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Speaker Bios: <https://asprtracie.s3.amazonaws.com/documents/tracie-netec-regional-transport-webinar-speaker-bios.pdf>

Video Laryngoscopy: <https://youtu.be/bB3kLUQ8PZo>



TRACIE

HEALTHCARE EMERGENCY PREPAREDNESS
INFORMATION GATEWAY

Highly Pathogenic Infectious Disease Exercise Planning for Regional Transport

August 23, 2017

ASPR TRACIE: Three Domains



- Self-service collection of audience-tailored materials
- Subject-specific, SME-reviewed “Topic Collections”
- Unpublished and SME peer-reviewed materials highlighting real-life tools and experiences



- Personalized support and responses to requests for information and technical assistance
- Accessible by toll-free number, email, or web form



- Promotes password-protected discussion among vetted users in near real-time
- Able to support chats and the peer-to-peer exchange of user-developed templates, plans, and other materials

[ASPRtracie.hhs.gov](https://asprtracie.hhs.gov)

Highlighted ASPR TRACIE Resources

- TRACIE-developed Technical Resources
 - EMS Infectious Disease Playbook
 - Ebola/VHF Topic Collection
- Newsletter and announcements distribution list
- Assistance Center and Information Exchange



NETEC



EMORY
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Bellevue

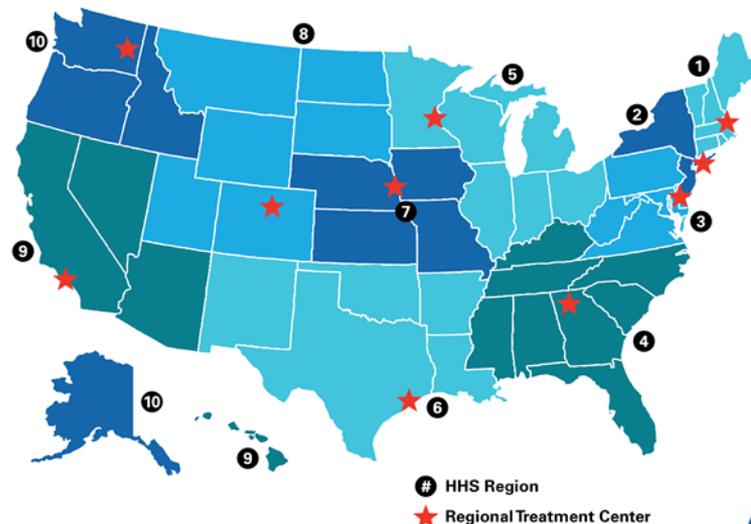
National Ebola Training and Education Center (NETEC)

Mission: To increase the capability of United States public health and health care systems to safely and effectively manage individuals with suspected and confirmed special pathogens

For more information, visit www.netec.org
or email us at info@netec.org

Role of NETEC

- Through the 5 year project period and in collaboration with ASPR, CDC and other stakeholders, the NETEC will:
 - Create readiness metrics.
 - Conduct peer review readiness assessments of regional and state ETCs as well as assessment centers as requested by state health departments.



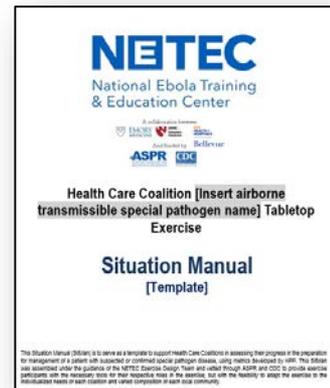
Regional Treatment Centers

- 1: Massachusetts General Hospital
- 2: NYC Health + Hospitals - Bellevue
- 3: Johns Hopkins Hospital
- 4: Emory University Hospital and Children's Healthcare of Atlanta-Egleston Hospital
- 5: University of Minnesota Medical Center
- 6: University of Texas Medical Branch at Galveston
- 7: University of Nebraska Medical Center/ Nebraska Medicine
- 8: Denver Health Medical Center
- 9: Cedars-Sinai
- 10: Providence Sacred Heart Medical Center and Children's Hospital

Role of NETEC (continued)



- Create, conduct, and maintain a comprehensive suite of onsite and online education courses and helpful resources and tools.
- Develop a repository for education resources, announcements, links to key information, exercise templates at www.netec.org
- Provide technical assistance to public health departments and healthcare facilities.
- Create a research infrastructure across the 10 regional ETCs.





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Richard Hunt, MD

**Senior Medical Advisor, Division of National Healthcare
Preparedness Programs**

Welcome Message and Webinar Purpose

- The management of patients with highly pathogenic infectious diseases is based on the regional, tiered approach set forth by ASPR for Ebola.
- The transport of patients to and between facilities in a region is a critical component of that approach.

Learning Objectives

- Participants will:
 - Learn about exercise templates – specifically tailored for regional transport – to test readiness for highly pathogenic infectious patients.
 - Understand how exercises support ASPR's regional, tiered approach.
 - Hear tips from three jurisdictions on how to exercise plans.



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Nicholas V. Cagliuso, Sr., PhD, MPH
Assistant Vice President, Emergency Management
New York City Health + Hospitals

NETEC Exercise Resources

6 end-users

- Frontline Facilities
- Assessment Hospitals
- State-Designated ETCs
- Regional Ebola and Special Pathogen Treatment Centers (RESPTCs)
- Healthcare Coalitions
- Regional Transport Plan

2 exercise types

- Discussion-based
- Operations-based

2 exercise options

- Ebola
- Other Special Pathogens (airborne)

NETEC Exercise Templates

- Built-in injects throughout for further food-for-thought
- Based on HSEEP model:
 - Situation Manual/Exercise Plan
 - How to Use This Template
 - Exercise Schedule
 - Relevant Plans
 - After Action Report
 - Improvement Plan
 - Participant Feedback Form and more

Appendix A: Exercise Schedule

Suggested Time	Activity
Varies	Facilitator/Evaluator Briefing and Registration
20 – 30 minutes	Welcome and Introductory Briefing <ul style="list-style-type: none"> • Participant Introductions (Players, Facilitator(s), Evaluators, Observers) • Exercise Overview <ul style="list-style-type: none"> – Agenda – Guidelines – Assumptions and Artificialities – Evaluation
45 minutes	Exercise 1: Unit Activation, Transport and Patient Care for [Stable or Critical] [insert airborne transmissible disease name] Patient <ul style="list-style-type: none"> • Module 1 • Module 2 • Module 3
45 minutes	Exercise 2: Admit a Walk-in Patient from State-Designated Ebola Treatment Center's Emergency Department (ED) <ul style="list-style-type: none"> • Module 1 • Module 2
120 minutes	Exercise 3: Planning for Special Considerations for State-Designated Ebola Treatment Center <ul style="list-style-type: none"> • Module 1

Improvement Plan

This IP has been developed specifically for [Organization or Jurisdiction] as a result of [Exercise Name] conducted on [Date of exercise].

Target Capability	Issue/Area for Improvement	Corrective Action	Capability Element ²	Primary Responsible Organization	Organization POC	Start Date	Completion Date
Target Capability 1 (Capability Name)	1. [Area for Improvement]	[Corrective Action 1]					
		[Corrective Action 2]					
		[Corrective Action 3]					

Exercise Overview

Exercise Name	[Insert the formal name of exercise, which should match the name in the document header]
Exercise Date	[Month/Day, Year]
Scope	This exercise is a [exercise type], planned for [exercise duration] at [exercise location]. Exercise play is limited to [exercise parameters].
Mission Area(s)	[Prevention, Protection, Mitigation, Response, and/or Recovery]
Target Capabilities	Foundation for Health Care and Medical Readiness, Health Care and Medical Response Coordination, Continuity of Health Care Service Delivery, and Medical Surge. [List any other applicable target capabilities being exercised]
Objectives	<ol style="list-style-type: none"> 1. Evaluate the Concept of Operations for the Assessment Hospital's ability to safely and effectively receive a person under investigation (PUI) for [insert airborne transmissible disease name] within an appropriate time frame and provide up to 96 hours of evaluation and care to PUI until the diagnosis is either confirmed or ruled out and until discharge or transfer is completed. 2. Examine the Assessment Hospital's ability to coordinate transportation arrangements and safely and effectively transport a patient with confirmed [insert airborne transmissible disease name] to Regional Ebola and Other Special Pathogen Treatment Center within an appropriate time frame. 3. Assess the notification and communication processes internally with rostered staff and externally between local, state, and federal public health, EMS, and other healthcare delivery system partners, Assessment Hospitals, State Designated Ebola Treatment Centers, and the Regional Ebola and Other Special Pathogen Treatment Center, as well as media management. 4. Examine EMS capabilities, and determine the most appropriate method for transportation (e.g., air versus ground) <ul style="list-style-type: none"> • Discuss management of [stable or critical] patient or PUI transported by ground EMS personnel • Discuss the management of patient undergoing air transportation and coordination with ground EMS personnel for [stable or critical] patient or PUI 5. Assess just-in-time PPE don/doff training resources and PPE availability for EMS, and healthcare delivery system personnel, including those at the Assessment Facility. 6. Assess planning for special considerations (e.g., surge capacity, diagnostic/radiological imaging, laboratory services, pediatric patient, waste management and decedent management.) 7. [List any additional exercise objectives]

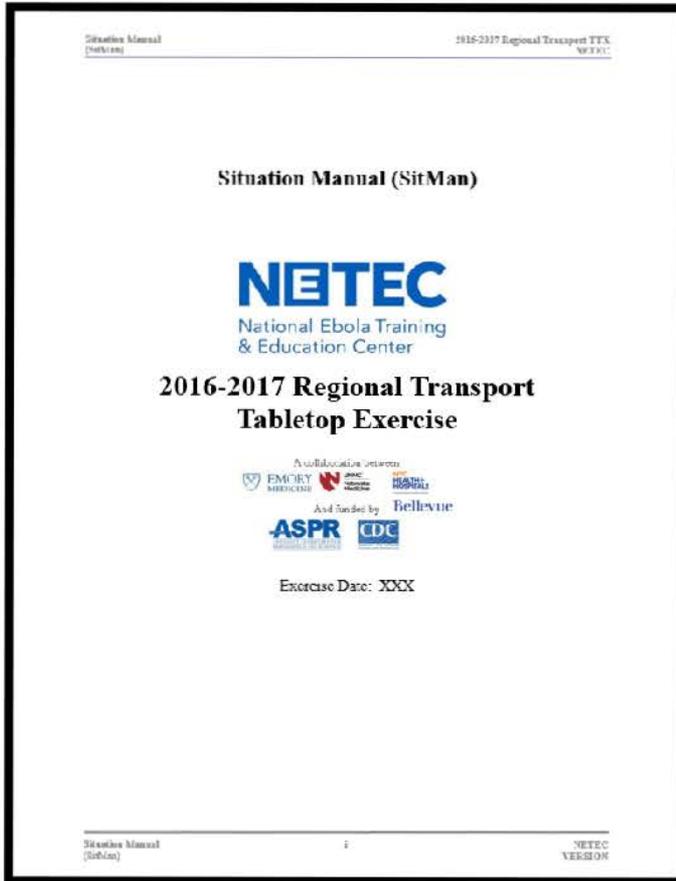


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Syra S. Madad, DHSc, MSc, MCP
Director, System-wide Special Pathogens Program
New York City Health + Hospitals

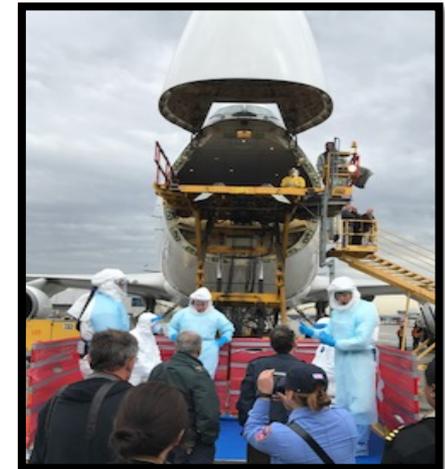
Regional Transport Plan



Regional Transport Plan: Ebola

Exercise Template Structure

- Exercise 1: High Patient Acuity “wet patient”
 - **Module 1:** Plan Activation
 - **Module 2:** Ground Transport
 - **Module 3:** Air Patient Transport
- Exercise 2: Low Patient Acuity “dry patient”
 - **Module 1:** Ground Transport
 - **Module 2:** Air Patient Transport
 - **Module 3:** Decontamination After Patient Transport



Regional Transport Plan: **Ebola**

Exercise Template Structure

- Special Considerations:
 - **Special Consideration 1:**
Patient decompensation en route to RESPTC
 - **Special Consideration 2:**
Pediatric patient transfer



Regional Transport Plan: **Special Pathogen** Exercise Template Structure

- Exercise 1: Regional Transport Plan Activation, Coordination and Transport of [Stable Patient or Critical Patient] with [suspected or confirmed] [insert airborne transmissible disease name]
 - **Module 1:** Plan Activation and Coordination following Notification of [suspected or confirmed] [insert airborne transmissible disease name] Patient
 - **Module 2:** Ground Patient Transport
 - **Module 3:** Air Patient Transport
 - **Module 4:** Decontamination after Patient Transport

Regional Transport Plan: **Special Pathogen** Exercise Template Structure

- Special Considerations:
 - **Special Consideration 1:** Patient decompensation en route to Receiving Hospital
 - **Special Consideration 2:** Pediatric Patient Transfer
 - **Special Consideration 3:** Multiple Patient Transfer
- Inject:
 - Media Management



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Brian T. Garibaldi, MD

Director, Johns Hopkins Biocontainment Unit

Shawn Brast, MSN, RN, NRP

Team Educator, Johns Hopkins LIFELINE

Johns Hopkins Hospital (JHH)

- Dedicated EMS transport service (LIFELINE) with a Special Operations Response Team (SORTeam)
- 5 large scale transport drills
- Large international population with 2 major airports



Mobility Solace



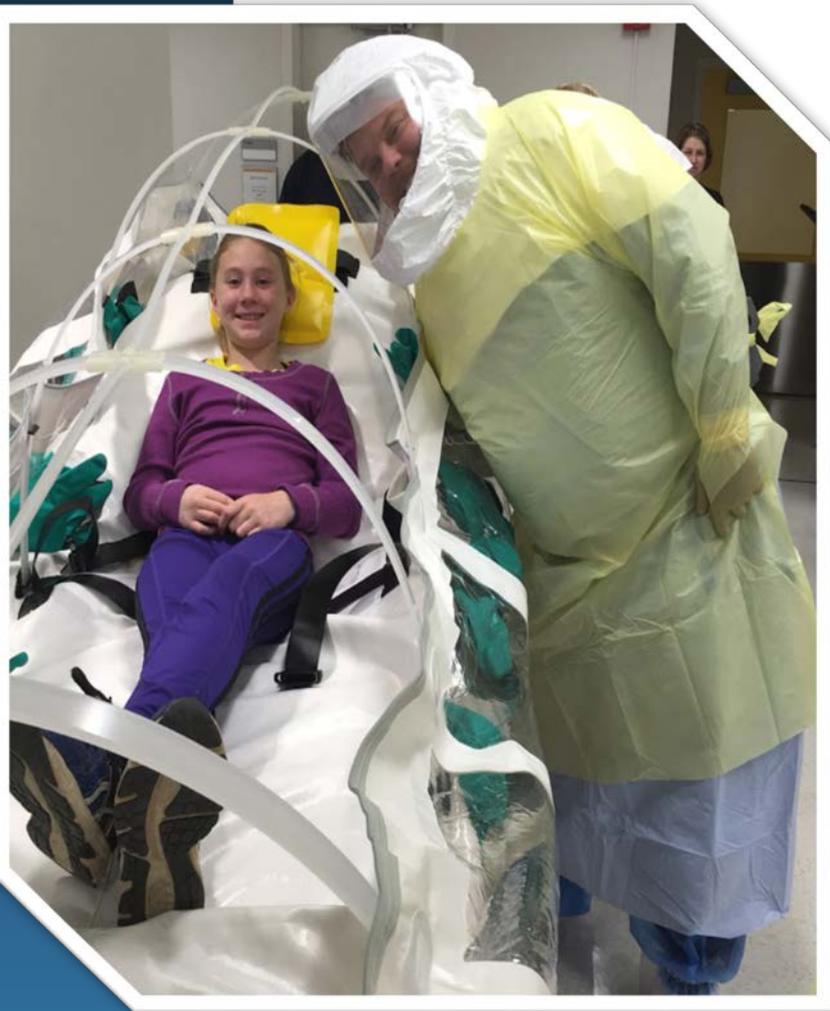
Tranquil Shift

Multiple Patient Considerations



- How do you structure your response to maximize resources, communications and operational support?
- What is the right number of resources?
- Did you factor in emergency action plans?

Pediatric Patients



- SORTeam with pediatric transport experience
- Engagement of Child Life Services at JHH
- Piloting communication tools and educational materials for EMS providers and families

Decompensating Patients

- Preplanning at referring facility is critical!
- Communicated plan of care has downstream implications.
- Look for opportunities for secondary gain when applying resources to the transport of a patient with highly infectious disease (HID) - sustainability for all hazards, e.g., video laryngoscopy now available in all LIFELINE ambulances (see link to video on cover slide)





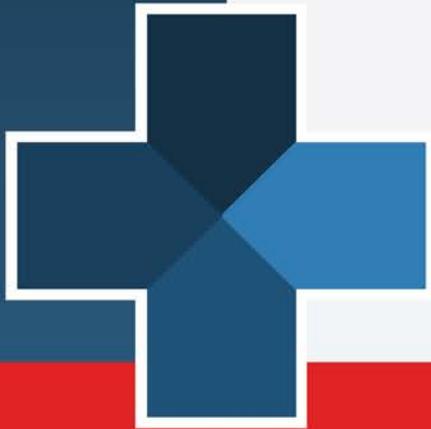
Exercise Pearls

- Have a representative from the transport team onsite in the Incident Command Center
- Make sure transport teams are familiar with handoff areas and local facility protocols
- **Take advantage of HID training and preparation to enhance all-hazards preparedness!**



Exercise Pitfalls

- HID transport is resource intensive and requires multiple redundancies in personnel and equipment
- Accepting multiple patients at the same time is stressful and potentially higher risk for staff and patients



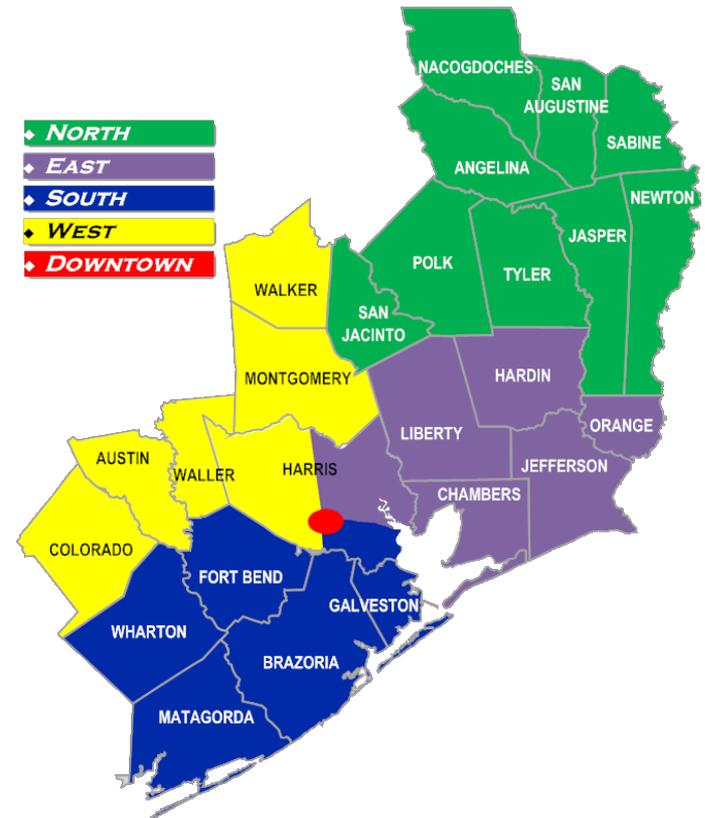
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Lori Upton, RN, BSN, MS, CEM
Director, Regional Preparedness and Operations
SouthEast Texas Regional Advisory Council

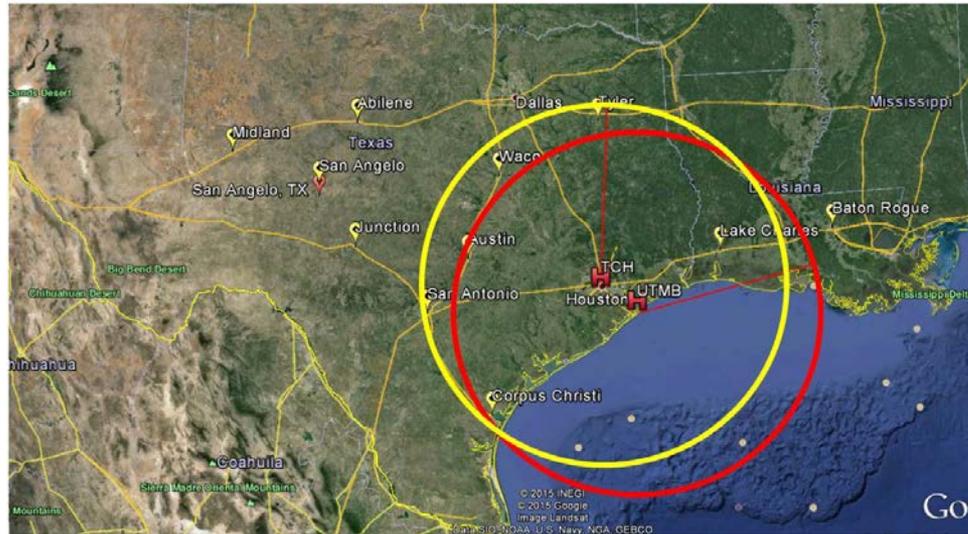
Primary Region

- 25 Counties - 277 cities
- 9.3 Million* (36%)
- 877,000/disabilities* (24%)
- 180 hospitals
- 900+ nursing homes



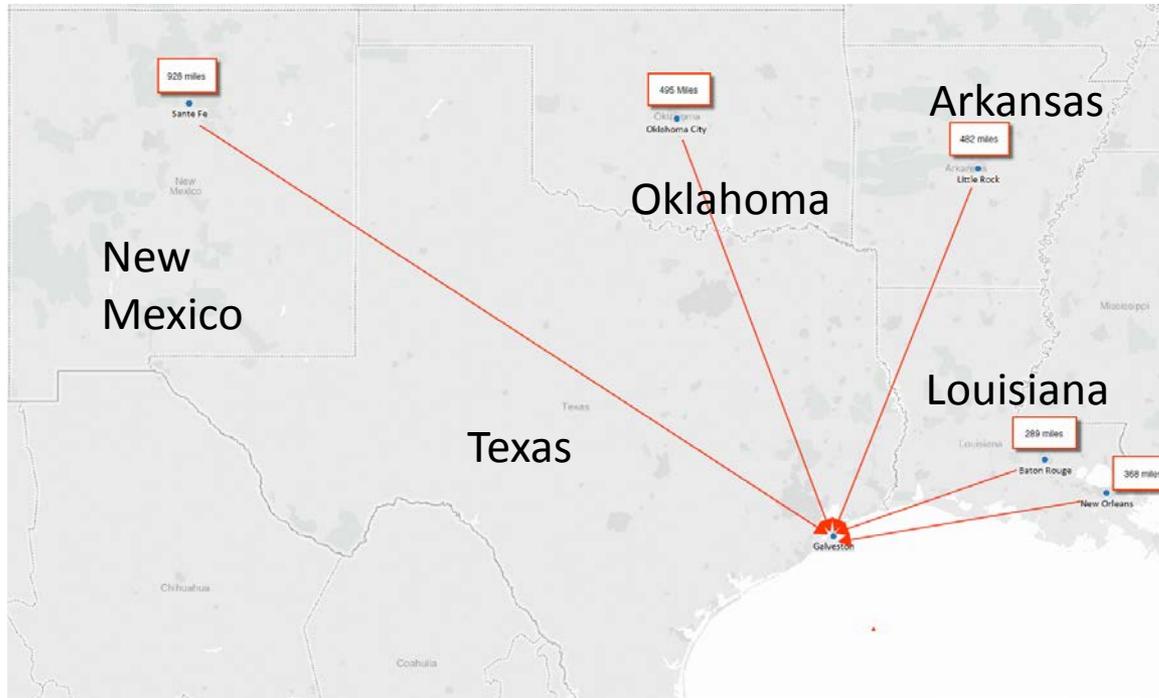
Secondary Region

- State of Texas – Outside 200 mile radius



Tertiary Region

- Texas, Arkansas, Louisiana, Oklahoma, New Mexico (TALON) States – FEMA Region 6



Regional Ebola and Highly Infectious Patient Transport Plan

- Regional approach for emergency medical services, public health, and healthcare to respond in a coordinated fashion during an Ebola outbreak or other highly infectious disease.
- The Plan serves as an annex to the existing Catastrophic Medical Operations Center Basic Plan.
- Details specific objectives, related tasks, and agency/organization roles and responsibilities.

Ground Transport

- Only PCR confirmed patients
- Department of Public Safety (DPS) Trooper front and back – lights, no siren
- Ambulance with patient
- Back-up ambulance (wrapped and ready)
- EMS Supervisor
- Designated TAC channels
- Pre-identified communication progress points



Air Transport

- Ellington Airport
 - Civilian and Military Sectors
- Outside 200 mile primary region
- Coordination with Phoenix Aviation Group (PAG)/Ellington/Regional Ebola Transport Ambulance (RETA) for flight times/arrivals
- Ground Transport Protocols following hand-off

Transport and Hand-off



Decon and Waste Removal

- Designated decon area for RETA crew and ambulance
- EMS Supervisor provides guidance and oversight of crew
- Waste bagged and disposed by Regional Ebola Treatment Center (RETC)
- Associated costs under State Mission Assignment



Regional Requirements

- Agencies and Agency Staff are all pre-identified (Core Teams)
- Specially Trained and Equipped
- MOA currently in effect with Lead RAC
- Standardized Equipment
- Standardized Training
 - RETA Plan
 - Deployment Protocols
 - Donning/Doffing Procedures
 - Transport Process
 - Decon/Demob



Responding Goals

- Identify and mitigate risk
- Appropriate PPE use
- Minimize extent & number of patient contacts
- Patient Treatment modifications
- No non-essential persons or escorts on board
- Protect the environment and staff



Modify Care

- “Routine Care” per accepted practice
- Limit or Avoid
 - Invasive Procedures
 - Sharps
 - Exposure To Body Fluids or Secretions



Full Scale Exercises

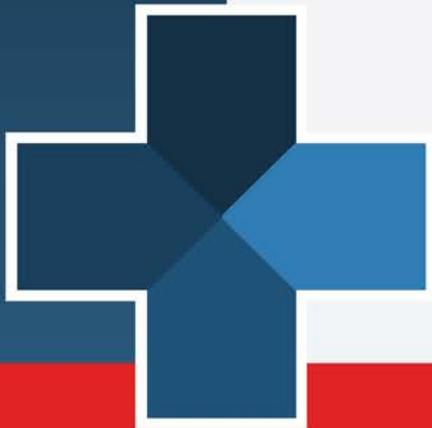
February 2015



December 2015

Exercise Pearls + Pitfalls

- Early notification and communication
- Liaison at Assessment and ETC
- Standardize PPE and equipment
- Specially trained and equipped Core Teams
- Empty fluid containers PRIOR to transport
- Absorbent non-slip pad
- Shore up your EMS waste and decon plan



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Wendy Pagan, BBA, CHEC

Training Officer, Southern Nevada Health District

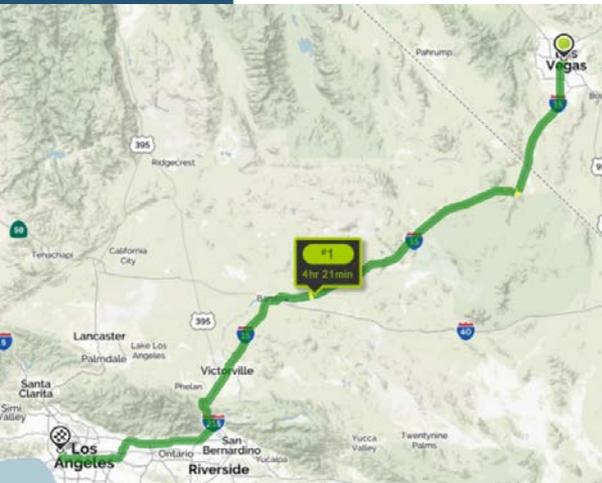
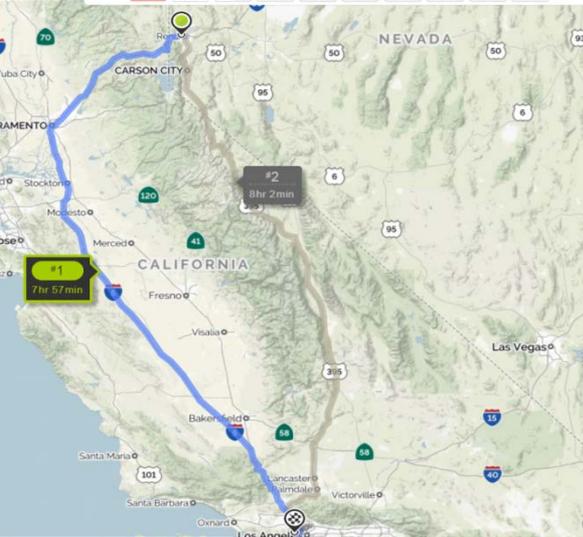
Andrea Esp, MPH, CPH, CHES

PHERC, Washoe County Health District/Inter-Hospital

Coordinating Council

Nevada

- ~110,000 square miles
- ~2.9 million citizens
- ~53 million tourists
- 445 miles between Reno & Las Vegas
 - 8 hour drive
- 17 counties
 - 19 municipal governments
- 4 military installations
- Sierra Nevada Mountain Range
- >200 miles to ETC = Air Medical Transport



Nevada Planning Committees

North

- Inter-Hospital Coordinating Council (IHCC)
- Nevada Division of Public and Behavioral Health
- Nevada State Public Health Laboratory
- REMSA
- Reno Police Department
- Renown Regional Medical Center (RRMC)
- Renown South Meadows Medical Center
- Tahoe Pacific Hospital
- Saint Mary's Regional Medical Center
- VA Sierra Nevada Health Care System
- Washoe County Emergency Management
- Washoe County Health District

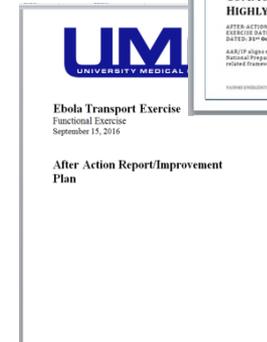
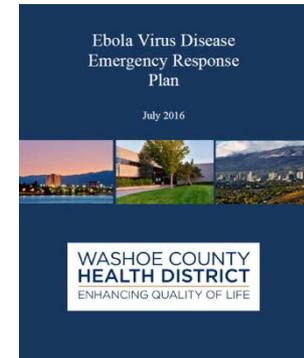
South

- Nevada Division of Public and Behavioral Health
- Southern Nevada Health District
- Southern Nevada Public Health Laboratory
- Southern Nevada Healthcare Preparedness Coalition (SNHPC)
- Jurisdictional Emergency Management
 - Clark County OEM
 - City Of North Las Vegas OEM
 - City of Las Vegas OEM
 - City of Henderson OEM
- Fire Haz Mat Team/EMS
- Law Enforcement
- McCarran International Airport
- Southern Nevada Hospital Systems



Transport Exercises/Real-World Events

- Real-world event: July 2015
 - Active Monitoring – Residential to assessment hospital
- Real-world event: July 2016
 - Frontline facility to assessment hospital
- Full-scale: June 2016
 - VA Clinic to assessment hospital to airport
- Full-scale: September 2016
 - Assessment hospital to airport
 - VA Clinic to assessment hospital
- Full-scale: July 2017
 - Urgent care to assessment hospital



Exercise Pearls

- Unannounced drills/real world events provided best identified gaps and baseline evaluation data
- Effective multi agency coordination during jurisdictional conference call
- Effective execution of Hospital/EMS “patient packaging” including secure escorted movement through facility to staged ambulance
- Effective execution of expedient patient transport to include pre-planned traffic route from Assessment Hospital to designated airfield
 - Timed at 16 minutes without Law Enforcement escort
- Effective execution of established EMS protocol for ambulance decontamination
- Evaluation and observation from State Infectious Disease Readiness Assessment (IDRA) Team and ASPR HPP FEMA Region 9 staff



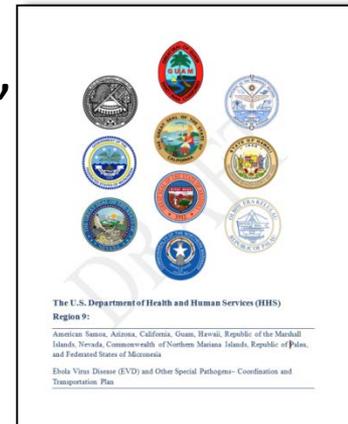
Exercise Pitfalls

- Absence of formalized Region 9 EVD and Other Special Pathogens – Coordination and Transportation Plan (Draft June 2017)
- Absence of signed agreements between Nevada and RETC (Future activity)
- PPE protocol still shows need for increased training frequency to assure hospital and EMS competency; increased duration in fully donned PPE
 - IsoPod
 - Development of a setup checklist
 - Difficulties communicating with patient
- Gap in communication for patient exchange location at Assessment Hospital, requiring re-route to staging area



Exercise Pitfalls (continued)

- Confusion on which local agency has authority to determine the appropriate Assessment Hospital to receive patient
- Regional Transport exercise was focused on patient movement to airfield only due to lack of coordinated communications between Federal, State, Local, and healthcare system partners
- Special Considerations
 - Need to test pediatric, multiple and decompensating patient(s)
 - Unknown federal resources to support local agencies caring for decompensating patients that cannot be transported
- **All Improvement Items were completed!**



NETEC Exercise Resources



- NETEC offers exercise support via:
 - Remote technical assistance
 - On-site technical assistance

Walk-through of NETEC Transport Plan Exercise Template

The screenshot displays the NETEC website interface. At the top, a blue navigation bar contains the NETEC logo on the left and menu items: ABOUT, TECHNICAL RESOURCES (with a dropdown arrow), EDUCATION AND TRAINING (with a dropdown arrow), and NEWS (with a search icon). The dropdown menu for TECHNICAL RESOURCES is open, showing options: Resources / Repository, Request a Site Visit, Exercises (highlighted with a red oval), and Have a question?.

The main content area is white and features two sections:

- Health Care Coalitions**
 - Exercise Materials for Ebola
 - Ebola Tabletop Exercise Template
 - Exercise Materials for Special Pathogens
 - Special Pathogen [Airborne] Tabletop Exercise Template
- Regional Transport Plan** (indicated by a red arrow pointing to it)
 - Exercise Materials for Ebola
 - Ebola Tabletop Exercise Template
 - Exercise Materials for Special Pathogens
 - Special Pathogen [Airborne] Tabletop Exercise Template

The footer is a dark blue section. It includes the text "A COLLABORATION BETWEEN" followed by logos for Emory Medicine, UNMC Nebraska Medicine, NYC Health+ Hospitals, and Bellevue. To the right, it says "FUNDED BY" followed by logos for ASPR and CDC. Below this, there is the NETEC logo, the text "Stay Connected with NETEC", and social media icons for Facebook, Twitter, and Instagram. A "SUBSCRIBE" button is highlighted with a red oval. At the bottom left, there is a small copyright notice: "Copyright 2017 | All Rights Reserved".



Question and Answer Logistics

- To ask a question
 - Type the question into the chat feature on your GoToWebinar console.
 - We will collect all questions and ask them on your behalf.



Questions and Answers



For Additional Support

- Contact National Ebola Training and Education Center (netec.org)



- Contact your NHPP Field Project Officers
- Contact ASPR TRACIE



[ASPRtracie.hhs.gov](https://asprtracie.hhs.gov)



1-844-5-TRACIE



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