representation at 75% of that committee meetings.
    - Will submit information into the State EMS & Trauma Registry.
    - Will submit required Performance Improvement data as requested and attend any meeting when the agency has a case under review.
2. Level II Requirements
    - Will demonstrate participation in at least one HOTRAC prevention activity annually and submit documentation of such.
    - Will participate in one community disaster preparedness drill annually and provide proof of participation.

B. Hospital Members

1. Level I Requirements
    - Will have representation at 75% of General Assembly Meetings.
    - Will participate on the appropriate standing committees based on designation, in-pursuit status, or general time-sensitive patient care (i.e., trauma, stroke, cardiac, maternal, nursery, etc.). Must have 75% representation for each standing committee in which the facility is designated or in-pursuit.
    - Will have *physician representation* at 75% of Physician Advisory Committee Meetings for appropriate designations.
    - Will submit information into the State EMS & Trauma Registry.
    - Will submit required Performance Improvement data as requested and attend any meeting when the facility has a case under review.
2. Level II Requirements
    - Will demonstrate participation in at least one HOTRAC prevention activity annually and submit documentation of such.
    - Will participate in one community disaster preparedness drill annually and provide proof of participation.

C. Other Healthcare Entities

1. Level I Requirements
    - Will have representation at 75% of General Assembly Meetings.
    - Will participate on the appropriate standing committees based on designation, in-pursuit status, or general time-sensitive patient care (i.e., trauma, stroke, cardiac, maternal, nursery, etc.). Must have 75% representation for each standing committee in which the facility is designated or in-pursuit.
    - Will have *physician representation* at 75% of Physician Advisory Committee Meetings for appropriate designations/treatment capability.

- Will submit required Performance Improvement data as requested and attend any meeting when the facility has a case under review.

2. Level II Requirements
    - Will demonstrate participation in at least one HOTRAC prevention activity annually and submit documentation of such.
    - Will participate in one community disaster preparedness drill annually and provide proof of participation.

D. Other Types of Membership

1. Level I Requirements
    - Will have representation at 75% of General Assembly Meetings.
    - Will participate in a minimum of one (1) standing committee and will have representation at 75% of that committee meetings.
2. Level II Requirements
    - Will participate in at least one (1) scheduled regional preparedness activity annually and provide proof.

E. Individuals

1. Will be present for 75% of the General Assembly meetings.

F. School Districts

1. Will be present for 75% of the General Assembly meetings.
2. Will demonstrate participation in at least one HOTRAC prevention activity annually and submit documentation of such.

G. Meeting attendance may be met in person, via conference call, video conferencing or via webinar. The timeframe considered for attendance requirements will be based on a rolling 12-month period.

H. Each member entity will complete an annual Member & Needs Assessment Form.

I. Membership Dues must be paid in full annually. The dues structure will be developed by the Executive Committee and approved by the Board of Directors then presented to the General Assembly. Per DSHS Regulatory, dues may not be considered in determining active participation for licensure.

J. Exceptions to the above requirements may be considered by the Executive Committee on an individual basis. A member seeking such an exception must submit, in writing, a request for the exception and provide documentation to support the request to the Executive Director. If approved by the Executive Committee and it will be noted in the member's folder. The exception will list why it was approved, date approved, and how long the exception will be granted.

Participation from each organization is encouraged. The Bylaws are reviewed each year and revised as appropriate. Each component of the Regional Emergency Healthcare System Plan is presented, discussed, and approved by the Heart of Texas RAC General Assembly, Board of Directors, and Physicians Advisory Committee. All revisions are reviewed and approved through the same process. Once approved, complete copies of the Regional Emergency Healthcare System Plan will be made available to the Heart of Texas RAC membership via email, mail, and/or website. The most current approved plan will be posted to the RAC website.

System Access via 9-1-1

Goal

The goal for system access within the Heart of Texas Region is two-fold. First, rapid access to notification of the need for emergency healthcare at any location within the Heart of Texas 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 each Heart of Texas community. In portions of this Region, First Responder Organizations (FRO) and/or volunteer fire departments (VFD) may provide initial treatment prior to EMS arrival.

Objectives

1. To support regulatory agencies responsible for ensuring all persons located in the Heart of Texas Region will have the availability to access emergency dispatch for EMS services.
2. To ensure emergency healthcare providers have appropriate communication equipment available.
3. 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

The 9-1-1 communications system provides a dedicated phone line allowing direct routing of emergency calls through a telephone company to a Public Safety Answering Point (PSAP). Routing is based on the specific telephone exchange area rather than municipal boundaries. Enhanced 9-1-1 includes Automatic Number Identification (ANI) and/or Automatic Location Identification (ALI). Enhanced 9-1-1 also automatically routes emergency calls to a pre-selected answering point based upon the geographical location from which the call originated. Each of the Heart of Texas counties has enhanced 9-1-1 with ANI/ALI capability.

The 9-1-1 Advisory Committee of the Heart of Texas Council of Governments (HOTCOG) works with 9-1-1 staff to develop and administer the 9-1-1 program in rural counties. Representatives from each county meet on a regular basis to summarize activities in the Region, discuss system problems, plan educational activities and future projects, and work cooperatively to develop and implement the 9-1-1 Strategic Plan. In McLennan County, the McLennan County 9-1-1 District provides the same services to McLennan County.

There is free public access to 9-1-1 throughout the Heart of Texas. Public education mascot Cell Phone Sally is used to educate residents. Training sessions are provided at community health fairs, schools, auxiliaries, facilities, Sheriff's departments, and EMS providers. Public education materials are available from HOTCOG, McLennan County 9-1-1, and/or HOTRAC upon requests for events occurring in the Heart of Texas Region.

Communications

Goal

The goal for communications within the Heart of Texas is to ensure communication capability between EMS providers, medical control, receiving facilities, and other first responder entities. Rapid dispatch and notification of the need for emergency healthcare at any location within the Heart of Texas must be available to all persons in the Region.

Objectives

1. To facilitate regional communications, all EMS & first responder units as well as facility emergency personnel will have a list of the communication devices & operating frequencies of the EMS and emergency care providers operating in the Heart of Texas Region.
2. To ensure that all EMS providers, first responders, and facilities in the Heart of Texas Region have functional communications equipment 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 ensure that emergency dispatch within the Heart of Texas 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.

Discussion

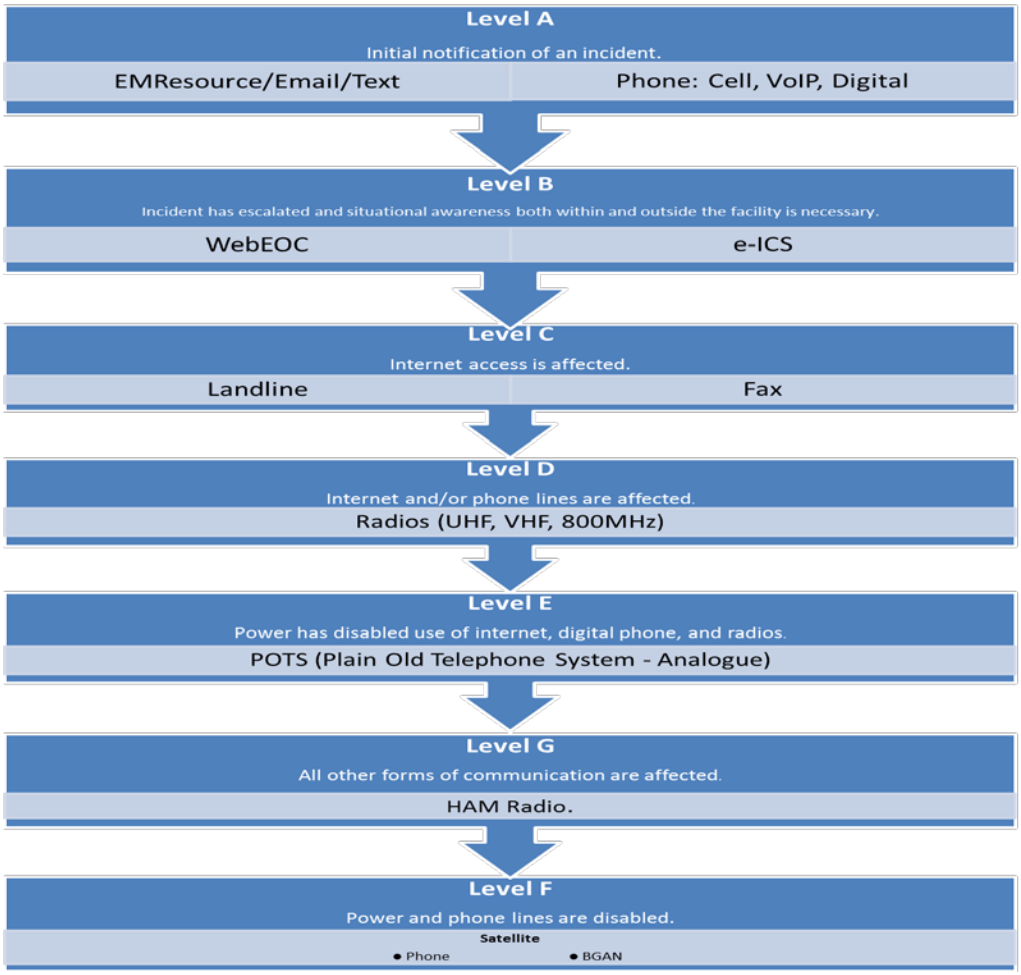
The communications network in the Heart of Texas is comprised of UHF, VHF, and 800 MHz radio devices combined with telephone links, both cellular and landline. In some instances, individual EMS providers may utilize UHF, VHF, 800 MHz, and cellular phones to ensure communications capability. The use of multiple communications systems ensures regional communications are maintained between public and private EMS providers, police, fire, and facility entities.

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

EMS Providers – Most of the EMS Providers utilize the VHF frequency while AMR-Waco in McLennan County utilizes the City of Waco 800 MHz trunked radio system.

Facilities - All RAC facilities maintain communications capability with EMS providers using UHF and VHF emergency radios, cellular phones, or standard phone lines. The facilities in Waco also can use 800 MHz. Cellular phones are the primary means of communications between EMS Providers and facilities. Heart of Texas RAC purchased with Hospital Preparedness funding a HAM radio that is programmed according to the HOTCOG Regional Communications Plan for all facilities in the Region. Each facility is required to maintain this same level of interoperability.

Regional Communications – Heart of Texas RAC is an active participant in the interoperability planning efforts being address by the HOTCOG. The HOTCOG maintains the Heart of Texas Regional Communications Plan. All health and medical radios are programmed according to that plan. Please see that specific plan for additional detailed information regarding communications in the Region.



Regional Emergency Medical Involvement

Goal

The goal for Regional Emergency Medical Involvement in the Heart of Texas Region is multifaceted.

- To ensure strong physician leadership and supervision for prehospital care providers in both on-line and off-line functions.
- To secure medical involvement in regional planning and educational program development.
- Provide for the development and implementation of regional treatment guidelines and system plan components, as well as in systems evaluation.

Objectives

1. To evaluate regional emergency healthcare from a systems perspective, under the direction of representatives of medical staff from throughout the Region.
2. To involve Heart of Texas RAC Physicians Advisory Committee in all phases and at all levels of the leadership and planning activities of regional development and sustainment.
3. To ensure appropriate medical oversight of all pre-hospital care providers through a Performance Improvement process and other administrative processes.
4. To identify and educate regional medical control resources, standardize treatment, and analyze accessibility of medical control resources.
5. To identify and educate EMS providers and sources of on-line and off-line medical control.

Discussion
The Heart of Texas Region includes both rural and suburban facilities and emergency care providers with varying levels of medical capability. All EMS medical directors are highly encouraged to participate in the Heart of Texas RAC Physicians Advisory Committee, which meets on a quarterly basis.

Physician Involvement in Regional Plan Development - The Physicians Advisory Committee meets on a quarterly basis to conduct its usual business and to review and approve regional planning components, policies, and guidelines related to medical care. EMS medical directors, trauma surgeons, cardiac physicians, stroke medical directors, and ED physicians from each Heart of Texas RAC entity should have representation on this standing committee. At this time, the perinatal physicians are invited to attend but are not required until the designation process and system initial development is completed. Any interested Heart of Texas RAC time-sensitive care physician is invited to attend these meetings.

Medical Direction of Pre-Hospital Care Providers - In accordance with DSHS guidelines, all pre-hospital care providers function under medical control. Regional EMS patient destination and bypass guidelines are distributed to all EMS providers for incorporation into their protocols. Periodic reviews and updates are completed and upon approval are distributed, as necessary.

Regional Performance Improvement - The Physicians Advisory Committee meets quarterly to conduct its usual business and to carry out regional performance improvement activities. The facility and EMS representatives meet in conjunction with the Physicians Advisory Committee to review patient care and evaluate outcomes from a systems perspective.

System Performance Improvement

Goal
The goal for Regional System Performance Improvement is to maintain a method for monitoring and evaluating system performance over time and to assess the impact of emergency healthcare system.

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 regional medical involvement of regional emergency healthcare.

Discussion
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. Traumatic 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 Physicians Advisory Committee (PAC) reviews trends of patient care; however, in certain cases, the PAC discusses more in depth those 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. RAC members may ask for a case to be reviewed by PAC as well. PAC serves as the Morbidity & Mortality Review for several of the rural facilities. In the event a case is up for review, notification will be provided as soon as notice of the review is made. This process is followed for all disciplines of the Regional Emergency Healthcare System.

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

The Physicians Advisory Committee will approve the type of data for 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 Physicians Advisory Committee will have final approve of the Performance Improvement indicators.

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 Heart of Texas RAC Performance Improvement Process will be evaluated on an annual basis in conjunction with the annual evaluation of the Heart of 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 reporting are submitted at least quarterly. Sentinel events will be used to focus attention on specific situations/occurrences of major significance to patient care outcomes. **Current Performance Improvement Forms are made available to Heart of Texas RAC membership on the HOTRAC website.**

Reporting Quarters – HOTRAC 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

HOTRAC 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 Rule (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 hospitals, 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. HOTRAC provides information, expertise, and public safety leadership in time sensitive and emergency healthcare in the 5-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, signs & symptoms, and *Saving Bodies, Minds, & Hearts Public Event*. The scope of outreach activities varies on several factors: location, time of the year, prevalence of issues, and types of deaths reviewed. Focus areas are published annually in January of each year on the Prevention Calendar. This calendar is shared with membership and on the HOTRAC website. Social media campaigns are tied directly to these focus areas.

HOTRAC provides special attention to drowning prevention and suicide prevention. The RAC in coordination with the Army Corps of Engineers developed a drowning prevention series called Forever 15. The program received national acclaim. HOTRAC serves as the Child Fatality Review Team organization for the 5-county area. This group notes that suicides continue to trend in the Region.

EMResource® Guidelines

GENERAL INFORMATION

A. Users should complete their alert and notification settings initially on receiving their login credentials. At a minimum, a user should set to receive notices for any events occurring in the Region.
B. Users should confirm that all contact data for their entity is correct monthly.

EMERGENCY DEPARTMENT STATUS

A. Emergency Departments (ED) shall update their status any time they need to provide situational awareness to EMS Providers and other facilities. EDs will typically remain on **OPEN** status.
B. Once an ED goes on **SATURATION**, they must update their status every 60 minutes, or more often if possible, until they are back to normal operations. The HOTRAC Region uses the NEDOCs scoring to determine this status.
C. An ED may go on **TRAUMA DIVERT** if they are unable to stabilize or treat a trauma patient. This status may NOT be used by the Lead Trauma Center. The RAC staff will contact a facility that goes on DIVERT to confirm it meets criterion.
D. If an ED is involved in a disaster response effort, they should change their status to **DISASTER**. Once on **DISASTER**, the ED must update its status every 4 hours or more often if situation determines.
E. An ED should only go on **CLOSED** status if they are completely closed to EMS and POV traffic. A **CLOSED** ED means that something has caused the ED to not be able to see any patients for an extended period (more than one hour). The Department of State Health Services (DSHS) must be notified if a facility closes.

GENERAL STATUS

A. General Status refers to those services that are tracked individually on the EMResource® website. The statuses follow, but may be changed depending on regional needs:
    - Ortho Surgery
    - Neurosurgery
    - Cardiac
    - Stroke
    - Neuro Interventional
    - Nursery/NICU
    - ICU
    - SANE (sexual assault nurse examiner)
B. These General Statuses are to be updated as soon as they are no longer available and should be updated as soon as the service is available again.
    Y = service is available
    N = service is usually available but not currently
    - = service is not provided at all.
C. A comment should be noted if the length of down time is known in advance (i.e., STEMI is not going to be available from 12p-7p on 1/1/2001)

FACILITY STATUS

A. Facilities shall update their demographic information (contact information, licensed beds, isolation capacity, etc.) on the EMResource® website at least quarterly. A notice reminder will be sent out via the EMResource® website monthly.

B. Between 0700 and 0800 each morning (once every 24 hours), each facility is required to update its status via the EMResource® website. Updates shall be completed as stated throughout this document.
C. Facility statuses are intended to provide information to transferring facilities. These statuses should not be used by EMS to determine patient destination.
    1. Status Definitions
        a. ***OPEN*** – colored green
            1. Accepting all patient traffic
            2. All resources available
            3. Status will be updated every twenty-four (24) hours.
        b. ***RESOURCE ALERT*** – colored yellow (resource limitations)
            1. When a facility's resources are limited or unavailable
            2. Examples may include but not limited to:
                - Access Limitations – access to the facility has been limited or re-directed.
                - Equipment Diversion – specific piece of equipment is not available (i.e., CT, MRI, etc.) Comment must be provided.
                - Internal Disaster – situation in a facility that has caused their disaster plan to be activated. Comment must be provided.
                - Other – status when others do not apply. Comment must be entered.
            3. When "Resource Alert" is chosen for the facility status on EMResource® website, the facility MUST choose one of the statuses and list the specific resource that is limited or unavailable.
            4. Status will be updated every four (4) hours.
        c. ***CLOSED*** (colored red)
            1. Facility Closures occur when a facility must close due to an environmental emergency, mechanical failure, or other type of event that would prevent the facility from receiving patients of any type.
            2. During this time, no patients will be accepted at the closed facility.
            3. A closure has no expiration and does not fall under the guidelines of a "resource alert" facility.
            4. A reason for closure MUST be provided on the website.
            5. DSHS must be notified of a closure.
            6. RAC Staff will stay in contact with facility to ensure the website is as accurate as possible.
            7. When the facility is ready to accept patients, the facility will make the change on the website.
D. The standard time for a status is four (4) hours. If a facility does not update its status at the 4-hour mark, the Regional Administrator may change status to OPEN and/or contact facility.

EMS (air & ground) STATUS

A. EMS Providers shall update their demographic information (contact information, number of trucks, etc.) on the EMResource® website at least quarterly. A notice reminder will be sent out via the EMResource® website.
B. Each EMS Provider is required to update its status via the EMResource® website. Updates shall be completed as stated throughout this document. The goal for EMS Providers is to have each unit updated in real-time. The Region understands that this effort is difficult unless an EMS Provider can connect to their CAD system.
C. Status Definitions
    1. Ground EMS Providers
        - Available – the unit is available and ready.
        - CLOSED – EMS Service is no longer in business.
        - On a Call – unit is unavailable due to a call.
        - Out of Service – unit will not be available for a period. Comment must be provided.

- RESERVE – unit is normally in reserve.
- Unavailable – unit is temporary unavailable (i.e., re-stock, etc.). Comment must be provided.

2. Air Medical Providers
   - Available – aircraft available for transport.
   - Grounded – unable to utilize aircraft.
   - Unavailable – aircraft is unavailable. Comment must be provided.
   - Weather – aircraft unable to fly due to weather conditions.

ALERTS

A. MULTI-PATIENT INCIDENT (MPI) and MASS CASUALTY INCIDENT (MCI) ALERTS – In the event that an agency calls any HOTRAC facility requesting to initiate MPI or MCI alert, that facility's EMResource® Coordinator will setup the MPI or MCI Alert as soon as possible or contact RAC Staff to begin the event. This will be critical information that puts different "systems" within the HOTRAC Region into action.

--A MPI Alert can be activated by the Incident Commander, primary first responder agency, or the initial EMS provider on-scene. MPI is typically 2-5 patients or exceeds the local responder resources.

--A ***MCI ALERT*** should only be activated by *a senior experienced paramedic*, *a Trauma Center,* and/or *HOTRAC.* MCI is typically more than 5 red patients or exceeds the local responder resources.

If someone other than those listed above request a facility to initiate MPI or MCI Alert, and if it is questionable as to their authority to make the request, the facility will alert and advise the Emergency Department Physician of their facility to confirm and initiate the alert.

1. When a request is received for MPI or MCI Alert the following information will need to be provided:
   - Anticipated length of the alert?
   - What the alert is for?
   - A brief description of the alert to be issued.
   - Which facilities will be impacted initially?
   - Which EMS providers will be impacted initially?
2. The following people should be notified by EMResource® any time **MCI/MPI ALERT** is activated. This alert should be selected in preferences for the following people as well as anyone else the entity deems appropriate if notifications are set correctly.
   - Each facility's Trauma Coordinator
   - Each facility's Emergency Department Director/Manager and/or Emergency Department Medical Director (to be determined by facility)
   - Hillcrest's Trauma Medical Director
   - RAC Executive Director
   - RAC Chair
3. It is the responsibility of the initiating facility to update the EMResource® website every fifteen (15) minutes during the MPI or MCI Alert. This update can be changed as needed pending the actual event by contacting the System Administrator.
4. RAC Staff may input the above information into the EMResource® website MPI or MCI Alert screen, if needed, depending on the size of the incident.
5. When the incident ends, it is the responsibility of the initiating facility to close the alert on the EMResource® website.

DISASTER ALERT & STATUS

Disaster Alerts are used to notify all EMResource® members about potential problems, such as flood or tornado warnings, or other issues that will be impacting the TSA M. If two or more hospitals are affected, then HOTRAC will stand up its Disaster Medical Coordination Center in support of the event/disaster.

When requesting a Disaster Alert the following information is required:

- How long the alert will last?
- What the alert is for?
- A brief description of the alert to be broadcast.

Examples of Systems Alerts include:

- **Bed Capacity** – query for bed capacity (i.e., med/surg, ICU, ED, Isolation, etc.).
- **CBRNE/Decon Response** – query for MCI red, yellow, & green capacity as well as decontamination capabilities.
- **Generic Resource Query** – query for a specific resource on hand (i.e., pharmaceuticals, PPE, etc.).
- **HHS Critical Infrastructure Query** – query for facility needs (i.e., additional staff, PPE, security, etc.).
- **Public Health Alert** – used to distribute Public Health specific information to the Region.
- **Regional Announcement** – used to broadcast or distribute information to EMResource users.
- **Storm Response** - query for MCI red, yellow, & green capacity as well as storm-related patients seen.

A. Bed Capacity

1. Definitions

These bed types must be reported as monitored (telemetry) or non-monitored (no telemetry)

a. med/surg beds – medical/surgical inpatient beds [adult and pediatric].
b. ICU beds – adult intensive care beds to include medical, surgical, and coronary.
c. NICU beds – beds in Neonatal Intensive Care Unit.
d. PICU beds – beds in Pediatric Intensive Care Unit.
e. PEDI beds – pediatric beds.

These bed types must be reported as male or female.

f. Pediatric Psych beds – psych beds for pediatrics (1-12 years of age).
g. Adolescent Psych beds – psych beds for adolescents (13-17 years of age).
h. Adult Psych beds – psych beds for adults (over 18 years of age).
i. Geriatric Psych beds – psych beds for geriatrics (over 55 years of age).
j. ICP beds – intensive care psych beds.

k. ED beds – beds in Emergency Department.
l. OR – operating room beds to include day surgery and recovery.
m. Vents – ventilators (portable or fixed) (pediatric or adult) currently at facility.

*Depending on the situation, other items may be requested to be reported.

2. Bed Capacity inquiry will be issued by the System Administrator or designee. Each facility will receive a notification for the inquiry. Each facility has one (1) hour to enter the available bed information into EMResource®.

B. Public Health Alert
   1. A Public Health Alert may be issued by the System Administrator or Public Health.
   2. A Public Health Alert may be issued whenever a public health message needs to be received immediately by the Region.
   3. A Public Health Alert may override all notification preferences to force message out to all users.

TROUBLESHOOTING

A. **Internet problem v. EMResource® problem** - To determine if a problem with the EMResource® website is the website and not an internet connection failure, please following the steps listed below:
   1. Reboot computer
   2. Contact facility's IS or IT Department
   3. Contact HOTRAC's System Administrator
   4. System Administrator will contact EMResource® Technical Support.

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 M, 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 (eye-to-eye) to balloon inflation at a PCI facility*.**

Pre-hospital STEMI Triage

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
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 EKG or 12-lead if available.

System Triage

- If a provider is unable to complete an EKG or 12-lead, suspected cardiac patient should be taken to the nearest acute care facility within Heart of Texas.
- If a provider suspects a STEMI (confirmed by 12-lead), the patient should be taken directly to a PCI Facility within Heart of 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 "Code STEMI".
- The EMS Provider should remember to report their interpretation of the 12-lead along with the term "Code STEMI", to include which leads are elevated.
- All EMS Providers with 12-lead capability and transmission should send the initial ECG to the PCI Facility.

EMS Provider	Cardiac Monitor	Transmission Method
AMR – Waco/Falls	Life-Pak 15	LifeNet
Crawford EMS	None (BLS service)	N/A
CareFlite (ground)	Zoll	Fax/email
Coryell Health EMS	Zoll	Fax/email
Hillsboro Fire & Rescue	Life-Pak 15	LifeNet
LMC EMS	Life-Pak 15	LifeNet
Mexia Fire/EMS	Phillips MRx	Phillips server at HOTRAC
North Bosque EMS	Phillips MRx	Phillips server at HOTRAC
West EMS	Zoll	Taking picture and sending to ED Physician

Whitney EMS	Zoll & Phillips	Taking picture and sending to ED Physician

- 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 appropriate facility is more than 20 minutes, consider helicopter activation.

Helicopter Activation

Goal

Heart of Texas regional air transport resources will be appropriately utilized 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:
   - Pulmonary edema
   - Altered Mental Status
   - Hypotension

     OR
   - A PCI Facility is more than 20 minutes away by ground.

   Should there be any question whether to activate 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 ECG to the PCI Facility.

EMS Provider	Cardiac Monitor	Transmission Method
Air Evac LifeTeam	Zoll X series	Fax
CareFlite (Air)	Zoll	Fax/email
PHI Air Medical	Zoll	Fax/email

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

Facility Diversion

Goal

The Heart of Texas facilities will communicate "facility diversion" status promptly and clearly to regional EMS and other facilities through EMResource to ensure that STEMI patients are transported to the nearest appropriate facility.

System Objectives

1. To ensure that STEMI patients will be transported to the nearest appropriate Heart of 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 cardiac care problems associated with facility diversion will be assessed through the Physicians Advisory Committee Performance Improvement process.
4. All facilities and pre-hospital providers will use EMResource® to notify and track diversion status.

Facility Bypass

Goal

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

Decision Criteria

Regional transport treatment guidelines ensure that patients who meet the triage criteria for activation of the Heart of 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 (> 20 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 Heart of Texas is to ensure that all regional facilities use standard definitions to classify STEMI patients 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 Heart of 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 Heart of Texas Region.
- If a PCI Facility receives and confirms a 12-lead, the PCI Facility should activate the facility's 'Code STEMI' protocol. The 'Code STEMI' protocol should include contact of the Cath Team and cardiologist on call as needed. The goal is to move a STEMI patient from the EMS unit directly to Cath Lab 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 90 minutes, the non-PCI facility should consider fibrinolytic therapy.
- See algorithm below from the 2013 ACCF/AHA STEMI Guidelines.

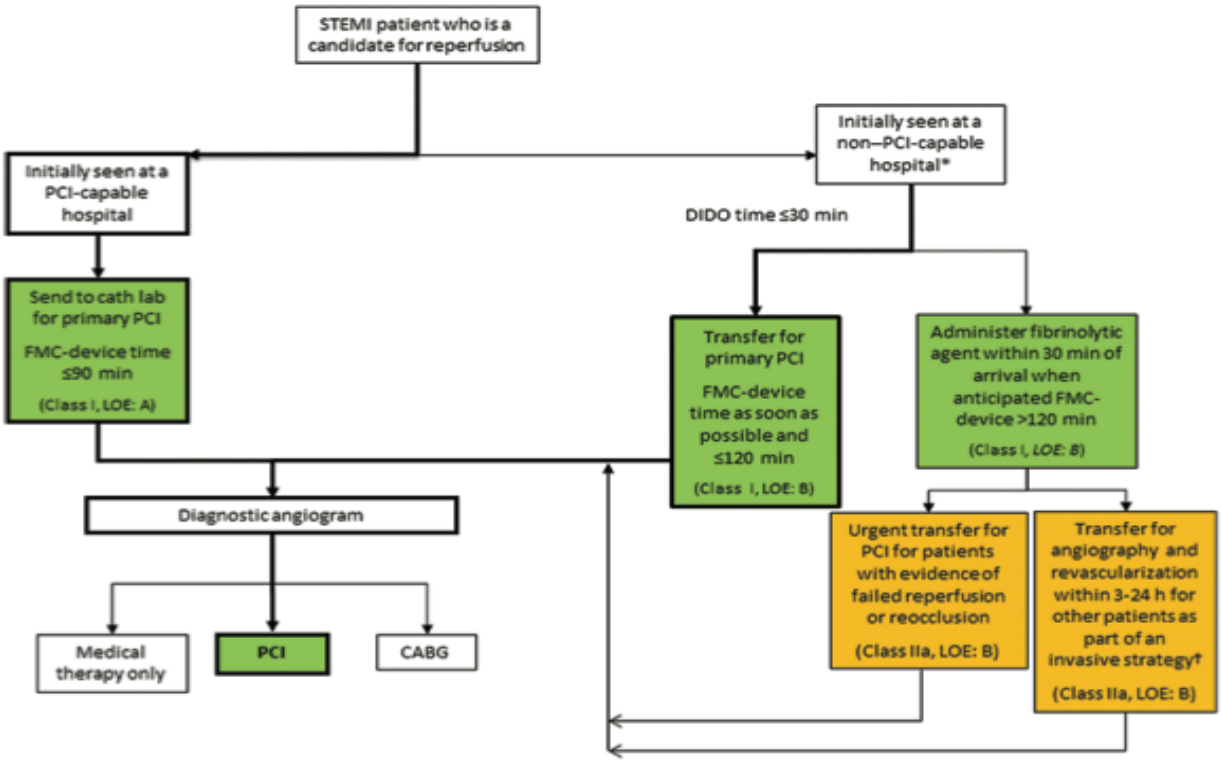


Figure 2. Reperfusion therapy for patients with STEMI. The bold arrows and boxes are the preferred strategies. Performance of PCI is dictated by an anatomically appropriate culprit stenosis. *Patients with cardiogenic shock or severe heart failure initially seen at a non–PCI-capable hospital should be 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 Heart of 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 Heart of Texas criteria.
2. To identify cardiac treatment and specialty facilities within and adjacent to the Heart of Texas.
3. To establish treatment and stabilization criteria and time guidelines for the Heart of Texas facilities.

Discussion

The level of cardiac care resources required for STEMI patients is outlined in the Heart of Texas facility triage criteria and pre-hospital triage criteria. When a suspected STEMI patient is identified activation of a 'Code STEMI' should be initiated. A transferring facility should state that the patient is a 'Code STEMI' when calling EMS Providers and the accepting PCI Facility within Heart of Texas.

Identification of STEMI Patients & STEMI Transfers - STEMI patients and their treatment requirements for optimal care are identified in the Heart of Texas facility triage criteria and pre-hospital triage criteria. Written transfer agreements are available between all Heart of 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 Heart of Texas non-PCI facilities are expected to transfer myocardial infarction patients immediately once identified. To make this process more streamlined, these facilities may call the emergency department at either Heart of Texas PCI Facility for immediate acceptance. This process may be used for patients seen in the non-PCI facility's emergency department or admitted as an observation patient/in-patient.

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 Heart of Texas should be expedited. The Heart of Texas non-PCI facilities may also choose to transfer patients with special needs directly to these facilities, bypassing the Heart of Texas facilities when appropriate.

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

To expedite transfers, the referring facility should utilize 'Code STEMI' language with the transporting EMS Provider and the PCI Facility.

Perinatal System

Definition

Perinatal Patient is a pregnant female at greater than 20 weeks gestation through 6 weeks post-partum.

Pediatric Patient is a patient less than 18 years old.

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 Heart of Texas facility.

Prehospital Decision Criteria

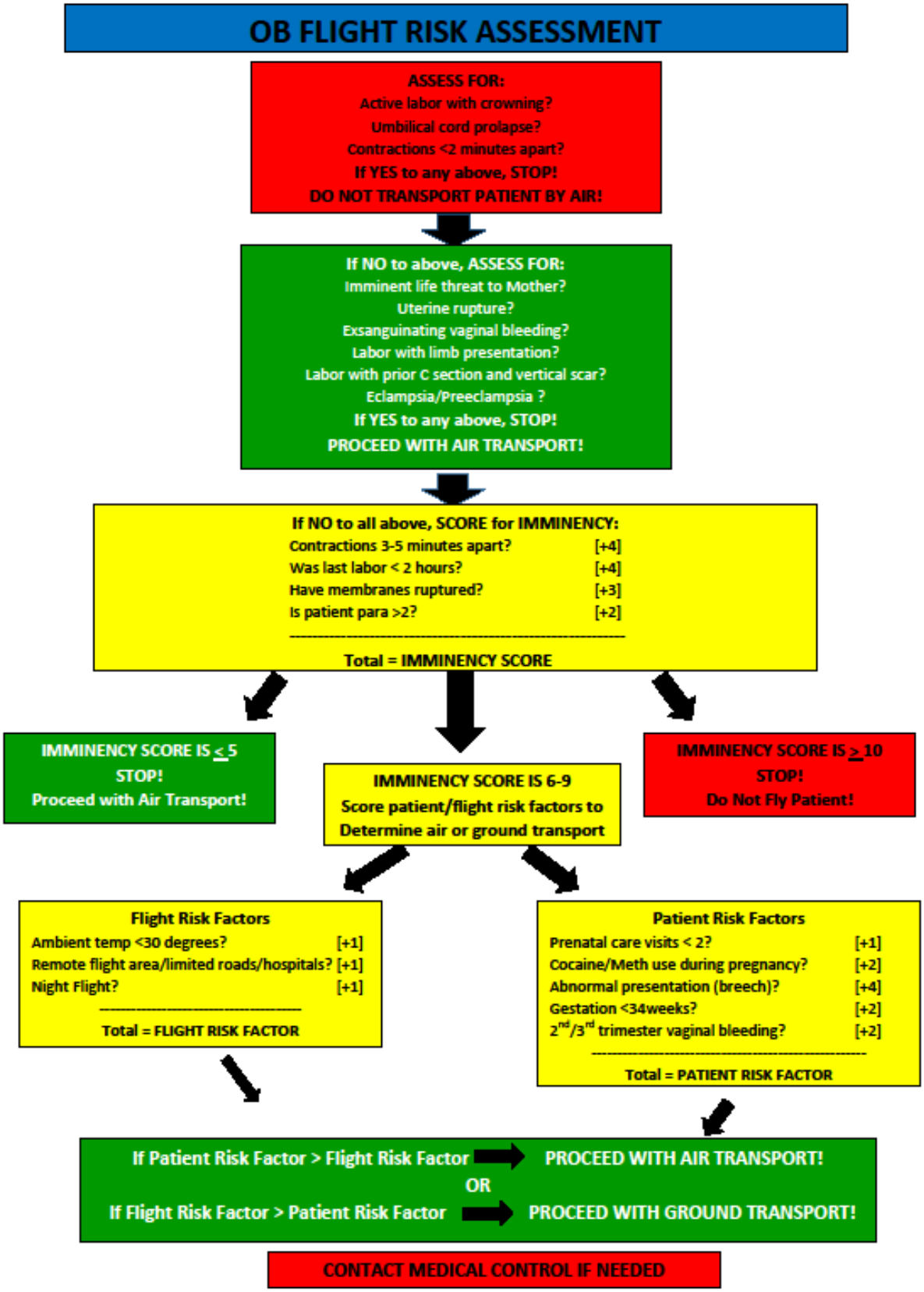
Goal
Perinatal patients will be safely and rapidly transported to the nearest appropriate facility within the Heart of Texas RAC.

System Objectives
1. To ensure that patients will be transported to the nearest appropriate Heart of Texas facility.
2. To develop system treatment guidelines for facility destination.
3. To ensure that mothers and babies are transported in the same ambulance unless they BOTH require high acuity care.

If assessment determines any of the following to be true:
- ✓ Active labor with crowning
- ✓ Umbilical cord prolapses.
- ✓ Contractions less than two minutes apart

- then, air medical may not be able to assist. In consultation with transferring facility, consider not transporting until confirmation with online medical control and receiving facility.
- and a scene call, consider consultation with online medical control and/or closest designated maternal/neonatal facility.

If assessment determines any of the following items are true, then air medical should be considered.
- ✓ Imminent life threat to mother
- ✓ Uterine rupture
- ✓ Exsanguinating vaginal bleeding
- ✓ Labor with limb presentation
- ✓ Labor with prior C-section and vertical scar
- ✓ Eclampsia/preeclampsia


OB FLIGHT RISK ASSESSMENT
ASSESS FOR:
Active labor with crowning?
Umbilical cord prolapse?
Contractions <2 minutes apart?
If YES to any above, STOP!
DO NOT TRANSPORT PATIENT BY AIR!
If NO to above, ASSESS FOR:
Imminent life threat to Mother?
Uterine rupture?
Exsanguinating vaginal bleeding?
Labor with limb presentation?
Labor with prior C section and vertical scar?
Eclampsia/Preeclampsia ?
If YES to any above, STOP!
PROCEED WITH AIR TRANSPORT!
If NO to all above, SCORE for IMMINENCY:
Contractions 3-5 minutes apart? [+4]
Was last labor < 2 hours? [+4]
Have membranes ruptured? [+3]
Is patient para >2? [+2]
Total = IMMINENCY SCORE
IMMINENCY SCORE IS ≤ 5
STOP!
Proceed with Air Transport!
IMMINENCY SCORE IS 6-9
Score patient/flight risk factors to
Determine air or ground transport
IMMINENCY SCORE IS ≥ 10
STOP!
Do Not Fly Patient!
Flight Risk Factors
Ambient temp <30 degrees? [+1]
Remote flight area/limited roads/hospitals? [+1]
Night Flight? [+1]
Total = FLIGHT RISK FACTOR
Patient Risk Factors
Prenatal care visits < 2? [+1]
Cocaine/Meth use during pregnancy? [+2]
Abnormal presentation (breech)? [+4]
Gestation <34weeks? [+2]
2nd/3rd trimester vaginal bleeding? [+2]
Total = PATIENT RISK FACTOR
If Patient Risk Factor > Flight Risk Factor
PROCEED WITH AIR TRANSPORT!
OR
If Flight Risk Factor > Patient Risk Factor
PROCEED WITH GROUND TRANSPORT!
CONTACT MEDICAL CONTROL IF NEEDED

Facility Diversion

Goal

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

System Objectives

1. To ensure that patients will be transported to the nearest appropriate Heart of 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 Physicians Advisory Committee Performance Improvement process.
4. All facilities and pre-hospital providers will use EMResource® to notify and track diversion status.

Facility Bypass

Goal

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

Decision Criteria

Regional transport treatment guidelines ensure that patients who meet the triage criteria for activation of the Heart of 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:

5. If unable to establish and/or maintain an adequate airway, the patient should be taken to the nearest acute care facility for stabilization.
6. 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.
7. 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.
8. Additionally, should the patient or their physician choose to bypass a facility, their request should be followed when possible.

Mothers less than 32 weeks should be taken directly to the closest Level III or IV maternal/neonatal facility whenever possible.

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

Facility Minimum Equipment List

The Heart of Texas RAC Women & Children Committee developed this minimum equipment list based on the Neonatal Resuscitation Program (NRP) and the 2009 joint policy statement "Guidelines for Care of Children in the Emergency Department".

1. Perinatal/pediatric equipment, supplies, and medications are appropriate for children of all ages and sizes (see list below), and are easily accessible, clearly labeled, and logically organized.
2. ED staff is educated on the location of all items.
3. Daily method in place to verify the proper location and function of equipment and supplies.
4. Medication chart, length-based tape, medical software, or other systems is readily available to ensure proper sizing of resuscitation equipment and proper dosing of medications.
5. Subject Matter Experts Call List for expectant mothers, neonatal, infant, child specialists unavailable at facility.
6. Transfer agreements for critical patients to higher level of perinatal/pediatric care.

- **General Equipment/Supplies**
  - Preheated warmer for newborn.
  - Warm towels or blankets
  - IV blood/fluid warmer
  - Restraint device
  - Scale to weigh in kilograms (not pounds)
  - Stethoscope
  - Broselow tape

- **Respiratory Equipment/Supplies**
  - 5F and 8F feeding tube and 20-mL syringe.
  - OG tube 6.0 FR and 8.0 FR
  - Ability to give free flow Oxygen.
  - Nasal cannulas – infant & child
  - Target oxygen saturation table (should match the type of pulse ox facility is using)
  - Oxygen flowmeter set to 10 L/min.
  - Oxygen blender set to 21% (21%-30% if <35 weeks' gestation)
  - Laryngoscope handle with size-00 blade; sizes 0, 1, 2, 3 straight blades; sizes 2, 3 curved blades
  - Lubricated intubating stylet - pediatric.
  - ET tubes sizes 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0
  - Measuring tape and/or ET tube insertion depth table
  - Waterproof tape or tube-securing device
  - Nasopharyngeal airways – infant & child
  - Oropharyngeal airways – sizes 0, 1, 2, 3, 4, 5
  - Laryngeal mask (size 1, 1.5, 2, 2.5, 3, 4, 5) and 5-mL syringe
  - Magill forceps – pediatric
  - Positive pressure ventilation (PPV) device – Ambu bag sizes for neonate, infant, child, and PALS requirements)
  - Term- and Preterm-sized masks – neonatal, infant, child
  - Bulb syringe
  - 8FR, 10F, and 12F suction catheter to wall suction, set at 80 to 100 mm Hg (mucus trap w/vacuum, beaker, & fitter)

- Yank Auer suction
- Meconium aspirator
- Tracheostomy tubes – 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5

- **Monitoring Equipment/Supplies**
  - Doppler ultrasound
  - ECG monitor leads for neonate, infant, and pediatric
  - Hypothermia thermometer
  - Temperature sensor and sensor cover for prolonged resuscitation.
  - Plastic bag or plastic wrap (<32 weeks' gestation)
  - Thermal mattress (<32 weeks' gestation)
  - Pulse Ox with sensor and cover for neonate, infant, and child
  - CO2 detector (should match the type of pulse ox)
  - Blood pressure cuffs
    - √ Neonatal
    - √ Infant
    - √ Child

- **Vascular Access Equipment/Supplies**
  - Arm Boards – infant, child
  - Catheter-over-the-needle device – 14, 16, 18, 20, 22, 24 gauge
  - Pediatric I/O device & needles
  - Central Venous catheters (4.0F, 5.0F, 6.0F, 7.0F – any two)
  - Supplies for placing emergency umbilical venous catheter (3.5F & 5.0F) and administering medications.
  - IV solution: Normal saline, Dextrose 5% in saline; Dextrose 10% in water

- **Specialized Equipment/Supplies**
  - supplies/kit for patients with difficult airway (supraglottic airways of all sizes, laryngeal mask airway, needle cricothyrotomy supplies, surgical cricothyrotomy kit)
  - tube thoracostomy tray chest tubes: infant: 10-12F; child: 16-24 F
  - newborn delivery kit, including equipment for resuscitation of an infant (umbilical clamp, scissors, bulb syringe, and towel)
  - urinary catheterization kits and urinary (indwelling) catheters (6F–22F)

- **Access to Medications**
  - 1:10,000 (0.1 mg/mL) epi
  - Atropine
  - Adenosine
  - amiodarone
  - antiemetic agents
  - calcium chloride
  - epinephrine
  - lidocaine
  - magnesium sulfate
    naloxone hydrochloride
  - procainamide
  - sodium bicarbonate (4.2%, 8.4%)
  - topical, oral, and parenteral analgesics
  - antimicrobial agents (parenteral and oral)
  - anticonvulsant medications
  - antidotes (common antidotes should be accessible to the ED)
  - antipyretic drugs
  - bronchodilators
  - corticosteroids
  - inotropic agents
  - neuromuscular blockers
  - sedatives
  - vaccines

- vasopressor agents

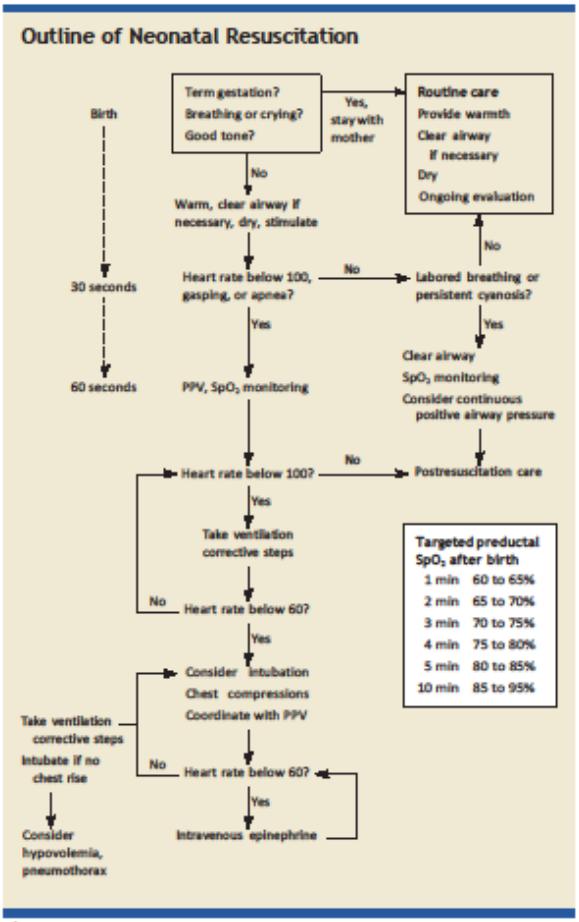


Figure 1. Algorithm outlining neonatal resuscitation. (PPV = positive pressure ventilation; SpO_2 = oxygen saturation as measured by pulse oximetry.)

Reprinted with permission from Kattwinkel J, Perlman JM, Aziz K, et al. Part 15: Neonatal resuscitation: 2010 American Heart Association guidelines for cardiopulmonary resuscitation and emergency cardiovascular care. Circulation. 2010;122(18 suppl 3):S910. http://circ.ahajournals.org/cgi/content/full/122/18_suppl_3/S909. All requests to use this information must come through the American Heart Association.

Facility Triage Criteria/Interfacility Transfer

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 IV designated facilities that may be utilized outside the Heart of Texas (from DSHS website as of 12/8/2020):

MATERNAL

- Ascension Seton Medical Center – PCR O
- Baylor Scott & White – Temple – PCR L
- Baylor University Medical Center – PCR E
- Harris Health System Ben Taub Hospital –PCR Q
- Harris Methodist Fort Worth - TSA E
- Memorial Herrmann – The Medical Center – PCR Q
- Methodist Hospital – PCR P
- North Austin Medical Center – PCR O
- Parkland Hospital – PCR E
- Texas Children's Hospital – PCR Q
- University Hospital – PCR P

NEONATAL

- BSW - McLane Children's Medical Center – PCR L
- Children's Hospital of San Antonio – PCR P
- Children's Medical Center of Dallas – PCR E
- Cook Children's Medical Center – PCR E
- Covenant Children's Hospital – PCR B
- Dell Children's Medical Center – PCR O
- Driscoll Children's Hospital – PCR U
- El Paso Children's Hospital – PCR I
- Medical City Dallas Hospital – PCR E
- Memorial Hermann – Texas Medical Center – PCR Q
- Methodist Hospital – PCR P
- North Central Baptist Hospital – PCR P
- St. David's Medical Center – PCR O
- St. Luke's Baptist Hospital – PCR P
- Texas Children's Hospital – PCR Q
- Texas Health Presbyterian Hospital Plano – PCR E
- The Hospitals of Providence Memorial Campus – PCR I
- The Women's Hospital of Texas - PCR Q
- University Hospital – PCR P
- University Medical Center – PCR B
- University of Texas Medical Branch – PCR R

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

Neonatal Conditions

- Need for antenatal fetal evaluation when there is question about fetal condition or well-being.
- Intrauterine growth restriction, severe with oligohydramnios
- 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 another organ involvement
- Drug withdrawal

Stroke System

The Heart of Texas RAC Region has established a 'Code Stroke' process for suspected stroke patients to received definitive care as quickly as possible. The use of this term notifies EMS Providers, air medical providers, and healthcare facilities to initiate their internal 'Code Stroke' protocol.

- **Level A Stroke Patients – "CODE STROKE" – last known well of less than 4.5 hours. Closest alteplase capable facility.**

- **Level B Stroke Patients – last known well of 4.5 to 24 hours. Closest Primary Stroke Center.**

- **Level C Stroke Patients – last known well over 24 hours. Closest facility with stroke rehabilitation capabilities.**

Pre-hospital Triage

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

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

- Unless immediate stabilization (ABC's, cardiac arrest, etc.) is required, patients with a last known well of 4.5 hours or less will be taken to the closest Certified Primary Stroke Center within the Heart of Texas Region for treatment and evaluation for interventional care. If ground transport time to Certified Primary Stroke Center is greater than 30 minutes, **consider calling for the helicopter transport to meet you at the closest agreed upon landing zone**.
- Patients with last known well of less than 4.5 hours are considered 'Code Stroke'. The term 'Code Stroke' should be used by EMS Providers when calling for Helicopter activation or a Certified Primary Stroke Center.
- Patients with a last known well of greater than 4-24 hours and a positive large vessel occlusion (LVO) scale should be taken to the closest thrombectomy capable Stroke Center for treatment.
- Patients with a last known well of greater than 4-24 hours and a negative large vessel occlusion (LVO) scale should be taken to the closest Primary Stroke Center for treatment.
- Patients with a last known well of greater than 24 hours may be taken to the closest acute care facility for treatment.

Helicopter Activation

Goal
The Heart of Texas regional air transport resources will be appropriately utilized to reduce delays in providing optimal stroke care.

Decision Criteria
- Helicopter activation/scene response should be considered when it can reduce transportation time for patients with last known well less than 4.5 hours. Should there be any question whether to activate the Heart of Texas regional air transport resources, on-line medical control should be consulted for the final decision.
- Patients transported via helicopter should be taken to the nearest Certified Primary Stroke Center preferably within the Heart of Texas if last known well is less than 4.5 hours.
- Patients transported via helicopter should be taken to the nearest Certified Primary Stroke Center preferably within the Heart of Texas if last known well is 4-24 hours and the large vessel occlusion (LVO) is negative.
- Patients transported via helicopter should be taken to the nearest thrombectomy capable Stroke Center if last known well is 4-24 hours and the large vessel occlusion (LVO) is positive.
- The closest available helicopter should be utilized to reduce transport time to a Certified Stroke Center.

Facility Diversion

Goal
The Heart of Texas stroke facilities will communicate "facility diversion" status promptly and clearly to regional EMS and other facilities through EMResource® to ensure that stroke patients are transported to the nearest appropriate stroke facility.

System Objectives
1. To ensure that stroke patients will be transported to the nearest appropriate designated Stroke Center.
2. To develop system protocols for regional Primary Stroke Center status (see EMResource® guidelines and protocols):
    - Situations which would require the facility to go on diversion.
    - Notification/activation of facility diversion status
    - Procedure for termination of diversion status
3. Regional stroke care issues associated with facility diversion will be assessed through the Physicians Advisory Committee PI process.
4. All facilities and pre-hospital providers will use EMResource® to notify and track diversion status.

Facility Bypass

Goal
Suspected stroke patients will be safely and rapidly transported to the nearest appropriate stroke facility within the Heart of Texas.

Decision Criteria

Regional transport protocols ensure that patients who meet the triage criteria for activation of "Code Stroke" will be transported directly to the nearest appropriate stroke 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. In Heart of Texas RAC, a **non-designated facility** may be appropriate if the last known well is less than 4.5 hours and there is a qualified physician available at the facility's Emergency Department capable of delivering definitive care (administration of alteplase).
3. If last known well is 4-24 hours and the large vessel occlusion (LVO) scale is negative, the patient should be taken to a **Primary Stroke Center.**
4. If last known well is 4-24 hours and the large vessel occlusion (LVO) scale is positive, the patient should be taken to a thrombectomy capable Stroke Center.
5. If last known well is greater than 24 hours, the patient may be taken to the closest acute care facility.
6. Medical Control may wish to order bypass in any of the above situations as appropriate, such as when a facility is unable to meet facility resource criteria or when there are patients in need of specialty care.
7. The Heart of Texas Region can provide interventional capability at one of its Certified Primary Stroke Centers – Providence Health Center. Their capability is tracked on EMResource®.
8. If interventional treatment is indicated and is NOT available within TSA M, consideration for transport/transfer to a Certified Comprehensive Stroke Center is expected.

   Below are lists of possible Comprehensive Stroke Center that may be utilized outside the Heart of Texas (list from DSHS website as of 11/25/2020):

   - Baylor Scott & White – Temple – TSA L
   - Ascension Seton Medical Center – TSA O
   - Baylor Scott & White – Plano – TSA E
   - Baylor University Medical Center – TSA E
   - Dell Seton Medical Center at UT – TSA O
   - John Peter Smith Hospital – TSA E
   - Medical City Dallas Hospital – TSA E
   - Medical City Ft Worth – TSA E
   - Medical City Plano – TSA E
   - Methodist Dallas Medical Center – TSA E
   - Parkland Memorial Hospital – TSA E
   - St. David's Medical Center – TSA O
   - Texas Health Harris Methodist Hospital Ft Worth – TSA E
   - Texas Health Presbyterian Hospital Dallas – TSA E
   - Texas Health Presbyterian Hospital Plano – TSA E
   - University of Texas Southwestern Medical Center at Dallas – TSA E

9. The level of stroke care resources required for stroke patients is outlined in the Heart of Texas facility triage criteria and pre-hospital triage criteria. When a suspected stroke patient is identified activation of a 'Code Stroke' shall be initiated. A transferring facility shall state that the patient is a "Code Stroke" when calling EMS and the accepting Certified Primary Stroke Center.

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 the Heart of Texas 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 Heart of 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 stroke patient classification definitions.

Discussion

- Unless immediate stabilization (ABC's, cardiac arrest, etc.) is required, a **non-designated acute care facility** may be appropriate if the last known well is less than 4.5 hours and there is a qualified physician available at the facility's Emergency Department capable of delivering definitive care (administration of alteplase); otherwise, the patient should be transferred to a Primary Stroke Center immediately.
- If last known well is 4-24 hours and the large vessel occlusion (LVO) scale is negative, the patient should be transferred to a **Primary Stroke Center.**
- If last known well is 4-24 hours and the large vessel occlusion (LVO) scale is positive, the patient should be transferred to a thrombectomy capable Stroke Center.
- If last known well is greater than 24 hours, the patient may be treated at the non-designated acute care facility.
- Medical Control may wish to order bypass in any of the above situations as appropriate, such as when a facility is unable to meet facility resource criteria or when there are patients in need of specialty care.

***NOTE: At this time, TSA M does not have any designated Level III Support Stroke Centers.*

Inter-Facility Transfers

Goal

The goal for establishing and implementing inter-facility transfer criteria in TSA M is to ensure that those stroke patients requiring additional or specialized care and treatment beyond a facility's capability are identified and transferred to a Primary Stroke Center as soon as possible.

Objectives

1. To ensure that all regional facilities make transfer decisions based on standard definitions which classify stroke patients according to the Heart of Texas facility triage criteria.
2. To identify stroke treatment and specialty facilities within and adjacent to the Heart of Texas.
3. To establish treatment and stabilization criteria and time guidelines for the Heart of Texas patient care facilities.

Discussion

The level of stroke care resources required for acute stroke patients is outlined in the Heart of Texas facility triage criteria and pre-hospital triage criteria. When a suspected acute stroke patient is identified activation of a 'Code Stroke' shall be initiated. A transferring facility shall state that the patient is a "Code Stroke" when calling EMS and the accepting Primary Stroke Center. The time guideline for suspected acute stroke patient transfers in the Heart of Texas is 4.5 hours of last known well. These criteria (see attached Regional Stroke Form) are monitored through the regional Performance Improvement program.

Identification of Stroke Patients & Stroke Transfers - Stroke patients and their treatment requirements for optimal care are identified in the Heart of Texas facility triage criteria and pre-hospital triage criteria. Stroke patients with special needs may be initially transferred to a Certified Primary Stroke Center for assessment and treatment. 'Code Stroke' Patients should be transferred out to a Certified Primary Stroke Center within 1 hour.

When resources beyond its capability are needed, transfer to another stroke designated facility outside the Heart of Texas should be expedited. The Heart of Texas initial-receiving facilities may also choose to transfer patients with special needs directly to these facilities, bypassing the Certified Primary Stroke Centers when appropriate.

Stroke Patient Transport - Stroke patients in the Heart of Texas 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 (fixed and roto wing) is also available in this Region.

Stroke Patient Rehabilitation – Rehabilitation and continued care of the stroke patient will be a coordinated effort involving but not limited to the stroke patient, the patient's family, physicians, stroke facility and referring facility. **The goal of this Region is to provide the best possible care for a stroke survivor including return to referring facility when applicable.**

Stroke Level A – Last Known Wellness 0-4.5 hours *IF UNABLE TO COMPLETE ANY ITEM BELOW, TRANSFER IMMEDIATELY TO A CERTIFIED PRIMARY STROKE CENTER*	Stroke Level B – Last Know Wellness 4.5 - 24 hours
□ Activate Code Stroke □ NIHSS Score: _____. □ LVO Scale: _____ □ STAT ACCU-check: _____ □ Ensure 2 IV lines *(do not delay transfer to complete)* □ Prepare for IMMEDIATE transfer to Certified Primary Stroke Center □ STAT non-contrast CT Head Time to CT: _____ (Door to CT < 20 min) Time CT resulted: _____ (Door to results < 45 min) □ STAT EKG & continuous cardiac monitoring. Vital signs every 15 minutes w/ neuro checks. □ O_2 _____ Lpm, via nasal cannula □ STAT lab: CBC, CMP, PT/PTT, Troponin (Door to results < 45 min) □ Review Inclusion Criteria □ Review Exclusion Criteria □ Initiate alteplase Administration set □ Review CUT-OFF TIME, consider administration of IV alteplase	□ NIHSS Score: _____. □ LVO scale: _____ □ Initiate stroke protocols □ STAT non-contrast CT Head Time to CT: _____ (Door to CT < 60 min) Time CT resulted: _____ (Door to results < 120 min) □ STAT ACCU-check: _____ □ STAT EKG & continuous cardiac monitoring. Vital signs every 15 minutes w/ neuro checks. □ O_2 _____ Lpm, via nasal cannula □ Ensure 2 IV lines □ STAT lab: CBC, CMP, PT/PTT, Troponin (Door to results < 45 min) □ Admission/Transfer (circle one)
Contraindications for alteplase Administration: • Last known well of greater than 4.5 hours. • CT findings of intracranial hemorrhage, subarachnoid hemorrhage, or major infarct signs • History of intracranial hemorrhage, large brain aneurysm, vascular malformation, or brain tumor • Known intracranial AND intra-axial neoplasm. • GI malignancy or bleed within 21 days • Known or suspected aortic arch dissection • Current use of LMWH w/in last 24 hours • Concurrent use of Glycoprotein 2b/3a receptor inhibitors • Concurrent use of direct thrombin inhibitors or direct Factor Xa inhibitors within last 48 hours • Clinical symptoms suggesting infective endocarditis. • Symptoms determined to be Mild AND Nondisabling • Internal bleeding within 21 days • IV or IA alteplase given at transferring hospital. • No IV access • Patient/family refusal • Platelets less than 100,000, PTT greater than 40 seconds after heparin use (do not wait for results to start but stop if true) • PT greater than 15 or INR greater than 1.7, or unknown bleeding diathesis (do not wait for results to start but stop if true) • Recent intracranial or spinal surgery, head trauma, or stroke (less than 3 months) • Recent surgery/trauma within 14 days • Suspicion of subarachnoid hemorrhage • Systolic blood pressure greater than 185 or diastolic blood pressure greater than 110 mm hg • Unable to determine eligibility.	INCLUSION CRITERIA for alteplase o Age 18 or over o Clinical diagnosis of ischemic stroke causing a measurable neurological deficit. o Time of onset of symptoms well established to be < 270 minutes before treatment would begin. Warnings/Conditions That May Lead to Unfavorable Outcome: o Acute pericarditis WITH MILD DISABILITY o Glucose less than 50 or greater than 400 mg/dl o Left heart thrombus WITH MILD DISABILITY o Myocardial infarction (MI) within the past 3 months o Pregnancy **SIGNATURES:** Place label here **CODE STROKE was not activated due to one of the following:** □ **DNR (Do Not Resuscitate)** □ **Patient Request** □ **Patient left AMA** □ **Other: _____** □ **Comfort/Palliative Care**

Date_____ Patient arrival time: _____ Symptom Onset Time: _____ Level (circle one): A B C Patient

Name: _____ MR/Chart #: _____ Facility: _____ ***submit this form with regional PI.*

Revised 8.25.20

Heart of Texas RAC Regional Stroke Transfer Monitoring Tool

	Pre-Transfer											Post-Transfer	Transfer Facility Information
Time:													Date:_____
Initials:													Transfer Facility: _____
GCS and Pupil Assessment													Receiving Facility:_____
Eye Opening													Time of last known well/seen normal:_____
Verbal													
Motor													NIHSS: _____
Left Pupil (size/reaction)													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***
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													*Maintain Blood Pressure per Blood Pressure Guidelines* Has BP med been administered? YES NO • If YES: Medication & dose:_____ Time given: _____
Respirations													
BP													

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

Print Physician Name: _____

Physician Signature: _____

RN Print Name: _____ RN Signature: _____

EMS Paramedic Print Name: _____ EMS Agency Name: _____

Patient label

Trauma System

Trauma Patient – 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.

Classification of Trauma Patients

Patients in the Heart of Texas Region are classified according to severity of injury to determine the medical resources which may be required. Trauma Patients will be triaged and transported in the Heart of Texas according to the following guidelines:

Category A (Red). Trauma Patients with the most severe injuries are classified as Category A patients. Patients with the following problems are included in this category and will require the medical resources available at a Heart of Texas Lead Trauma Facility.

- Respiratory Compromise/obstruction
- Trauma patient receiving blood or blood products.
- GCS less than 14 with traumatic mechanism
- O_2 sat less than 92%
- Adult Patients with SBP less than 100
- Geriatric Patients (over 65) with SBP less than 110
- Child less than one year with SBP less than 70 or heart rate less than 100 or more than 190
- Child 1-9 years with SBP less than 70 + 2 x age in years or heart rate less than 80 or more than 150
- All penetrating injuries to head, neck, and torso or proximal to knee/elbow
- Amputation proximal to the wrist or ankle
- Suspected Two or more proximal long bone fractures (femur, humerus, tibia)
- Open fracture (humerus, femur, tibia)
- Suspected Pelvic fractures
- Burns greater than or equal to 10% BSA determined in the field by EMS.
- Burns greater than 20% BSA determined in an emergency department.
  - If greater than 20% BSA; transfer directly to a Burn Center
  - If burns are located on the face, hands, feet, or genitals, transfer directly to a Burn Center.
  - If burns are greater than 10% BSA if under 6 years old; transfer directly to a Burn Center.
- Suspected inhalation injury
- Temperature less than or equal to 95˚F
- Heart rate more than 130
- Patients with new onset paralysis
- Crush injuries
- Pulseless extremity

SPECIAL ATTENTION: An isolated sexual assault should be transferred to a TSA M trauma facility that has a SANE available. This information is maintained on EMResource.

Category B (Yellow). Category B trauma patients are those with injuries not classified as Category A and have a significant mechanism of injury.

Mechanism of Injury

- Motor Vehicle Collision
  - With ejection (partial or complete)
  - Speed more than 30 mph
  - Death in same passenger compartment
  - Intrusion: > 12 inches occupant side; > 18 inches any side
- MCC/ATV/Bike/Large animal
  - Separation of rider
  - Crash speed more than 20 mph
  - Run over.
- Falls (greater than 10 feet or 2x child's height if under 6 years old)
- Assault/child abuse
- Auto/Pedestrian
- Fire, etc.
- Hanging/Immersion

If patient is greater than sixty-four (64) years of age and has a trauma mechanism, strongly consider transfer to the Lead Trauma Facility.

Findings

- Head
  - Suspected skull fracture
  - Documented LOC greater than 5 minutes
- Neurologic
  - GCS less than 15
  - Focal deficit
  - Traumatic paresis
- Musculoskeletal
  - Suspected Femur fracture
  - Suspected Spine fracture
  - Pulseless extremity
- Abdomen
  - Severe abdominal pain
  - Seat belt "abrasions"
- Burns
  - Less than 10% BSA
- Chest
  - O_2 sat less than 92%
  - Suspected Multiple (more than 2) rib fractures.
  - Sub Q air
  - Suspected Pneumothorax/Hemothorax
  - Significant neck and/or chest "abrasions"

- Pregnant over 20 weeks gestation

Trauma patients not meeting the Category A or B criterion should be taken to the closest trauma designated facility.

Pre-hospital Triage/Offline Medical Control

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 Heart of Texas trauma facility where the patient can best receive definitive care. **When on-line medical control is needed but unavailable, EMS personnel will proceed to the nearest appropriate trauma facility without delay and maybe transferred for definitive care.**

Purpose

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.

System Triage

1. Unless immediate stabilization (ABC's, cardiac arrest, etc.) is required, patients in the Heart of Texas with injuries listed in Category A, should be taken directly to the Heart of Texas Lead Trauma Facility or another appropriate trauma facility offering resources not available at the Heart of Texas Lead Trauma Facility.
2. If ground transport time to the Heart of Texas Lead Trauma Facility is greater than 30 minutes or if lifesaving interventions (e. g. airway stabilization, chest tube insertion, etc.) are required for safe transport, contact medical control and/or take the patient to the nearest medical facility.
3. Pre-hospital should always monitor EMResource® for facility capabilities. When in doubt, call the appropriate facility directly for confirmation of resource availability.

Helicopter Activation

Goal

The regional air transport resources will be appropriately utilized to reduce delays in providing optimal trauma care for severely injured trauma patients.

Decision Criteria

1. Helicopter activation/scene response should be considered when it can reduce transportation time for Category A trauma patients. Should there be any question whether to activate regional air transport resources, on-line medical control should be consulted for the final decision.
2. Additionally helicopter activation/scene response should be considered when:
    - Patient extrication time will be prolonged (> 20 minutes).
    - Multiple patients on scene
    - Ejection from MVC

3. Patients being transported via helicopter should be taken to the Lead Trauma Facility unless otherwise noted in EMResource®.
4. The closest available helicopter should be utilized to reduce transport time to the Lead Trauma Facility.

Emergency Department and/or Trauma Diversion

Goal

The Heart of Texas trauma facilities will communicate "Emergency Department and/or Trauma diversion" status promptly and clearly to regional EMS and trauma facilities through EMResource® to ensure that trauma patients are transported to the nearest appropriate alternate trauma system facility.

System Objectives

1. To ensure that trauma patients will be transported to the nearest appropriate Heart of Texas trauma facility.
2. To ensure that diversion of ambulance traffic will occur only by pre-arrangement.
3. To develop system guidelines for regional facility and trauma diversion status (see EMResource® guidelines):
    - Situations which would require the emergency department to go on diversion.
    - Notification/activation of emergency department status
    - Procedure for termination of diversion status
4. Each facility will develop a mass casualty plan. Facility plans will reference the appropriate use of the Heart of Texas disaster resources, if needed.
5. Regional trauma care problems associated with emergency department and/or trauma diversion will be assessed through the Physician Advisory Committee Performance Improvement process.
6. All facilities and pre-hospital providers will use EMResource® to notify and track diversion statuses.

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 (Category A patients) will be safely and rapidly transported to the Heart of Texas Lead Trauma Center. Category B patients will be safely and rapidly transported to the Lead Trauma Center within the Heart of Texas unless transport time to that trauma facility is greater than 30 minutes then the patient should be taken to the nearest appropriate trauma facility.

Decision Criteria

Regional transport guidelines ensure that patients who meet the triage criteria for activation of the Heart of Texas Regional Trauma System will be transported directly to the nearest appropriate trauma facility rather than to the nearest facility 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. Medical Control may wish to order bypass in any of the above situations as appropriate, such as 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 trauma facility 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 trauma facility.

Facility Triage Criteria

Goal

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

Objectives

- 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 nearest appropriate Heart of Texas trauma facility.
- To ensure the prompt availability of medical resources needed for optimal patient care at the receiving trauma facility.
- To develop and implement a system of standardized trauma patient classification definitions.

Discussion

Trauma patients in the Heart of Texas are assessed and classified by severity of injury. The classification of trauma patients is based on a standard definition of the "trauma patient" which is applied in a consistent manner in both the pre-hospital and facility setting.

The Trauma Patient - The definition of the trauma patient in the Heart of Texas is derived from the American College of Trauma Surgeon's definition of trauma. In the Heart of Texas, 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 which occurred within 10 days.

Facility Triage Criteria - Trauma patients are assessed in the pre-hospital setting and transferred to the nearest appropriate trauma facility in accordance with the Heart of Texas Classification of Trauma Patient. Upon admission to the facility emergency department, trauma patients receive initial treatment and re-assessment of their condition. The severity of injury and classification of trauma patients in the initial treating emergency department determines the optimal level of trauma care needed. Category A Trauma patients should not be admitted/observed at a Level IV Trauma Facility. Category B Trauma patients should not be admitted/observed at a non-designated trauma facility. If a Category A or B Trauma patient is admitted/observed for a sub-specialty at a Level IV or non-designated trauma facility, then that case shall be reviewed and reported to the RAC. Transfers should be initiated as soon as it is noted.

**If a trauma patient needs a CT for possible injury to chest, abdomen, and/or pelvis, should have CT with contrast done. If unable to do CT with contrast, send the trauma patient to Lead Trauma Facility and they will complete the CT series.

Pediatric Trauma Triage Destination Criteria *(Age: less than 15 years old)*

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 pediatric trauma facility where the patient can best receive definitive care. When on-line medical control is needed but unavailable, EMS personnel will proceed to the nearest appropriate trauma facility without delay.

CLASSIFICATION OF PEDIATRIC TRAUMA PATIENTS

Pediatric trauma patients in the Heart of Texas are classified according to severity of injury to determine the medical resources which may be required. EMS personnel will triage and transport trauma patients in the Heart of Texas according to the following guidelines:

Category A. Trauma patients with the most severe injuries are classified as Category A patients. Patients with the following problems are included in this category and will require the medical resources of a Verified Level I or Level II Pediatric Trauma Facility. When appropriate (based on distance and weather), Category A pediatric trauma patients should be transported by helicopter; otherwise, the patient should be transported by ground to the closest appropriate: Verified Level I or Level II Pediatric Trauma Facility, Baylor Scott & White Hillcrest Medical Center or a closer Level I or II Trauma Facility.

- Respiratory compromise/obstruction
- Trauma patient receiving blood or blood products.
- GCS less than 13
- O_2 sat less than 90% on room air.
- Child less than one year with SBP less than 70 or heart rate less than 100 or more than 190
- Child 1-9 years with SBP less than 70 + 2 x age in years or heart rate less than 80 or more than 150
- Amputation proximal to the wrist or ankle
- Suspected two or more proximal long bone fractures (femur, humerus)
- Any open fracture
- Suspected pelvic fractures.
- **Burns greater than 10% BSA directly to a Burn Center.**
- **Suspected inhalation injury directly to a Burn Center**
- Patients with traumatic paralysis
- Pulseless extremity with traumatic mechanism
- Suspected crush injuries

Inter-Facility Transfers

Goal

The goal for establishing and implementing inter-facility transfer criteria in the Heart of Texas is to ensure that those trauma 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

- To ensure that all regional facilities make transfer decisions based on standard definitions which classify trauma patients according to the Heart of Texas facility triage criteria.
- To identify trauma treatment and specialty facilities within and adjacent to the Heart of Texas.
- To establish treatment and stabilization criteria and time guidelines for the Heart of Texas patient care facilities.

Discussion

Baylor Scott & White Hillcrest Medical Center is the Lead Trauma Facility in the Heart of Texas and accepts all Category A and B patients from any requesting the Heart of Texas facility. A toll-free number has been established and distributed to all Heart of Texas emergency medical and hospital providers:

BSW - Hillcrest Trauma Transfer Phone Line: **1 – 888 – 872 – 8626**

Medical personnel calling this number receive an "automatic acceptance" for these trauma patients. The time guideline for trauma patient transfers in the Heart of Texas is to transfer Category 1 trauma patients immediately to the Heart of Texas Lead Level II Trauma Facility. Category B trauma patients should be initially transported to the closest trauma facility for stabilization. If admission is necessary, the patient should be transferred to the Lead Heart of Texas Trauma Facility within two (2) hours from the time the patient arrived at that facility. These criterions (see attached Regional Trauma Alert Form) are monitored through the regional PI program.

Identification of Trauma Patients & Trauma Transfers - Trauma patients and their treatment requirements for optimal care are identified in the Heart of Texas facility triage criteria and pre-hospital triage criteria. Written transfer agreements are available between all the Heart of Texas facilities, and facilities in adjacent regions. Trauma patients with special needs may be transferred to the Lead Trauma Facility for assessment and initial treatment by the trauma team. When resources beyond its capability are needed, transfer to another trauma designated facility outside the Heart of Texas Region should be expedited. The initial-receiving facilities may also choose to transfer patients with special needs directly to these facilities, bypassing the Lead Trauma Facility when appropriate.

Below are lists of possible trauma facilities that may be utilized outside the Heart of Texas Region (DSHS website as of 12/3/2020):

LEVEL I

- **Baylor Scott & White – Temple – TSA L** Trauma transfer line: 877-427-4159
- **Baylor University Medical Center – TSA E**
- **Children's Medical Center of Dallas – TSA E**
- **Dell Children's Medical Center – TSA O**
- **Dell Seton Medical Center at UT – TSA O**
- **John Peter Smith Hospital – TSA E**
- **Medical City Plano – TSA E**

- **Methodist Dallas Medical Center – TSA E**
- **Parkland Memorial Hospital – TSA E**
- **San Antonio Military Medical Center – TSA P**

LEVEL II

- **Baylor Scott & White McLane Children's Medical Center – TSA L** Transfer line: 254-935-KIDS (5437)
- **Ascension Seton Williamson – TSA O**
- **Baylor Scott & White – Grapevine – TSA E**
- **Cook Children's Medical Center – TSA E**
- **Medical City Arlington – TSA E**
- **Medical City Denton – TSA E**
- **Round Rock Medical Center – TSA O**
- **St. David's South Austin Medical Center – TSA O**
- **St. Joseph Regional Health Center – TSA N**
- **Texas Health Harris Methodist Hospital Ft Worth – TSA E**
- **Texas Health Presbyterian Hospital Dallas – TSA E**
- **Texas Health Presbyterian Hospital Plano – TSA E**

Trauma Patient Transport - Trauma patients 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 (fixed and roto wing) is also available in this Region.

Trauma Performance Improvement will be completed on all trauma patients that are admitted, transferred, or die.

Regional Trauma Level Alert Form

Date_____ Patient arrival time: _____ **Level (circle one): A B** Patient Discharge Time: _____

Check all criteria met by patient. Method of arrival: □EMS_____ □ Air Med _____ □ POV

Trauma Alert A – Stabilize and Initiate Transfer to the appropriate Trauma Center (Cat. A - ED time < 1 hrs.)

- □ All penetrating injury to head, neck, torso or proximal to knee/elbow
- □ Respiratory compromise/obstruction
- □ GCS < 14 with traumatic mechanism
- □ O_2 sat < 92%
- □ Adult SBP < 100
- □ Greater than sixty-four (64) years of age with SBP ≤ 110
- □ Child < 1 year with SBP < 70 or HR < 100 or > 190
- □ Child 1-9 years with SBP < 70 + 2X age (in years), HR < 80 or > 150
- □ New onset paralysis
- □ Pulseless extremity with traumatic mechanism
- □ Sexual Assault (SANE)
- □ Amputation proximal to wrist or ankle
- □ Two or more proximal long bone FX (humerus, femur, tibia)
- □ Unstable Pelvic FX
- □ Trauma transfer receiving blood or blood products
- □ Any open FX (humerus, tibia, femur)
- □ Core Temperature ≤ 95° F
- □ Burns ≥20% BSA as determined by ED
- □ Suspected or confirmed inhalation injury
- □ Temperature less than or equal to 95 degrees F
- □ Crush injuries
- □ ED MD discretion

Trauma Alert B (Cat. B)

ED NURSE

MVC
- □ with ejection (partial or complete)
- □ speed > 30 mph
- □ intrusion: > 12 inches occupant side or > 18 inches any side
- □ death in same passenger compartment

□ FALLS (> 10 feet or 2x child's height)

□ ASSAULT/CHILD ABUSE

□ AUTO PEDESTRIAN

MOTORCYCYLE/ATV/BIKE/LARGE ANIMAL
- □ separation of rider
- □ crash speed > 20 mph
- □ run over

□ BURN

□ HANGING/IMMERSION

□ SNAKEBITE

ED PHYSICIAN

Signatures	Time

Trauma Alert B - Transfer Track (Cat. B) (ED time ≤ 2 hours)

ED Physician: _____ Exam Time: _____

CHECK ANY POSITIVE FINDINGS

- □ Greater than sixty-four (64) years of age with SBP ≤ 120
- □ Pregnant over 20 weeks gestation

HEAD
- □ any skull fracture
- □ documented LOC > 5 minutes

NEUROLOGIC
- □ focal deficit
- □ traumatic paresis
- □ GCS < 15

MUSCULOSKELETAL
- □ femur FX (not isolated hip)
- □ spine FX

ABDOMEN
- □ severe abdominal pain
- □ seat belt "abrasions"

BURNS
- □ less than 20% BSA (face, hands, feet, genitalia, perineum, and/or major joints)

CHEST
- □ multiple (> 2) rib fractures
- □ sub-Q air
- □ pneumothorax/hemothorax
- □ O_2 saturation < 92%
- □ significant neck and/or chest abrasions

- □ Snakebite with envenomation
- □ ED PHYSICIAN DISCRETION

Patient Label

Disposition: □ Home □ Floor □ OR □ Morgue □ Acute transfer to _____ EMS called: _____ ETA: _____ EMS Arrival: _____

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
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 the Disaster Behavioral Health Section starting on page 72.

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.

Regional Medical Coordination 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 Heart of Texas Region has a population of approximately 352,661. 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 176 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 Heart of Texas RAC will maintain a current signed copy of the regional memorandums of understanding allowing for mutual aid among the Heart of 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
	Reeves					ABC			fx rt		admitted	
i.e.,	Hospital	Christine	Reeves	F		EMS	yellow	green	ulna	stable	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.

Pediatric Surge Capacity

Purpose

The purpose of this plan is to be a supporting annex the HCC-M Regional Response Plan, to protect children and provide appropriate pediatric medical care during a disaster. The annex will give local medical services guidance on the care of children, including patient movement, system decompression, recommendations for care, and resource allocation during a surge of pediatric patients that overwhelms the local health care systems. This plan is intended to support, not replace, any existing facility or agency policy or plan by providing uniform response actions in the case of an emergency that involves (or could involve) significant number of children.

Demographics

General demographic information about the Region starts on page 3 of this document. The table below depicts the pediatric population dispersal of the Heart of Texas Region.

County	Pediatric (0-5 years) population	%	Pediatric (0-18 years) population	%	Total Population
Bosque	935	5%	4,036	21.6%	18,685
Falls	1,038	6%	3,598	20.8%	17,297
Hill	2,163	5.9%	8,576	23.4%	36,649
Limestone	1,477	6.3%	52,477	22.4%	23,437
McLennan	17,967	7%	63,386	24.7%	256,623
Totals	**23,580**		**132,073**		**352,691**

Source: https://www.census.gov/quickfacts/fact/table/TX/PST045219

Notifications

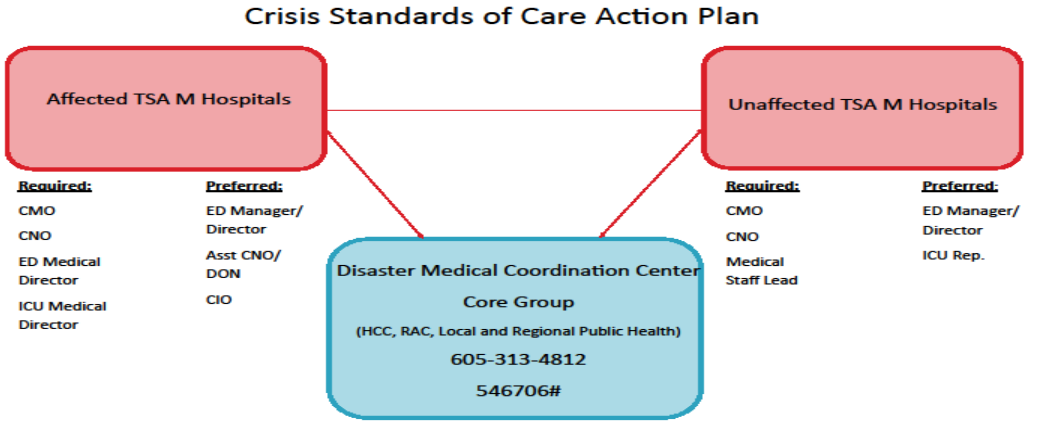
The DMCC will notify health care facilities throughout the Region that the DMCC is beginning operations. Health providers may coordinate with the DMCC for patient transfer from the on-scene treatment area to an appropriate health care facility based on its capacity and specialized capabilities. The DMCC anticipates unmet needs of personnel, bed space, pharmaceuticals, and supplies in health care facilities. If the scope of the emergency expands to the point that facilities within the Region have exhausted or are depleting internal response assets, the DMCC will assist with the coordination of requests with the following agencies: local fire, police, EMS, city and/or county emergency management office, mutual aid coordinated by the Heart of Texas Resource Advisory Council, Texas Department of State Health Services (DSHS), Texas Department of Public Safety (DPS), Texas Disaster District Committee (DDC), and/or Federal Emergency Management Agency (FEMA), and any other applicable agency.

Roles and Responsibilities

The physician in charge of the McLane Children Medical Center's Emergency Department the time of event would be the lead pediatric SME. Cook Children's Medical Center's Emergency Department may provide online medical control or consultation for Hill Regional Hospital who sometimes transfers there. It may serve as a back-up SME in the case McLane Children's cannot be reached.

While the Heart of Texas Region does not have a pediatric facility, there is several facility inpatient beds available for use locally. Otherwise, the surge would need to transfer out of the Region depending on the severity of the patients. If low severity, consideration of opening an alternate care site may be needed. Please see the Alternate Care Site Plan for specific information.

Should crisis standards of care decisions need to be made absent direction from local, regional, or state authorities, this Region will use the following conference call option to optimize everyone's time and keep all the facilities on the same page and decision matrix.



When planning for crisis standards of care at the Regional emergency healthcare system level , an all-hazards planning model is impractical. Because of healthcare systems' multifaceted nature, compounded with an unknown disaster scope, Heart of Texas RAC has opted for a conference bridge to allow medical leaders to discuss the situation and develop incident specific treatment protocols (crisis standards for care). In the event a situation arises that is complex enough for regional coordination of operation and recovery to be established, this medical leaders group from Trauma Service Area M hospitals will convene via telephone conference, in person, or other appropriate modalities, to create an incident specific plan of action.

White Paper: Disaster Response for Pediatric Hospitals and Specialty Patients

Developed by:

Pediatric Disaster Coalition

Connie Schneider Eastlee, RN, MS, CMTE
Lori Upton, RN, BSN
Kevin Shitoskey, RN, BSN, CFRN
Byron Piatt,
Garry Sitler,
Jack Sosebee,
Dawne Sokora, RN
Chris Yuhas,
Carol Hasty,
Christine Reeves,
Angela Crawford,
Jean Bennett,
Susan Engleman,
Kim Montgomery,
Melissa Low,
Scottie Edgar Floyd,
April Anderson,
Pam Sprague,
Chad Sommer,
Mike Shutrump,
David Wood,
Doug Brown,
Amy Mersiovsky,
Janice Hughes

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Introduction

The unique needs associated with the evacuation of Neonatal Intensive Care Units (NICU) and Pediatric Intensive Care Units (PICU) patient populations has not historically been recognized or well understood by hospital or governmental officials. When planning for hospital evacuations, Hurricanes Katrina and Rita brought to light the logistical challenges associated with the mass evacuation of several pediatric facilities and demonstrated multi-state asset mobilization of seven specialty transport services (Appendix A). Much can be garnered from the responses and evacuations in other states, most notable states with Barrier Islands and linear coastal areas (Florida, North Carolina, and South Carolina).

Pediatric and neonatal patient transportation is a labor, training, and equipment intensive process. There is a need for development of planning guidance for healthcare facilities as well as local, state, regional and federal jurisdictions centered around the awareness of pediatric needs.

The Challenge

The challenges faced by the pediatric specialty facilities and their transport services advocates within the HHS Federal Planning Region VI (Texas, Arkansas, Louisiana, Oklahoma, and New Mexico), led to the formation of the Pediatric Disaster Coalition. These entities, brought together by shared goals, decided to collaboratively address the lessons learned from prior disasters requiring evacuation of pediatric facilities.

This planning group consists of subject matter experts from free-standing children's hospitals, facilities with dedicated pediatric/neonatal units, pediatric specialty transport organizations, local and state public health and federal partners. The Coalition's intention is to provide recommendations and technical guidance to be shared with other healthcare facilities, local, state, and federal agencies, and other key stakeholders such as the Child Health Care Association (CHCA), the National Association of Children's Hospital and Related Institutions (NACHRI), Association of Air Medical Services (AAMS), American Academy of Pediatrics (AAP) Section on Transport Medicine and others.

Goals

The Pediatric Disaster Coalition has identified the following initial goals for HHS Region VI:

- assure that the emergency operations plan incorporates the use of civilian air medical resources to ensure prompt and coordinated evacuation of these specialty patients.
- provide guidelines for coordination of the response effort.
- identify appropriate receiving facilities to assume care of the evacuated patients.
- disseminate information to those stakeholders responsible for pediatric and neonatal evacuation planning.
- integrate recommendations into hospitals, local, and state emergency operations plans.
- provide advance funding mechanisms and MOUs for transfers of specialty patients.

Current Situation

Ultimately, every healthcare facility has the legal and moral obligation to provide appropriate emergency planning to ensure continued care of their patients. Historically, evacuation planning in the healthcare setting focused on movement horizontally and vertically in the event of fire or other isolated incident. Regulatory agencies now require hospitals to develop a "written all hazards emergency management plan" and perform Hazard Vulnerability Assessments (HVA's) which provides processes for evacuating the entire facility when

the environment cannot support adequate care, treatment, and services. The plan must address transporting patients, staff, and equipment to other facilities or alternative care sites.

The Pediatric Disaster Coalition has concluded, based on research, actual incidents, and exercises, that the requirements for transportation resources exceed the local availability to evacuate pediatric facilities to similar facilities. A relatively large proportion of the adult population uses hospital facilities compared with the relatively small percentage of the total pediatric population (<5%) that uses inpatient care. As a result, pediatric inpatient capacity is more limited relative to the baseline population of children. Thus, to significantly increase pediatric capacity during a disaster, a more regionalized approach must be considered for children. (Baldwin)

While all emergency planning begins at the local level, the healthcare community historically has relied on external entities to address resource gaps. Resource requests from a healthcare facility would be communicated to the local emergency operations center (EOC). If the local government cannot meet the need, the request would be elevated to a regional or state coordinating center. If the state is unable to meet the needs, the governor can institute their Emergency Management Assistance Compact (EMAC) agreements with neighboring states if applicable, and/or begin the process of declaring a state disaster and requesting assistance from the federal government.

The National Disaster Medical System (NDMS) is the primary federal program that supports the evacuation of patients during disasters. Despite federal and state pre-planning to stage transport assets near a disaster location, NICU and PICU patients cannot be effectively transported through the NDMS in a mass-evacuation scenario due to lack of specialty teams and equipment. And currently, civilian air medical services are not included in most state or federal disaster response plans.

Recommendations

This paper will outline actions which should be incorporated into pediatric facilities evacuation plans. The paper also offers HHS and other governmental agencies best practices and a model to successfully respond to any Federal, Regional, State, and local evacuation of PICU and NICU patients.

As a result of the research and collaborative efforts, the Coalition offers these recommendations and best practices:

1. Provide education and information to all key stakeholders with responsibility for evacuation of specialty patients by distributing this White Paper.
2. Utilize the coalition's database of all pediatric capable hospitals, (including PICU and NICU dedicated units) and specialty transport teams in HHS Region 6. This database will indicate what local and regional resources are available to utilize in an incident. The database includes but is not limited to the following elements:
    a. Surge capacity
    b. Transport vehicles (helicopters, fixed wings, ambulances)
    c. Specialty teams and composition of crew members
    d. Transport equipment (isolettes, ventilators, nitric, ECMO)
    e. Contact information.
3. Execute Memorandums of Understanding (MOUs) between facilities, their transport teams, and governmental agencies. A sample MOU will be included which details:
    a. Deployment of transport assets
    b. Processes such as mobilization of assets, liability, reimbursement, billing, etc.
    c. Agreement to accept patients at similar or higher level of care.

d. Sharing credentialed staff
e. Repatriation of patients
f. Reimbursement for transports

4. Request each state to develop specialty EMAC agreements that include pediatric and neonatal patients with specific transport equipment and requirements.
5. Partner with national pediatric associations such as CHCA, NACHRI and AAP to educate governmental agencies, hospital administrators and emergency managers as to the unique requirements of transporting specialty pediatric and neonatal patients.
6. Disseminate a comprehensive tabletop exercise for hospitals and states to use as a model or template for local adaptation.
7. Coordinate with local, state, and federal agencies regarding critical issues such as:
    a. Integration of civilian specialty transport teams into local, state or federally directed missions.
    b. Command, control, and coordination of transportation assets
    c. Communication interoperability
    d. Aviation issues (fuel, duty time, airspace restrictions)

Summary

Pediatric and neonatal patient evacuation is a labor, training, and equipment intensive process. Regulatory agencies require healthcare facilities to plan for self-sufficiency for up to 96 hours and if evacuation is required, local transportation resources and pediatric hospital surge capacities are limited.

The Coalition requests all local, state, and federal agencies to address the pediatric and neonatal patient population evacuation needs by integrating civilian specialty transport teams into local, state or federally directed missions.

This model developed by the Coalition provides tools (such as the White Paper, database, MOU, and tabletop exercise) and a framework for other healthcare facilities and HHS regions to utilize when developing their evacuation plans for specialty patients.

The Pediatric Disaster Coalition advises all free-standing children's hospitals and facilities with dedicated pediatric/neonatal units to prepare for evacuations using this information and address the above recommendations.

Lessons Learned

The Pediatric Disaster Coalition has met to address lessons learned from evacuating Children's Hospital New Orleans Louisiana (CHNOLA) with hurricane Katrina. Driscoll Children's in Corpus Christi and Texas Children's in Houston both had evacuations with hurricane Rita. Seven pediatric transport teams participated in the two hurricane evacuations with various Rotor Wing (RW) and Fixed Wing (FW) responses. Five transport teams responded to hurricane Katrina and six transport teams responded to hurricane Rita.

- Arkansas Children's Hospital, Little Rock, AR – 1 RW, 2 FW and one C130 Air Guard
- Cook Children's Hospital, Fort Worth, TX – 1 RW and 1 FW
- Texas Children's Hospital, Houston, TX – 1 RW and 1 FW
- Miami Children's Hospital, Miami, FL – 1 RW and 1 FW
- Mercy Children's Hospital, Kansas City, MO – 1 FW and two C130's Air Guard
- Children's Medical Center, Dallas, TX – 1 RW and 1 FW
- Drsicoll Children's Hospital, Corpus Christi, TX – 2 FW

A SWOT Analysis and Gap Analysis has uncovered considerable challenges, including but not limited to the following:

a. Surge capacity limitations (e.g., definitions, physical versus licensed beds, alternative care sites)
b. NICU / PICU patients must go to same or higher level of care (not alternative sites)
c. High volume of patients requiring specialized care during transport (Nitric, high frequency ventilators, ECMO)
d. Pediatric population not planned for in State / Federal responses
e. Lack of drilling total evacuations at hospitals
f. Determination of alternate Landing Zones (LZs) at hospitals
g. Lack of Landing Zone control and communication with ground personnel or hospitals
h. Logistics of landing at airport versus referring / receiving hospitals.
i. Triage of patients at sending facility.
j. Limited capabilities of non-cross trained pediatric/neonatal teams to evacuate multiple patients.
k. Lack of communication between Children's Hospitals to accept patients and know bed capacity for ICU and specialty patients.
l. EMAC (state driven) agreements for mutual aid. Governor to Governor request. Specialty pediatric transport teams are not considered when asking for EMAC assistance between states.
m. Lack of drilling EMAC agreements between states
n. Identification of patients / families during evacuation
o. Transporting parents with critical patients
p. EMTALA / HIPAA / Consent issues
q. FAA duty time limitations for pilots evacuating hospitals.
r. Lack of refueling capabilities and priority at local airports.
s. FAA restricted airspace issues surrounding disaster areas.
t. Lack of specialty teams to repatriate evacuated patients.
u. Communication shortfalls
    i. Different radio frequencies for different states and municipalities (interoperability)
    ii. Cell coverage frequently lacking in disaster situations.
    iii. Lack of ATC and airspace radio communication
    iv. Lack of ability to recharge cell phones, sat phones, and handheld radios.
    v. Lack of knowledge of EOCs frequencies

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Disaster Behavioral Health Response Plan

The Heart of Texas Region Disaster Behavioral Health Response Plan (DBHRP) provides an effective, organized system to manage the consequences of emergencies and disasters which impact consumers, staff, and area residents. The response may include immediate crisis intervention, short term and long-term support for emotional needs and support of first responders. This Plan is designed to guide the behavioral health planning, intervention, and response efforts relative to disasters of any type. Disaster response will be coordinated with other agencies, including Heart of Texas Region Mental Health and Mental Retardation (MHMR), Klaras Center, Education Service Center Region 12, Waco Center for Youth, Waco VA Medical Center, as well as the hospitals and EMS Providers within TSA M.

PURPOSE

A. To define the method in which the HOTRAC can support the efforts of local disaster operations by providing specific behavioral health interventions.
B. To ensure an efficient, coordinated, and effective response to the disaster behavioral health needs of the population in time of a disaster.
C. To ensure coordination of behavioral health services among the TSA M mental health facilities and local Emergency Management.
D. To provide disaster crisis counseling services to the affected population of TSA M, as well as emergency responders.

PRINCIPLES

A. All who experience a disaster are affected, in varying degrees, individually and collectively. Witnessing massive destruction and terrible sights evokes deep feelings. Often residents of disaster-stricken communities report disturbing feelings of grief, sadness, anxiety, and anger. Everyone who sees or is trained to respond in a disaster is, in some sense, a victim.
B. The psychological effects of the disaster will be immediate but also may be long term and potentially not manifest for months or years following the disaster.
C. Disaster response should be a local response as much as possible.
D. Different segments of the population will require different levels of behavioral health services, depending on the nature of the disaster.
E. In a disaster, most victims are normal persons who function well with the responsibilities and stresses of everyday life. However, a disaster may add stress to the lives of these individuals. The signs of stress may be physiological, cognitive/intellectual, emotional, or behavioral. These stress reactions are expectable and understandable reactions to an abnormal event. Sometimes these stress reactions appear immediately following a disaster. In some cases, they are delayed for a few days, weeks or even months.
F. People who have pre-existing stress before the disaster and/or who may have needed that merit special attention include children, disabled, elderly, poor, multicultural, and racial groups, people requiring emergency medical care, people who have experienced previous traumatic events, people diagnosed as persons with mental illness or emotionally disturbed, people who lack support networks, and disaster relief workers.

G. The behavioral health needs of disaster workers and volunteers should be considered in both the planning and response to disasters. Support for these individuals is critical to protecting this valuable resource.
H. Disaster victims will be found among all populations in a disaster area. Disaster workers should provide appropriate interventions for all types of disaster victims, including counseling, public education, linkage, and referral/advocacy services.
I. Interventions must be appropriate to the phase of the disaster. Disaster behavioral health workers must recognize the varying psychological and emotional reactions to be expected during each phase of the disaster. It may be counterproductive to probe for feelings when shock and denial are shielding the survivor from intense emotion.

SCOPE

The Disaster Behavioral Health Response Plan has been developed to organize HOTRAC response to disaster situations ranging from small-scale emergencies to large-scale disasters requiring statewide coordinated efforts. It is based on the premise that emergency response begins and end at the local level.

This plan addresses the following priorities:

• Maintenance of essential services to current behavioral health consumers in a disaster.
• Provision of services to meet the acute behavioral health needs arising from a disaster
• Management of the necessary collaboration and coordination with other disaster assistance resources before, during and after the event.
• Provision of training and support for regional disaster behavioral health response teams, first responder and emergency medical personnel.

RESPONSE LEVELS

A. **Level Four Disaster**: Response by local mental/behavioral health agencies on duty staff only. HOTRAC will rely on the agreements between the Regional Support Networks (RSN) and its mental/behavioral health providers to implement plans for response. This level includes CISM and other responder support.
B. **Level Three Disaster**: Response by all mental/behavioral health available staff, including those who are off duty through notification by local Regional Support Networks. If it is determined that the local behavioral health resources are not sufficient to meet the needs of the community, a request to the HOTRAC may be made.
C. **Level Two Disasters**: Response by all available mental/behavioral health staff (including private practitioners) and the TSA M behavioral health network and Regional Support Networks.
D. **Level One Disaster**: Response by all available community (Regional Support Network and private practitioners), State, and Federal resources, activated by an event that overwhelms local systems, and requires assistance from the State or FEMA. Requests for out of state and federal resources will be made through the Emergency Management Division and in the event of a Presidential declaration of disaster, the FEMA Crisis Counseling Program.

PRE-DISASTER PLANNING

A. **Drills/Exercises/Real Event**
Whenever DBMH members of the HOTRAC are involved in a drill/exercise/real event, a written after-action report will be drafted for the purpose of identifying deficiencies and recommending opportunities for improvement based on lessons learned. This involvement will help to establish behavioral health as a regular and essential part of the overall response effort.

B. **Disaster-Related Services to be Provided.**

Disaster related services will be comprised of three levels of triaging:

- **First Triage Level**: Trained first responders will assist individuals and provide basic Psychological First Aid. If the individual requires more than this level of assistance, he/she will be referred to the SCRSN or its designee for behavioral/mental health assistance.
- **Second Triage Level**: Trained staff will determine if the individual referred by the SCRSN requires more than two contacts from clinically trained staff for purposes of stabilization. If it appears on-going, time limited behavioral/mental health assistance is needed a referral will be made to the third level of assistance.
- **Third Level of Assistance**: Clinically trained staff will determine the type and amount of on-going services that are needed for stabilization and provide the service or refer the individual for the appropriate assistance.

The following behavioral health services can be rapidly made available to victims of disaster, their families, the public, disaster workers and volunteers utilizing resources from individuals who have signed with the HOTRAC CISM Team and/or Waco-McLennan County Medical Reserve Corps to provide mental/behavioral health assistance. Specific services include: 24-hour response capacity, crisis intervention, psychological first aid, outreach, individual and community assessment, screening, and referral, CISD/CISM debriefings, crisis counseling, community education, stress management, brief supportive counseling, case management/advocacy, training, and support groups. Services will be appropriate to the phases and needs of each specific disaster.

Disaster behavioral health services may be provided at any of the following sites: Emergency Coordination Center or Emergency Operations Center, staging areas, hospitals, disaster affected areas, family assistance centers, and various community locations conducive to the above-mentioned services.

DISASTER BEHAVIORAL HEALTH RESPONSE Team (DBHRT) MEMBERS

The roles of DBHRT members, as well as the location and types of services that will be offered after a disaster event, are defined by the type and impact of the event. The behavioral health response to disasters is community-based. During the response phase, providing support is often what is most needed. Members will be assigned based on need and skills.

Whenever possible, members will be assigned to work in teams of two. If there are enough members to allow this arrangement, team members may work with other members or with emergency medical personnel, or other human service-type disaster responders. This ensures a system by which members can serve as a check-and-balance for each other in assessing needs, making decisions, setting priorities, etc. in the chaotic disaster environment.

DISASTER RESPONSE

A. **Procedures for Activating the Plan**

The following are general guidelines. In all instances, the magnitude of the disaster shall be the determining factor regarding the response by the HOTRAC.

1. **Disaster Notification**-Local Emergency Management may receive notification of an actual/potential disaster from a variety of sources, including but not limited to local hospitals, schools, public safety agencies or federal agencies.

The essential information to be obtained from the notification source includes: the type and cause of the disaster incident, the approximate time and place the disaster occurred or is expected to occur, the number and condition of person(s) involved, the current response plan (if any), the location of the staging area or the EOC (if established), the source for obtaining continued information, the name/title of caller and return phone number to verify information.

2. **Requesting DBHRT Support/Services**
   The HOTRAC will work closely with local officials to determine the scope of the disaster, local behavioral health resources and needs for continued behavioral health services. The *Initial Community Needs Assessment* form may be used for this purpose.

3. **Coordination with other Behavioral Health Responders**
   The Mental Health lead for the event will coordinate efforts and plan for a response. Typically, other behavioral health related resources might also respond to an event. If a single event, the HOTRAC Staff will handle coordination between the RAC persons and other response entities.

4. **Activation/Deployment of DBHRT**
   Members will be contacted by phone, or e-mail to request their services. The following information will be communicated to those DBHRT members who are able to respond:
   - The nature of the event.
   - Where to report (location of behavioral health staging area).
   - Whom to report to (in most cases this will be the Incident Commander or Liaison).
   - What to bring (ID badge, clothing, flashlight, personal meds, etc.). The nature and size of the event will dictate needs.

     Members will also be briefed and oriented at the scene using the HCC Briefing and orientation Checklist.

B. **<u>Assessment of Community Need</u>**

1. An initial community needs assessment will be conducted by the mental health lead utilizing the ***Initial Needs Assessment Form.*** The assessment shall evaluate: the nature of the event, the location where survivors are being assisted, the estimated number of survivors, the magnitude of the disaster with regard to casualties and damage incurred, response entities on the scene, if local behavioral health resources have been requested or are on the scene, the behavioral health status and needs of the community including special needs issues, the capacity of staff/team members from the affected area to respond and the needs of community leaders/ general public in the affected area.

2. The assessment should address the needs of survivors, their families, bystanders, witnesses, first responders and the community at large. An assessment of the scope and magnitude of the event and the number of people affected directly and indirectly should be carried out as quickly as possible. Psychological first aid, crisis counseling, and public education will be made available immediately for people in the community directly impacted by the disaster.

C. **<u>Deactivation of DBHRT Members</u>**
Deployment check-out is for members to share their impressions of the disaster event, address their emotional responses, discuss their specific roles, and evaluate their effectiveness in providing services.

The provision of disaster behavioral health services is stressful and challenging work. Staff may be exposed to significant traumatic situations. Provisions will be made for a post deployment check-in for all members of DBHRT as well as any support staff who require it. This may occur individually or in a group format.

POST DISASTER SERVICES AND ACTIVITIES

A. **Recovery Services**

1. Brief supportive counseling will be provided to survivors and their families, as well as other community members affected by the crisis. Psychological First Aid intervention is typically used in the immediate aftermath of a disaster and seeks to promote safety, create calm, orient survivors, connect them to social supports, support positive coping and instill hope.
2. DBRHT members will link survivors and their family members to appropriate behavioral health services. Special emphasis will be placed on assisting those individuals and families when it is apparent that short term counseling is not sufficient to address significant issues related to trauma and bereavement.

B. **Evaluation of Effectiveness of Response and Revision of Plan**

1. After an incident or disaster event the overall disaster behavioral health response will be evaluated by members who may have played a significant role in the behavioral health response. The evaluation should result in an assessment of how well the disaster plan, policies and procedures assisted or impeded the response and delivery of services.
2. DBHRT Response Plan will be revised based on these recommendations and lessons learned.
3. DBHRT members will have access to the local Critical Incident Stress Management (CISM) team for debriefing. Debriefing services are voluntary and centered on teaching signs and symptoms for First Responders and will occur within 72 hours of the incident by contacting a member of the Regional CISM team.

Emergency Mental Health Response Committee (EMHRC)

Region 12 *ESC* ***Crisis Response Team*** 254-297-1212 or Jeni Janek- 254-224-7145	CRT – Crisis Response Team that is trained in NOVA *(For strategic and logistical response to crises impacting schools)*
HOTRMHMR Mobile Crisis Outreach Team (MCOT) *24 hour Emergency Hotline* 1- 866-752-3451	Staff trained in mental health and crisis management *(Responds w/in 1 hour (Emergent), 8 hours (Urgent) & provides 48-hour follow up, can also provide 90 days of monitoring if needed for adults & children)*
Klaras Center for Families (KCF) Telawna Kirbie or the Intake Department at 254-752-7889	Provides longer term outpatient mental health services, including specialized trauma treatment, to children 3-18, and can also provide more counselor support if needed at initial crisis.
Heart of Texas Counseling Center (Adults) Elizabeth Timmons or Lindsey Berrier at 254-297-7100	Provides outpatient counseling for adults. (parents, teachers, etc. of affected children)
NAMI Waco Jamie Schmidt-254-349-3939	Provides prevention and awareness education as well as postvention education and referrals. *(Provides education and support to ALL Community: Professionals, Churches, Caregivers and Children)*
	Local Staff trained in Critical Incident Stress Management *(Provides services to first responders: firefighters, police officers & potentially others. Must respond w/in 24/72 hours of incident)*
Waco McLennan County Public Health District Stephanie Alvey-254-652-4575 or 254-750-5411	Medical Reserve Corps - Psychosocial Intervention Team (Provides trained and vetted volunteers to support the mental health response during emergencies.)
Local Law Enforcement/ Victim's Services	Provides on-scene crisis intervention, death notifications, victim education, emotional support, and follow-up.

Heart of Texas Region

Disaster Behavioral Health Response

INITIAL COMMUNITY NEEDS ASSESSMENT

1. What is the nature of the event? (Location, type of event, time of occurrence, and number of people involved in the event, criminal behavior suspected?)

2. What is the estimated number in each category affected by the event?

   ____ Victims
   ____ Family Members
   ____ Responders
   ____ Witnesses

3. Provide the following information (as available):

   Incident Commanders:
   Command Post Location:
   Local EOC Location and Phone #

4. Entities on scene:

   ____ Police ____ Fire _____CISM Team ____ RSN
   ____ EMS _____ Red Cross _____ Salvation Army

   List Others:

5. Are there special needs/vulnerable populations that need to be addressed? If yes, what are the issues and/or concerns?

6. Are there existing BH programs that may have to be relocated? (i.e., residential programs, methadone services)

7. Does the affected community have a recent history of traumatic events? If yes, what are the specifics?

8. Where have shelters been opened?
   Locations:

9. Where have family assistance centers been opened?
   Locations:

10. What other locations are survivors being assisted?
    Locations:

11. Who contacted DBHRT? What specific services were requested?

12. What local BH resources have been requested?

13. Which BH resources are on the scene and available now?

14. Have any BH interventions been provided to-date? If yes, by whom and when?

15. Are the BH needs anticipated to be beyond the capacity of local resources? If yes, what services or resources are anticipated?

Preliminary Findings:

Recommendations:

Completed by:_____

Signature: _____

Heart of Texas Region
Disaster Behavioral Health Response
BRIEFING AND ORIENTATION CHECKLIST

___ **Status of the Disaster** (nature of damage and losses, predicted weather or condition reports, boundaries of impacted area, hazards, response agencies involved)

___ **Orientation to the Impacted Community** (demographics, ethnicity, socioeconomic makeup, history of previous disasters, language requirements, etc.)

___ **Local Community and Disaster-Related Resources** (handouts with brief descriptions and phone numbers of local human services and disaster-related resources. Review resource lists and other materials from Go Kits. Distribute vests.

___ **Logistics** (describe arrangements for team members to be fed, housed (if necessary), receive medical care, receive messages, contact family members, etc.)

___ **Communication** (how, when and what to report to Team Leader; orientation to use of two-way radios.

___ **Transportation** (clarify the mode of transportation to field assignment. If team members are using personal vehicles, provide maps, delineate open and closed routes, and indicate hazard areas. Remind team members to wear badges.

___ **Health and Safety in Disaster Area** (outline potential hazards and safety strategies. Discuss possible sources of injury and injury prevention. Discuss pertinent health issues such as safety of food and drinking water, personal hygiene, communicable disease control and exposure to the elements. Inform of first aid/medical resources in the field.)

___ **Field Assignments** (outline sites where team members will be deployed. Provide description of the setup and organization of the site and name of the person to report to. Provide brief review of appropriate interventions at the site)

___ **Policies and Procedures** (briefly outline policies regarding length of shifts, breaks, staff meetings, required reporting of statistics, etc., Give team members necessary forms and inform them when/ where to return forms)

___ **Self-care and Stress Management** (require the use of the "buddy system" to monitor each other's stress and needs. Remind team members of the importance of regular breaks, good nutrition, positive communication, and appropriate use of humor. Inform team members of the post deployment check-in to be provided at the end of each tour of duty in the field.

Continuity of Operations

The Heart of Texas Emergency Preparedness & Response Healthcare Coalition (HOT EPR/HCC) Continuity of Operations Plan (COOP) provides a mechanism to assist with the implementation of coordinated COOP strategies that initiate activation, relocation, and continuity of operations for partners within TSA M. The HOT EPR/HCC COOP recognizes that a single plan to address the full spectrum of partner healthcare systems throughout the Region, as well as address threats from natural, manmade, and technological sources is unrealistic. Therefore, the HOT EPR/HCC COOP provides a set of guidelines to aide individual partners in their continuity plans as well as lays out a conference bridge flow pattern for how the HOT EPR/HCC will manage continuity of operations in an event large enough to effect the Regional healthcare delivery system.

Orders of Succession:
In the event leadership is incapable of performing authorized duties, organizations have designated successors that enable an individual to serve in the same position as the principal in the event of that principal's death, incapacity, or resignation. Key positions such as Leadership, Operations, Planning, Logistics and Finance have been determined.

Delegation of Authority:
Established Delegations of Authority provide successors the legal authority to act on behalf of the organization for specific purposes and to carry out specific duties. Delegations of Authority will take effect when normal channels of direction are disrupted and will terminate when these channels are reestablished.

A sample table is provided below:

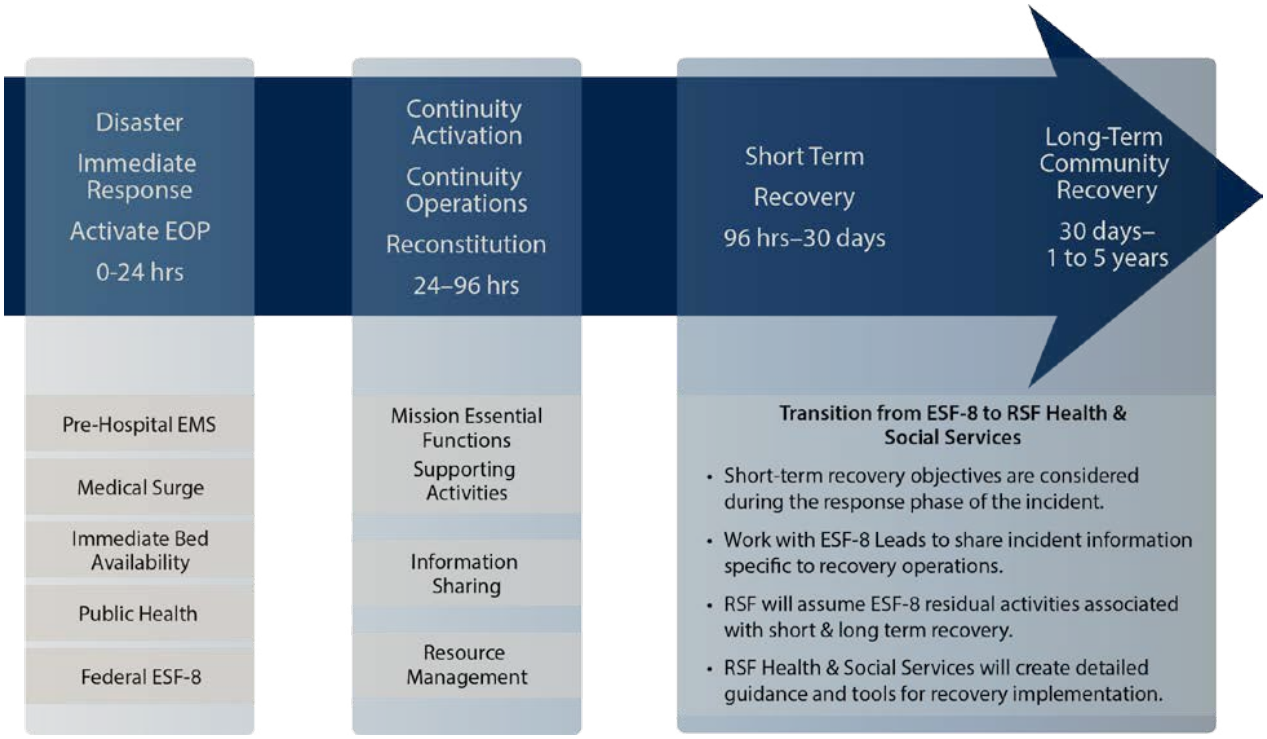
Authority	Type of Authority	Position Holding Authority	Triggering Conditions
Close Facility	Emergency Authority	Senior Leadership	When conditions make coming to or remaining in the facility unsafe
Represent Organization when engaging Govt. Officials	Administrative authority	Senior Leadership	When the pre-identified senior leadership is not available
Activate Organization MOU's	Administrative Authority	Senior Leadership	When the pre-identified senior leadership is not available

Continuity Facilities:
Organizations have identified continuity facilities to conduct business and/or provide clinical care to maintain essential functions when the original property, host facility, or contracted arrangement where the organization conducts operations is unavailable for the duration of the continuity event.

The table below provides pre-arranged alternate locations and telework options.

Continuity Facility	Type of Facility	Location of Facility	Accommodations
Waco-McLennan County Public Health District	Alternate Site	225 Waco Drive Waco, TX 76707	Hot site, identified meeting room with telephones internet access, ham radio access, satellite radio access, two desktop computers, laptop connectivity
County EOC	Alternate Site	One in each County available for consideration.	Warm site, possible meeting room with telephones, internet access, shared ham radio capability, shared satellite phone capability, no desktop computers, laptop connectivity
Home Telework	Devolution Site	Home of staff person	Warm site, telephones, internet access, no ham radio, no satellite phone, desktop computers, laptop connectivity

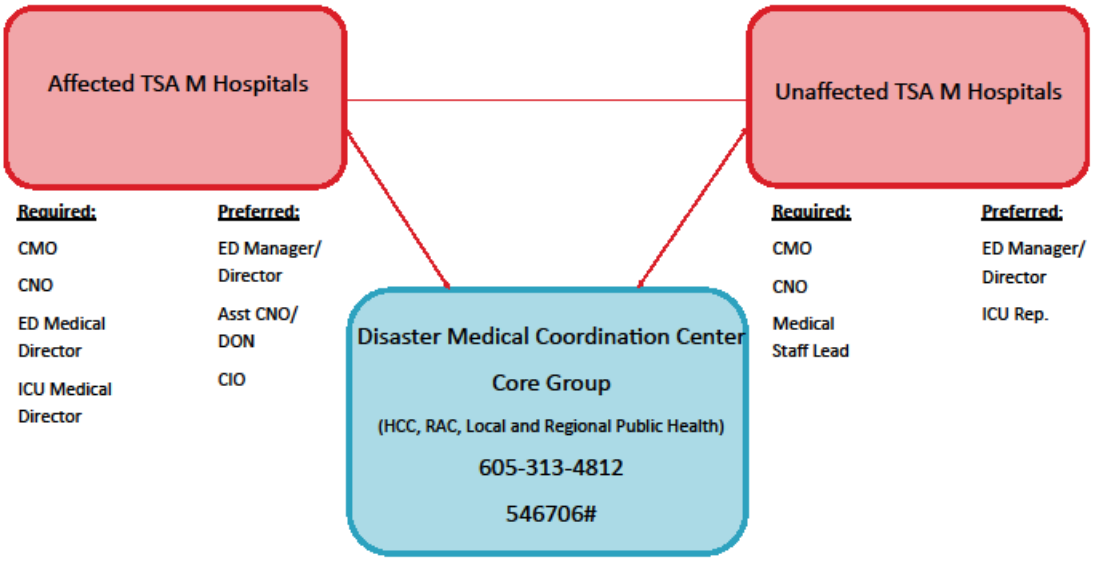
Response to COOP to Recovery Snapshot:



HOT EPRHCC Conference Bridge Flow Pattern:

When planning for continuity of operations at the Regional healthcare system level, an all-hazards planning model is impractical. Because of healthcare systems' multifaceted nature, compounded with an unknown disaster scope, HOT EPR/HCC has opted for a conference bridge style COOP. In the event a situation arises that is complex enough for Regional coordination of operation and recovery to be established, Chief Operations Officers, Chief Financial Officers and Chief Executive Officers from Trauma Service Area M

hospitals will convene via telephone conference, in person, or other appropriate modalities, to create an incident specific plan of action.



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 an 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. Since all the facilities 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. Facilities 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 biohazard 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.

Public Health Request

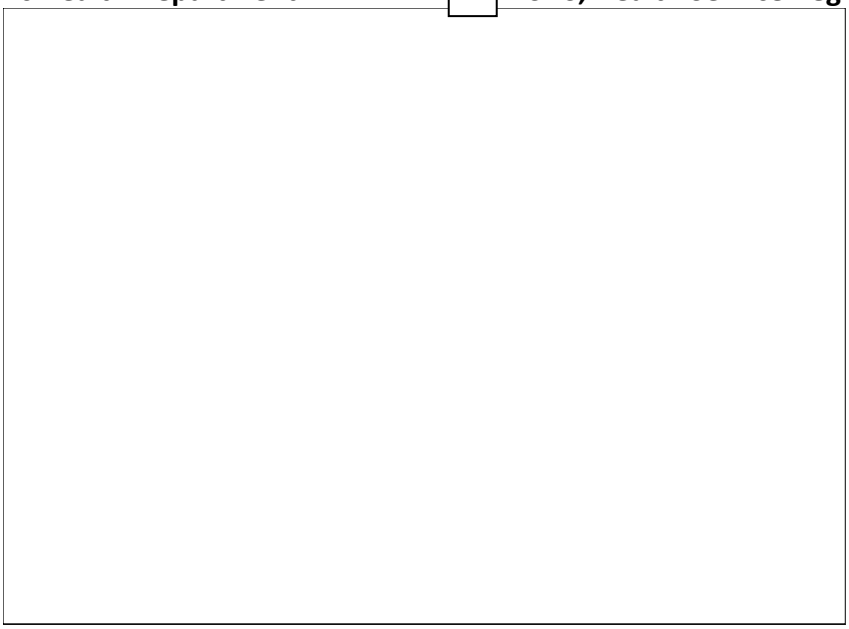
Public Health officials may notify local designated EMS agency of the need for transport in the case of individuals that are unable to transport themselves to the facility, including those:

- 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 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 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. Always monitor the patient care area, 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 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 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 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 in Protective 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 like 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. 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, 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 always on-site 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 meet the Ebola patient (i.e., avoid short shifts), and restrict non-essential personnel and visitors from the patient care area.

xii. Always monitor the patient care area, 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 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. Laboratory Testing – In-House Clinical-based
A. Healthcare providers are directed to contact local/regional Public Health 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 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 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, doorknobs, 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 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 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 must include all the following:
    1) General awareness
    2) Function-specific training
    3) Safety
    4) Security awareness training
    5) Modal-specific training, such as driver training