



# NETEC



EMORY  
MEDICINE



UNMC  
Nebraska  
Medicine

NYC  
HEALTH+  
HOSPITALS

Bellevue

# Emergency Management Track

Presenters:

Nicholas V. Cagliuso, Sr., PhD, MPH

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Shelly Schwedhelm, MSN, RN, NEA-BC

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1

Introduction to All-Hazards Emergency Management and Healthcare Incident Command System (HICS)

2

Introduction to Homeland Security Exercise and Evaluation Program (HSEEP) and developing a discussion- and operations based special pathogen exercise

3

Exercise Workshop (Participants Grouped by HHS Region)

Describe

Describe the purpose and components of an all-hazards emergency management and health care incident command system

Describe

Describe the purpose and components of a comprehensive, discussion- and operations-based exercise and evaluation process and program based on the HSEEP model

Apply

Apply the basics of exercise design to develop a special pathogen exercise using NETEC exercise resources and ASPR performance metrics



# Introduction to All-Hazards Emergency Management and Healthcare Incident Command System (HICS)

Presenters:

Nicholas V. Cagliuso, Sr., PhD, MPH

Shelly Schwedhelm, MSN, RN, NEA-BC

## Agenda

1. All-Hazards Emergency Management
2. The 3 Cs
3. Hospital Incident Command System (HICS)
  - Command & General Staff
4. The Ebola Preparedness & Response Paradox
5. Readiness Strategies
  - Leadership
  - Training, Education & Exercises
  - Community Outreach
6. Lessons Learned

Describe

Describe the “all-hazards” approach to managing the care of highly infectious disease (HID) patients

Describe

Describe the use of the Hospital Incident Command System (HICS) in the care of HID patients

Describe

Describe the key elements of sustaining readiness to care for HID patients

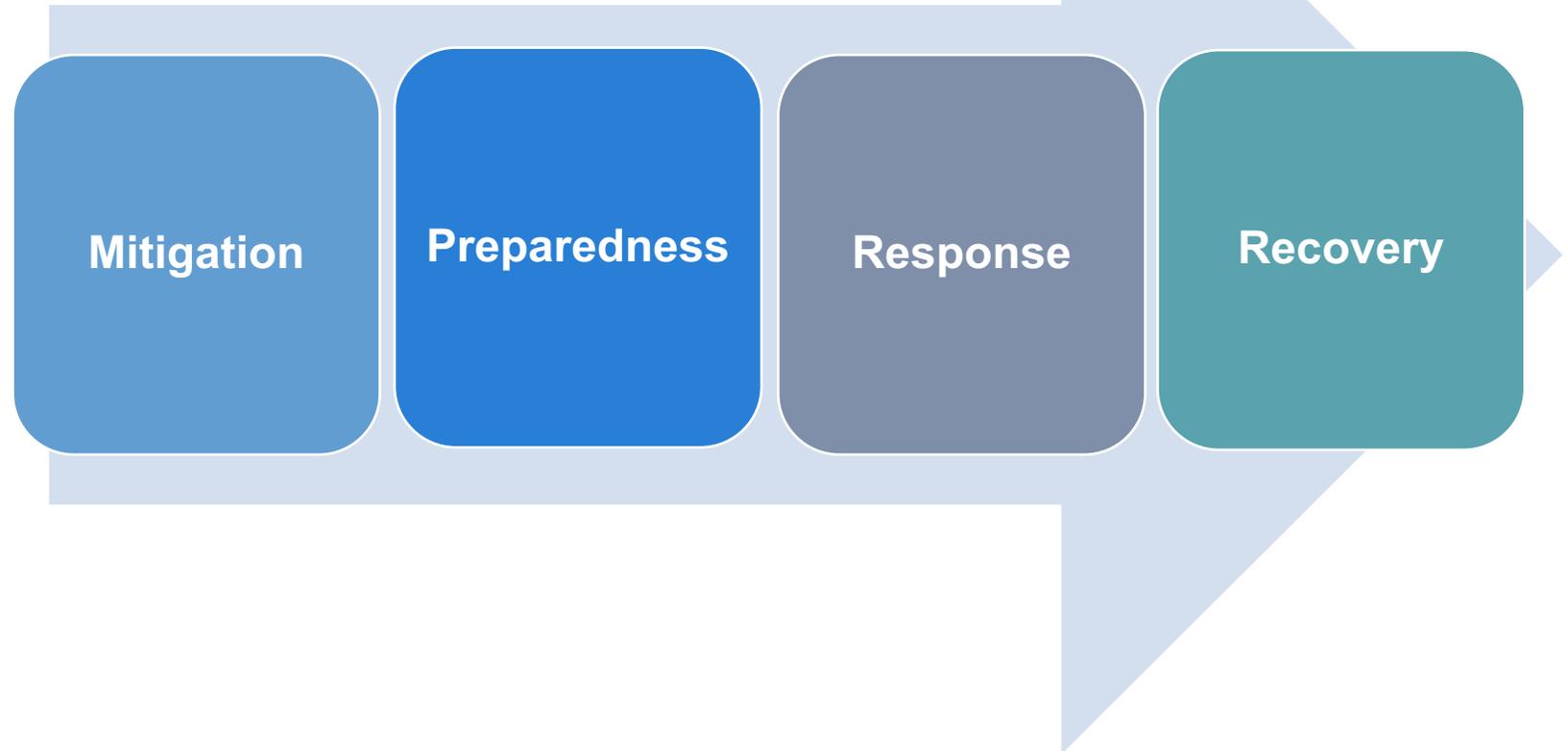
Describe

Describe the next steps in building national resilience for safely and effectively managing an influx of HID patients

**Natural**  
(weather)

**Technological**  
(power outage)

**Intentional**  
(terrorism)



Systematic approach to recognizing hazards that may affect hospital services or its ability to provide those services.



Risks associated with each hazard are analyzed to prioritize planning, mitigation, response and recovery activities.



Hazards - Sample Hospital  
 Hazard and Vulnerability Assessment Tool  
 Naturally Occurring Events

Event	PROBABILITY Likelihood this will occur	ALERTS	ACTIVATIONS	SEVERITY = ( MAGNITUDE - MITIGATION )						RISK * Relative threat
				HUMAN IMPACT	PROPERTY IMPACT	BUSINESS IMPACT	PREPARED-NESS	INTERNAL RESPONSE	EXTERNAL RESPONSE	
				Possibility of death or injury	Physical losses and damages	Interruption of services	Preplanning	Time, effectiveness, resources	Community/Mutual Aid staff and supplies	
SCORE	0 = N/A 1 = Low 2 = Moderate 3 = High	Number of Alerts	Number of Activations	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = High 2 = Moderate 3 = Low	0 = N/A 1 = High 2 = Moderate 3 = Low	0 = N/A 1 = High 2 = Moderate 3 = Low	0 - 100%
Earthquake										
Epidemic										
Evacuation										
Explosion	2	1	1	3	3	3	2	2	1	48%
External Flood										
Fire										
Hostage Situation										
Hurricane										
HVAC Failure										
Inclement Weather	2	1	1	2	2	2	2	2	2,3	38%
Infectious Disease Outbreak	2	1	2	3	1	2	2	2		42%
Internal Fire										
Internal Flood										
IT System Outage	2	1	1	1	1	2	2	2	4	32%
Landslide										
Water Disruption										
Weapon										
Workplace Violence / Threat										
Zombies										

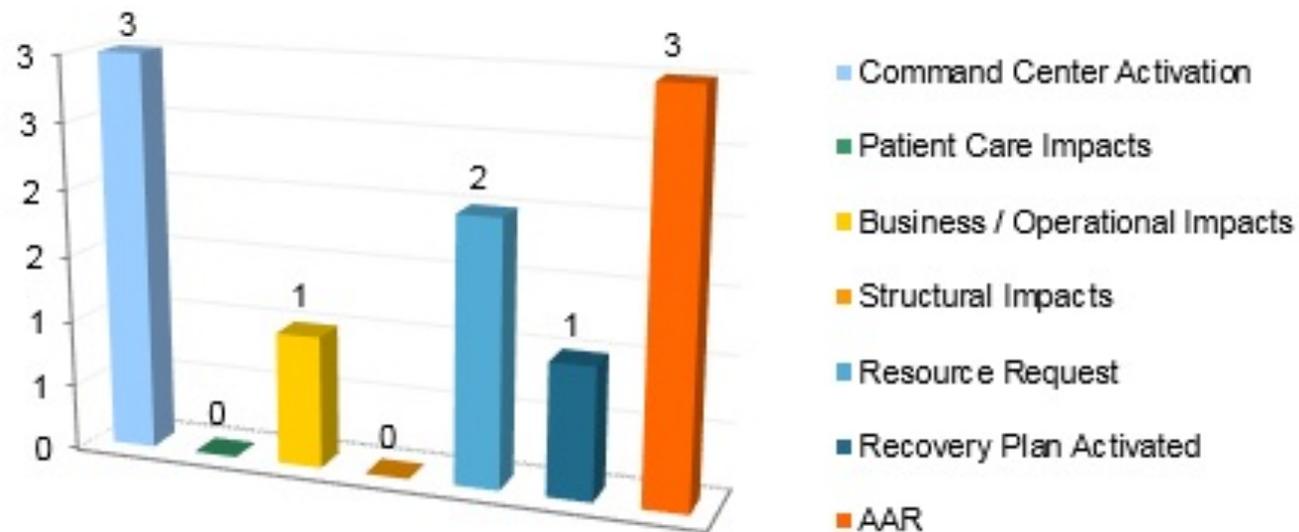


# Kaiser Permanente

## Emergency Management

### Summary For - Sample Hospital

ALERT TYPE	OCCURRENCE
Command Center Activation	3
Patient Care Impacts	0
Business / Operational Impacts	1
Structural Impacts	0
Resource Request	2
Recovery Plan Activated	1
AAR	3
<b>Total Alert</b>	<b>3</b>



0

TOP 10 HVA	RANK	OCCURRENCE
Explosion	1	1
Infectious Disease Outbreak	2	0
Inclement Weather	3	1
IT System Outage	4	1

0

TOP 10 ACTUAL ALERTS	OCCURRENCE	HVA RANK
Inclement Weather	1	3
IT System Outage	1	4
Explosion	1	1

Communication

Coordination

Collaboration



**For Release:**  
September 4, 2014

**Contact:**  
Taylor Wilson (402) 871-8338  
[twilson@nebraskamed.com](mailto:twilson@nebraskamed.com)

## **Possible Transport of Ebola Patient to The Nebraska Biocontainment Patient Care Unit Located Inside The Nebraska Medical Center**

*Biocontainment Leaders to Discuss Latest Developments*

Omaha, Neb – Please join us as infectious disease specialists and officials from our Biocontainment Unit discuss the possibility of an American patient with the Ebola virus being brought to The Nebraska Medical Center for treatment.

**WHAT:** News conference regarding possible treatment of patient with Ebola virus

**WHEN:** Thursday, September 4, 4:15 p.m.

**WHERE:** Truhlsen Eye Institute, 3902 Leavenworth St., Omaha, NE, park on east side of 40<sup>th</sup> St. on hill leading to area where road is closed. Enter front of Truhlsen, take elevator to 3<sup>rd</sup> floor room 3001 Bruce Truhlsen Auditorium

**OTHER:** If you plan to attend please contact Taylor Wilson at [twilson@nebraskamed.com](mailto:twilson@nebraskamed.com) or (402) 871-8338

UNIVERSITY OF  
**Nebraska**  
Medical Center

 **THE NEBRASKA**  
MEDICAL CENTER™

**EMORY**  
HEALTHCARE

1364 Clifton Road, NE  
Atlanta, GA 30322

Dear Emory University Hospital Patients,

You may hear in the media that Emory University Hospital plans to receive a patient with Ebola virus infection in the next several days. We do not know at this time when the patient will arrive. Please be assured that our hospital is prepared and ready. We have a highly specialized, isolated unit in the hospital that was set up in collaboration with the CDC to treat patients who are exposed to certain serious infectious diseases. This unit is physically separate from other patient areas and has unique equipment and infrastructure that provide an extraordinarily high level of clinical isolation. In fact, Emory University Hospital is one of just four facilities in the entire country with such a specialized unit.

Emory University Hospital physicians, nurses and staff are highly trained in the specific and unique protocols and procedures necessary to treat and care for this type of patient. For this specially trained staff, these procedures are practiced on a regular basis throughout the year, so we are fully prepared for this type of situation.

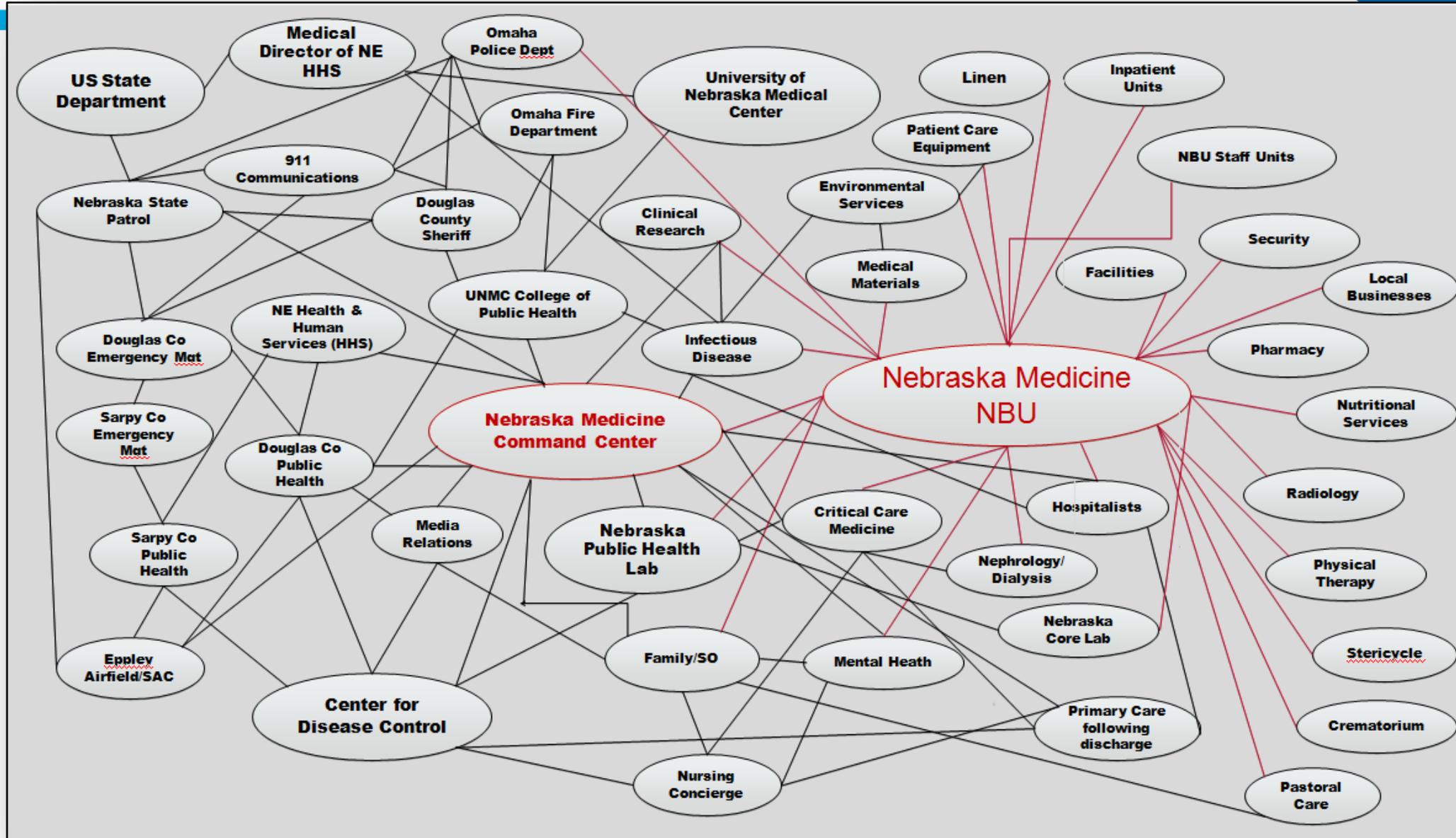
We are committed to providing a safe, secure environment for each of our patients. If you have any concerns or questions, please do not hesitate to speak with your caregiver.

Thank you,

Ira Horowitz, M.D.  
Chief Medical Officer  
Emory University Hospital

Nancye Feistritzer  
Chief Nursing Officer  
Emory University Hospital

# 2<sup>nd</sup> C: Coordination



# 3<sup>rd</sup> C: Collaboration





## BIO ISOLATION TRANSFER CARD (BIT)



### FDNY TRANSPORT TO HOSPITAL

#### Hospital Requirements

- ☐ Assemble Receiving Team
- ☐ Liaison Report to the Command Post
- ☐ Don PPE to Receive Patient from FDNY
- ☐ Standby at the Transfer Point
- ☐ Prepare 55 Gallon Bio-Waste Drums
- ☐ Provide Patient Info to **DisCAS** following Triage

#### FDNY Requirements

- ☐ Briefing with Liaison prior to Patient Arrival
- ☐ Confirm Transfer Point
- ☐ Decontamination Corridor Prepared
- ☐ Supervise Patient Transfer to Hospital
- ☐ Supervise **DisCAS**, Drilling and **DisCAS**
- ☐ Supervise **DisCAS** of Ambulance

- Ensure Decontamination Corridor Prepared
- Provide Bi-Directional Responsibility
- Secure patient transfer area utilizing Hospital Security
- Identified Decontamination area clearly

#### Hospital Contacts:

- ☐ Hospital ED:
- ☐ Boyd Dixon
- ☐ William Hicks
- ☐ Hospital EOC:
- ☐ Lt. Keith Franklin
- ☐ Lt. Sharon Rodriguez
- ☐ Administrator on Duty

#### FDNY Contacts:

- ☐ FDOC:
- ☐ EMS Telemetry:
- ☐ Hazmat Battalion Cell:

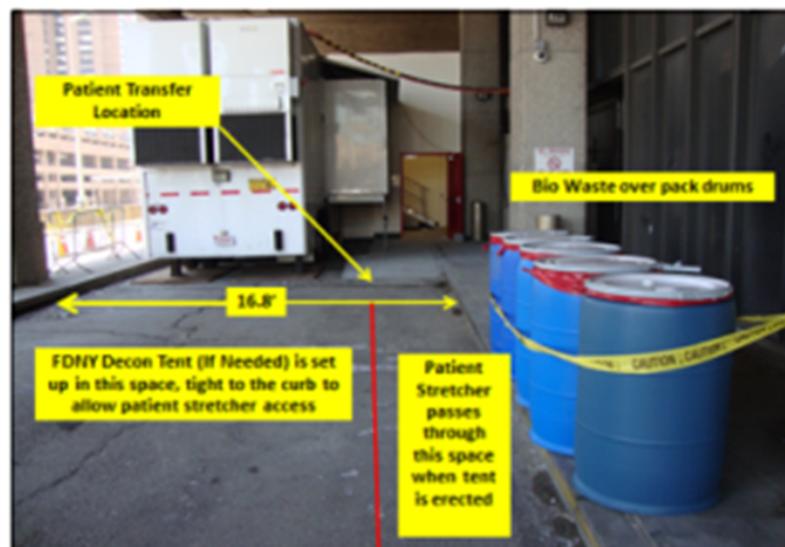
### Receiving Hospital to Treatment Hospital Transfer

#### Hospital Requirements

- ☐ Transfer Team Don PPE
- ☐ Control of transfer area
- ☐ Liaison reports to the Command Post
- ☐ Identify Transfer Location
- ☐ Await **DisCAS** Personnel to receive Patient
- ☐ **DisCAS** personnel Accepts Patient
- ☐ **DisCAS** Transport Patient

#### FDNY Requirements

- ☐ **DisCAS** responds to Receiving Facility
- ☐ **DisCAS** Officer meets Liaison
- ☐ Transfer Point Confirmed with Liaison
- ☐ **DisCAS** Personnel Don PPE
- ☐ **DisCAS** Officer supervises transfer
- ☐ Ensure response of Clean Ambulance
- ☐ Both Ambulances driven by clean personnel ONLY

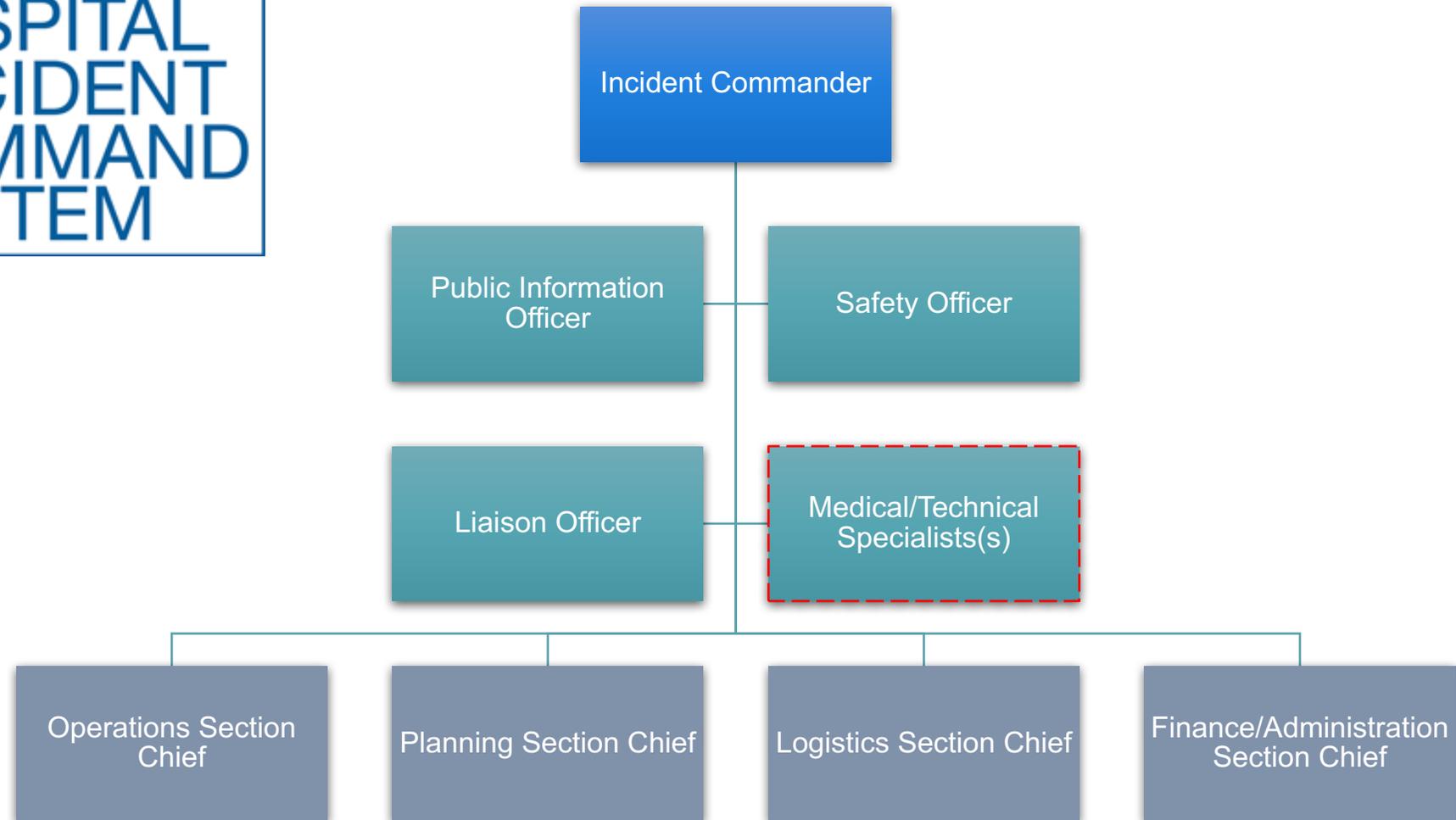


## The Ebola Preparedness & Response Paradox

- 
- Low Patient Count
  - High Resource Demand
  - Low Resource Capacity
  - High Risk Perception
  - Little or no experience with EVD PUIs or confirmed cases
    - Emory, Nebraska and NYC Health + Hospitals / Bellevue have all successfully treated confirmed Ebola patients



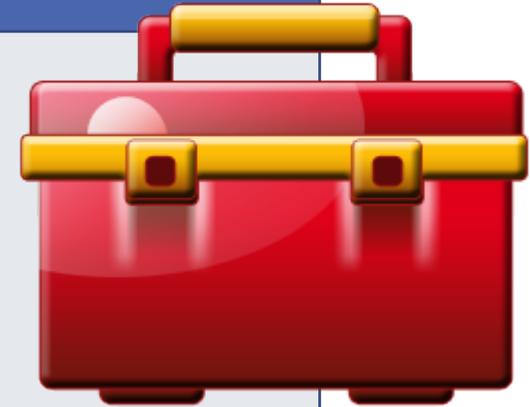
- Incident management system
- Applicable to any hospital
- Tool to manage
  - Threats
  - Planned events
  - Emergency incidents
- Structure
  - Modular
  - Scalable



**Organize and direct the Hospital Command Center.**

**Give overall strategic direction for Incident management and support activities, including emergency response and recovery.**

- **Oversee and convene command structure**
- **Implement Biocontainment Unit activation checklist**
- **Interagency coordination during transport**
- **Identify Medical Specialist Role (Infectious Disease MD)**
- **Identify Campus Mitigation Strategies**
- **Collaborate with community and national agencies as needed (e.g., health dept.; CDC; etc.)**
- **Determine Planning Cycle and define routine briefing times**
- **Collaborate with research leaders to access experimental drugs if needed**



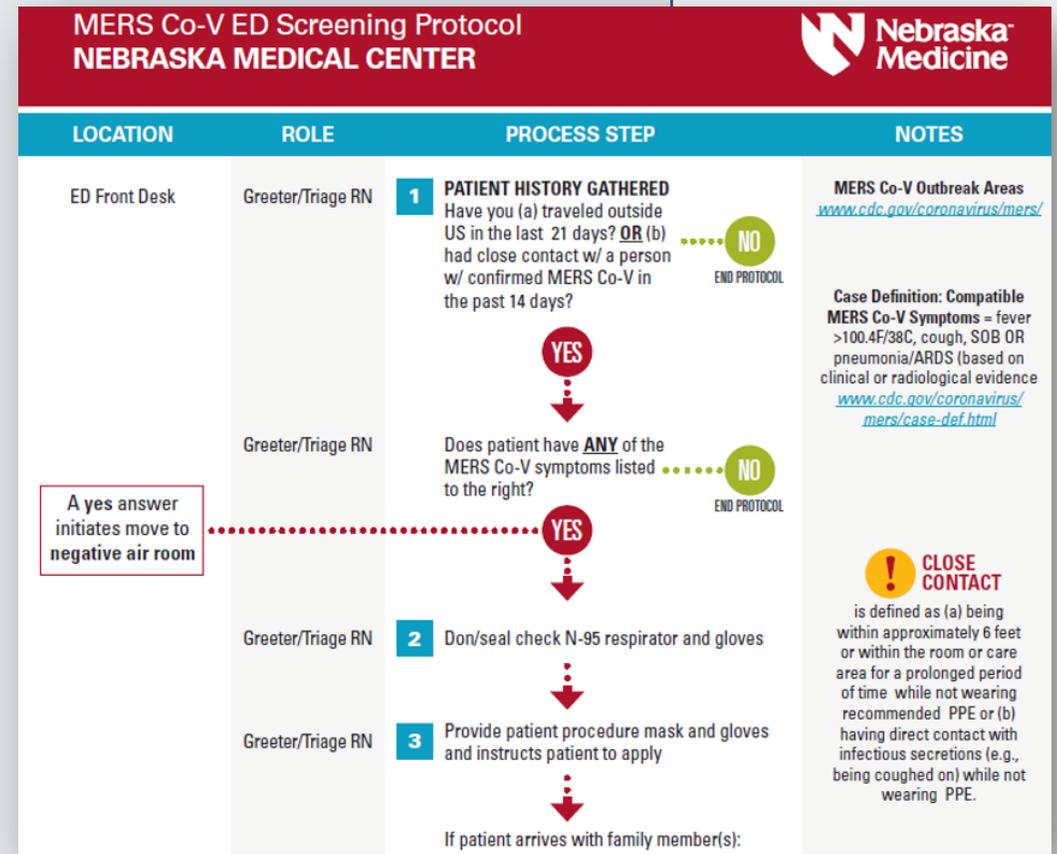
Conduit for information to internal and external stakeholders, including media as approved by Incident Command.

- Risk communication strategies
- Determine internal and external messages
- Collaborate with medical staff and family on messaging
- Establish information lines/hotlines
- Monitor and manage social media
- Who, what, where, when, how, why?



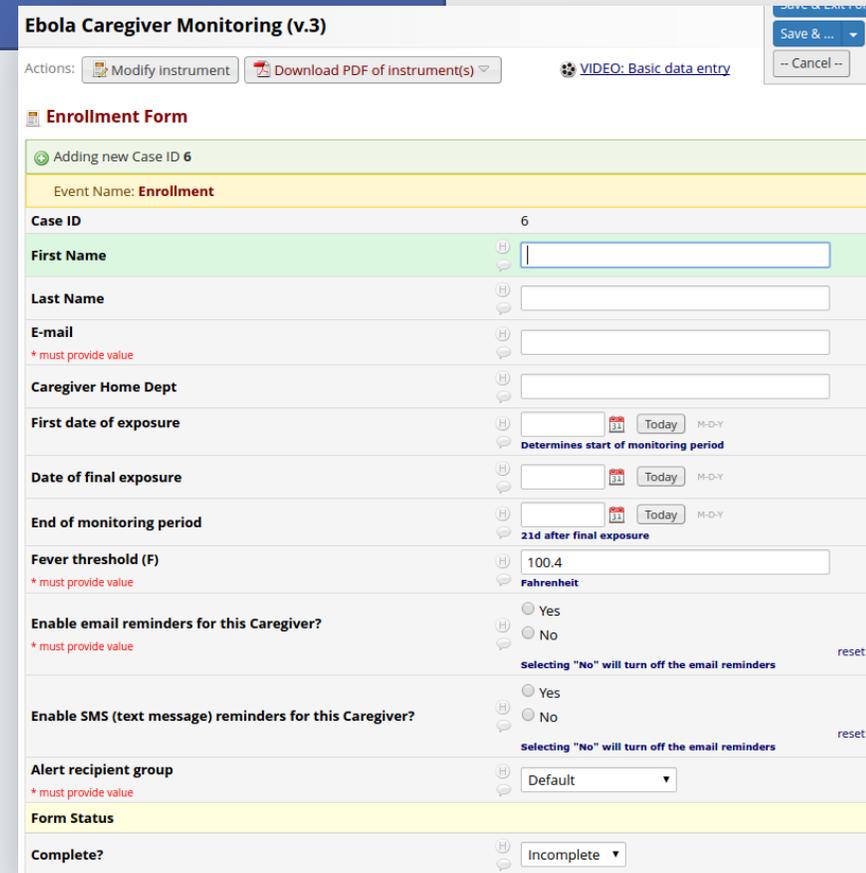
Develop and implement strategy and tactics to carry out objectives established by Incident Command. Organize, assign, and supervise Medical Care, Security, HazMat, and Business Continuity.

- Surge capacity plan
- Just in Time Personal Protective Equipment (PPE) training
- Staffing backfill plan
- Special project team(s)
- Protocol updates
- New issue process/procedure development
- Morgue Plan
- Laboratory Plan
- Behavioral Health Plan



Oversee all incident-related data gathering and analysis regarding incident operations and resources; develop alternatives for tactical operations, conduct planning meetings, and prepare Incident Action Plan for each operational period.

- Define Incident Action Plan Objectives
- Screening tool development for entry areas of health system
- Define plans for evacuation, severe weather, etc. if needed while activated
- Medical record audits
- Employee Health / Occupational Health Support for Temperature Monitoring during activation
- HR issues requiring resolution during activation
- Care of the family-nurse concierge



The screenshot displays the 'Ebola Caregiver Monitoring (v.3)' web application. At the top, there are action buttons: 'Modify instrument', 'Download PDF of instrument(s)', and 'VIDEO: Basic data entry'. Below this is the 'Enrollment Form' section, which includes a status bar 'Adding new Case ID 6' and an 'Event Name: Enrollment' header. The form contains several input fields and controls:

- Case ID:** 6
- First Name:** Text input field.
- Last Name:** Text input field.
- E-mail:** Text input field with a red asterisk and the text '\* must provide value'.
- Caregiver Home Dept:** Text input field.
- First date of exposure:** Date picker with a calendar icon, 'Today' button, and 'M-D-Y' format indicator. A note below says 'Determines start of monitoring period'.
- Date of final exposure:** Date picker with a calendar icon, 'Today' button, and 'M-D-Y' format indicator.
- End of monitoring period:** Date picker with a calendar icon, 'Today' button, and 'M-D-Y' format indicator. A note below says '21d after final exposure'.
- Fever threshold (F):** Text input field with '100.4' entered, a red asterisk and '\* must provide value', and a 'Fahrenheit' label.
- Enable email reminders for this Caregiver?:** Radio buttons for 'Yes' and 'No'. A note below says 'Selecting "No" will turn off the email reminders' and a 'reset' link.
- Enable SMS (text message) reminders for this Caregiver?:** Radio buttons for 'Yes' and 'No'. A note below says 'Selecting "No" will turn off the email reminders' and a 'reset' link.
- Alert recipient group:** Dropdown menu with 'Default' selected, a red asterisk and '\* must provide value', and a help icon.
- Form Status:** Section header.
- Complete?:** Dropdown menu with 'Incomplete' selected.

Responsible to organize and direct operations associated with maintenance of physical environment, materiel and service support activities.

- Waste Management Plan
- Facilities Plan (negative pressure, HVAC, etc.)
- Security Plan (transport, unit security)
- Biomed Plan (autoclave and other equipment)
- PPE management (# sets on hand, back orders, etc.)
- Linen Plan (scrubs, linens)
- Food Plan (patient and staff)
- Supply & Medication lists and availability



Finance Section Chief is to monitor utilization of assets and accounting for expenditures. Supervise documentation of expense and cost reimbursement.

- Cost center development
- Expense tracking
- Charge code development
- Funds flow, fast track purchases as needed for equipment



## Use of Just-in-Time Checklists

- Job Action Sheets
- Activation Checklist
- Supply List
- Equipment List

## Physician & Nursing Backfill Plan

- Depth
- Recruit & orient staff in other specialties (e.g., nephrology)
- Address backfill issues in advance
- RVUs & compensation issues



## Lead by Example

- Shared governance
- Relationship-based care

## Communication

- Daily team briefing
- Daily huddle communication (verbal & email)

## Standard Operating Procedures (SOPs)

- Staff ownership

Plan, practice, learn and adapt for your unique situation



# No Hierarchy... & Lots of Tools

Donning PAPER Level PPE	Competency Met	Competency Not Met (include reason)	Educator Initials
<p>Learner works with a donning partner to demonstrate Donning PAPER Level PPE following NBU policy 1.098 (Learner must meet all the following criteria).</p> <ul style="list-style-type: none"> <li>Verbalizes understanding that all personal clothing and jewelry shall be removed and will put on hospital provided clothing (<i>not necessary for simulation</i>).</li> <li>Verbalizes understanding that persons with long hair shall don a hair net or tie hair back.</li> <li>Demonstrates ability to gather all PPE items prior to beginning the donning process.</li> <li>Demonstrates testing the PAPER battery using a flow meter and verbalizes correct knowledge for interpreting the results.</li> <li>Demonstrates performing hand hygiene prior to donning PPE.</li> <li>Demonstrates working with a donning partner to don the following PPE in the correct sequence and method as directed in the NBU policy:                             <ul style="list-style-type: none"> <li>Plastic boot covers (inside suit)</li> <li>Biological Protective Suit (BPS)</li> <li>Disposable boots (over suit)</li> <li>2 Pairs of Exam gloves</li> <li>1 Pair KC500 Nitrile Long cuff Gloves</li> <li>PAPER Belt</li> <li>PAPER blower unit</li> <li>2 PAPER HEPA Filters</li> <li>PAPER Tubing</li> <li>PAPER Hood</li> <li>PAPER Flow Tester</li> <li>Duct Tape</li> </ul> </li> <li>Demonstrates performing a safety check with the donning partner and a mirror.                             <ul style="list-style-type: none"> <li>Checks for defects in the PPE.</li> <li>Ensures all skin is covered.</li> <li>Ensures the PPE fits well.</li> <li>Performs range of motion by raising arms, outstretched over.</li> <li>Repeats safety check after range of motion exercise.</li> </ul> </li> </ul>			

Donning Order:

Boot covers  
 Surgical gown  
 Surgical cap  
 N95 Respirator  
 Face Shield  
 \* Hand Hygiene

PAPER Doffing Order:

Step into Area #1  
 Remove duct tape at wrists.  
 Purple Nitrile Gloves  
 Remove duct tape at legs.  
 Boot Covers - step into Area #2.  
 Hang PAPER belt on hook.  
 Remove Yellow suit, step into Area #3.  
 \* Remember PAPER is still connected.  
 Facing trash can put hood ~~into~~ up + over head.  
 \* doffing partner will disconnect hose before discarding hood + secure it. PAPER still running.  
 Step back in area #3 so doffing partner can cap blower motor as they turn it off. Discard hose.  
 Remove boot liners. Bleach wipe each croc as you leave doffing pad.  
 Apply new patient care mask + gloves after good hand hygiene. Wait for shower.

  
 The Nebraska Biocontainment Unit  
 Powered Air Purifying Respirator (PAPER) Level PPE  
 Annual Competency Assessment

Name: (print) \_\_\_\_\_

Educator Name: \_\_\_\_\_

Date \_\_/\_\_/\_\_

*It's not always planned...*

 <b>Nebraska Medicine</b> POLICIES AND PROCEDURES MANUAL <input type="checkbox"/> System <input checked="" type="checkbox"/> Department Supersedes:	Section: Body Fluid Spill Cleanup in the NBU Subject: Number: 1.011 Attachments: Date Effective: August 2014 Date Reviewed: June 2015; July 2015, October 2015
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**Nebraska Biocontainment Unit (NBU)**

**Body Fluid Spill Cleanup**

**Materials needed:**  
Appropriate Personal Protective Equipment (PPE)  
Absorbent Pads  
Absorbent Pad with fluid resistant backing  
1:10 Solution Bleach  
Mop Bucket (that is designated to the area where the spill occurs)  
Mop Pole (that is designated to the area where the spill occurs)  
Clean mop head  
\* Bleach Wipes  
\* Broom with removable handle  
\* Long handled dust pan with removable handle

**Definition:**  
Body fluid shall refer to all fluids that originate from a human body. This includes blood, urine, feces, vomit and others.

**Purpose:**  
To define a process for cleanup, decontamination and disposal of body fluid spills.

**Policy:**  
Body fluid spills in the NBU shall be cleaned by NBU personnel.

Immediately following a spill the staff shall assess the need to call for assistance with the cleanup.

All body fluid spills shall be promptly cleaned and surfaces that come in contact with the spill shall be disinfected with 1:10 concentration bleach.

Personnel performing the cleanup shall wear appropriate PPE as determined by the NBU medical director. This may include donning a disposable plastic apron over the required PPE.

**Procedure:**

1. Immediately following the spill layer the entire body fluid spill with enough absorbent pads to allow the fluid to become fully absorbed into the material.
  - a. If the absorbent pad becomes saturated and body fluid pools on the surface or it is suspected that pad is insufficient, place more pads on top (figure 1).

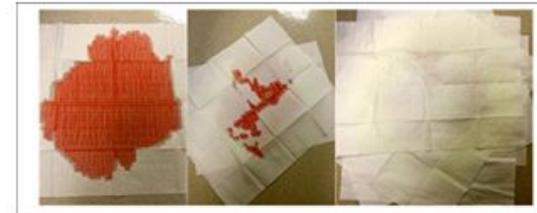


Figure 1

2. Once the fluid is absorbed, place an absorbent pad with a fluid resistant backing on top of the layers (the fluid resistant backing should face up).



Figure 2

3. Gather and bundle the pads by enclosing them in the outer absorbent pad then gently place into an autoclave bag lined trash can.
  - a. If there is evidence that the body fluid is still present, place additional absorbent pads on it and repeat the procedure.
4. Remove outer gloves and perform hand hygiene using bleach wipes before donning a clean pair of outer gloves.
5. Gently gather the neck of the autoclave bag and secure it with autoclave tape.
6. Follow NBU Policy 1.167 Waste Processing to remove the bagged items from the patient care area.
7. Using 1:10 bleach solution mop the area where the spill occurred\*.
  - a. After the area has been mopped the mop head shall be removed from the mop pole.
  - b. Follow NBU Policy 1.166 Laundry Protocol to remove the mop head from the patient care area.

\* NOTE: if the body fluid spill is small it is appropriate to use bleach wipes in place of #7

## Multiple Scenarios and Partners



Operating Room Staff

- Care of a PUI



Radiology Department

“Practice makes  
PERMANENT, not  
perfect.”

- Dale Carnegie,  
1888-1955



Local Responders and the  
United States Air Force



Provider Down Policy

- Incident Command structure is important
- Bricks and mortar may need adjustments
- Daily briefings assured everyone on same page and provided touch point with all team members
- Problem solving was constant
- Leadership matters
- Interprofessional teamwork is essential
- No cost structures exist
- Business continuity planning is important...”what if”, “what if”,...



BREAK

# Introduction to Homeland Security Exercise and Evaluation Program (HSEEP) and Application via NETEC Exercise Resources

Presenters

Syra Madad, DHSc, MSc, MCP

Angela Vasa, BSN, RN, CCRN



Define	Define the types of exercises that can be utilized for highly infectious disease assessment, treatment and response units.
Describe	Describe the steps of the exercise design process for highly infectious disease assessment, treatment and response units.
Identify	Identify and explain the steps of the evaluation process for healthcare emergency management exercises.
Apply	Apply the basics of exercise design to develop a special pathogen exercise using NETEC exercise resources and ASPR performance metrics.

# Homeland Security Exercise and Evaluation Program (HSEEP)



FEMA

Homeland Security  
Exercise and Evaluation Program

- Set of guiding principles for exercise programs
- Common approach to exercise
  - Program management
  - Design & development
  - Conduct, evaluation & improvement planning

# HSEEP Principles & Exercise Methodology



Guided by Elected & Appointed Officials  
Capability-based, Objective-Driven  
Progressive Planning Approach  
Whole Community Integration  
Informed by Risk  
Common Methodology

# HSEEP Exercise Program Management

- Guided by Elected & Appointed Officials
- Capability-based, Objective-Driven
- Progressive Planning Approach
- Whole Community Integration
- Informed by Risk
- Common Methodology



## NYC Health + Hospitals Leads Multi-Site, Multi-Agency Drill on Infectious Special Pathogens

*Real-world simulation assesses New York City's readiness to care for patients with Lassa fever and MERS*

Apr 05, 2017

New York, NY

“The scope and complexity of today’s exercise gave participants an added layer of realism,” said Stanley Brezenoff, interim president and chief executive officer



[See all News →](#)

“Involving multiple city and state agencies and beginning with identification in a clinical setting by providers who don’t know to expect this are two of the reasons that national and international observers are coming to watch and learn.”  
Syra S. Madad, DHSc, MSc, MCP, director of the System-wide Special Pathogens Program

# HSEEP Exercise Program Management

April 19, 2016 –  
Virtual Tabletop



Concepts and Objectives Meeting **January 2016** →  
Final Planning Meeting  
**April 2016:**

Purpose, Scope, Objectives, Scenario,  
Plans

Scenario:

A family of three, a mother and her two children, a 12-year-old daughter and 25-year-old son have returned to New York from a recent trip to Liberia.

Exercise play at Frontline Hospital,  
Ambulatory Site, R2ESPTC

Participants:

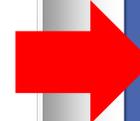
Central Office Emergency Management,  
Bellevue Hospital, Elmhurst Hospital,  
Morrisania, FDNY, NYC DOHMH

# Discussion-Based Exercise - Objectives

## Ebola-Focused System-wide Virtual Tabletop Exercise

Situation Manual  
04/2016

EXERCISE OVERVIEW	
<b>Exercise Name</b>	Ebola-Focused System-wide Virtual Tabletop
<b>Exercise Date &amp; Time</b>	April 19, 2016, 0900 – 1200 EST
<b>Exercise Sponsor</b>	NYC Health + Hospitals Emergency Management [Funding source: Hospital Preparedness Program – Healthcare Coalition Ebola Preparedness and Response (E-PART-A 10)]
<b>Exercise Purpose</b>	The exercise described herein is intended to evaluate and test the NYC Health + Hospitals system-wide Ebola Concept of Operations Plan (ConOps) on the ability of Frontline, Designated and Ambulatory facilities to rapidly and safely identify, isolate, assess, transport and initially treat person(s) under investigation (PUI) with Ebola Virus Disease (EVD).
<b>Scope</b>	This system-wide Virtual Tabletop Exercise (VTTX) is planned for approximately 3 hours. The exercise will be hosted at the Emergency Operations Center located at 125 Worth Street, Suite 412 New York, New York 10013 and via videoconference at participating sites.
<b>Core Capabilities</b>	Healthcare System Preparedness; Emergency Operations Coordination; Fatality Management; Information Sharing; Volunteer Management; Responder Safety and Health
<b>Objectives</b>	<ul style="list-style-type: none"> <li>Assess Frontline Hospital and Ambulatory Facility's ability to effectively and safely follow the "Identification, Isolation and Preliminary Management Protocol" for PUI.</li> <li>Assess Frontline Hospital and Ambulatory Facility's ability to properly follow plans to don personal protective equipment.</li> <li>Assess Frontline Hospital and Ambulatory Facility's ability to promptly follow the "Internal/External Communication Protocol."</li> <li>Assess Frontline Hospital and Ambulatory Facility's ability to follow the "Intra-System Transportation Protocol."</li> <li>Assess Frontline Hospital and Ambulatory Facility's ability to follow plans to "Mobilize Staff" when the need arises.</li> </ul>



1. Assess NYC Health + Hospitals/Elmhurst and Morrisania's ability to effectively and safely follow identification and isolation protocols for a suspected highly infectious disease patient within 5 minutes of presentation.
2. Assess NYC Health + Hospitals/Elmhurst, Morrisania and Bellevue's ability to properly follow plans to don and doff appropriate personal protective equipment.
3. Assess NYC Health + Hospitals/Elmhurst and Morrisania's ability to conduct preliminary assessment, ascertain risk and notify DOHMH.

### SMART Guidelines for Exercise Objectives

<b>Specific</b>	Objectives should address the five Ws- who, what, when, where, and why. The objective specifies what needs to be done with a timeline for completion.
<b>Measurable</b>	Objectives should include numeric or descriptive measures that define quantity, quality, cost, etc. Their focus should be on observable actions and outcomes.
<b>Achievable</b>	Objectives should be within the control, influence, and resources of exercise play and participant actions.
<b>Relevant</b>	Objectives should be instrumental to the mission of the organization and link to its goals or strategic intent.
<b>Time-bound</b>	A specified and reasonable timeframe should be incorporated into all objectives.

# Discussion-Based Exercise Relevant Plans




**Special Pathogens Concept of Operations (CONOPS)**

June 2016



NYC Health + Hospitals  
Special Pathogens ConOps

Ebola/Special Pathogens  
Concept of Operations  
(ConOps)

NYC Health + Hospitals / Morrisania

**Highly Infectious Disease/Special Pathogen Incident Response Guide**

<b>Originator:</b> Central Office Emergency Management	<b>Functions:</b> Infection Prevention (IC); Environmental Care (EC); Emergency Management (EM); Human Resources (HR); Leadership (LD)
<b>Subject:</b> SPECIAL PATHOGEN RESPONSE GUIDELINES	
<b>Date Issued:</b> 01/26/2017 <b>Date Revised:</b>	

**I. PURPOSE:**  
To provide guidelines for the recognition and management of Special Pathogen (highly communicable disease) patients at NYC H+H/Morrisania while minimizing exposure to NYC H+H / Morrisania health care workers and maintaining a safe environment for patients.

**II. SCOPE:**  
All patient care areas where potential Special Pathogen patients may present including but not limited to the Adult/Pediatric Primary Care Clinical Areas, Optometry, Dental, OB/GYN, CDC and WIC areas.

**III. REQUIREMENTS:**  
NYC Health + Hospitals Guidance

**IV. RESPONSIBILITIES:**

- *Clerk* - greeting and triaging patients by implementing screening protocols
- *Chief Nursing Officer* - ensure adequate trained staff as required, and enhanced communication as required
- *Associate Director of Nursing* - responsible for follow up of any patient or staff deemed high risk and requiring higher level of care
- *Associate Medical Director/Assistant Director of Nursing* - responsible for ongoing PPE training, recording and maintain training records
- *Runner* - assist buddy as needed with donning and doffing, notifying command center of patient status
- *Attending Physicians* - will provide care during a special pathogen patient evaluation
- *Nurses* - responsible for direct patient care, access to patient while in isolation, liaison with family
- *Laboratories* - lab testing will not be done at Morrisania
- *Environmental Services* - decontaminates equipment in accordance with vendor instructions and policy and procedure and removal of waste materials from outside of room, terminal clean after room has been emptied
- *Infection Prevention* - supervision of isolation techniques, surveillance of staff and patients, tracking of any staff who have contact with patient
- *Hospital Police/ Facility Security* - when required, provide support in managing suspected special pathogen patients

Facility-Specific  
Ebola/Special Pathogen  
Incident Response Guide  
(IRG)

NYC Health + Hospitals

**EMS Transport from Ambulatory Site Checklist**

Ambulatory Site Requirements	
Assemble Transfer Team	
Identify Liaison (designated point person)	
Identify Transfer Location and Share with EMS	
Identify / Clear Location on 1 <sup>st</sup> floor for FDNY EMS HazTac Crew to Don Personal Protective Equipment (PPE)	
Transfer Team Dons PPE (If necessary, Transfer Team will assist EMS in patient transfer to ambulance)	
Secure & Control of Transfer Area / FDNY Crew PPE Donning Area	
Await EMS Personnel to receive Patient	
Provide Patient Info to EMS upon Arrival	
Secure & Control Elevator for FDNY to move from 1 <sup>st</sup> Floor to 3 <sup>rd</sup> Floor and hold for Transport of Patient to Ambulance	
After Patient Transfer, Identify Decontamination Area clearly and Close Off Area (If EVS is needed)	

EMS Requirements (FDNY)	
HazTac responds to Receiving Facility	
HazTac Officer meets Liaison & obtains Patient Presenting History, Symptomology & Pedigree information	
Transfer Point Confirmed with Liaison	
HazTac Personnel Don PPE	
HazTac Officer supervises Transfer	
Ensure Response of Clean Ambulance	
Both Ambulances Driven by Clean Personnel ONLY	

FDNY Contacts	
FDOC: (718) 999-7911	
EMS Telemetry: (718) 899-5062	
Hazmat Battalion Cell: (347) 539-0560	
FDNY EMS HazTac Officer: (347) 203-7400	

FDNY Bio Isolation  
Transfer Cards & PUI  
Transport Checklist

## Major & Detailed Events (MSEL)

NYC  
HEALTH+  
HOSPITALS

April 19, 2016: 0200

- Approximately two days after their arrival back to the States, the young girl begins to exhibit a fever (101.5F), weakness, abdominal pain and loss of appetite.
- The mother takes her daughter to the Emergency Department of Elmhurst Hospital.
  - Past medical history is unknown
  - Communication with son has been unsuccessful

NYC  
HEALTH+  
HOSPITALS

April 19, 2016: 0230am

- After ascertaining risk of EVD with NYCDOHMH, FDNY has been tasked to begin transport arrangements to Bellevue Hospital.

NYC  
HEALTH+  
HOSPITALS

April 19, 2016: 0300

- Bellevue has been notified by NYCDOHMH & FDNY regarding the transportation of the pediatric PUI.
- Pediatric PUI and mother arrive at Bellevue.

NYC  
HEALTH+  
HOSPITALS

### Module 1: Discussion

#### Questions:

- What steps are taken to identify and isolate the patient?
- How would initial evaluation and care be rendered to the patient?
- What steps are taken to medically evaluate the mother if a high suspicion of transmission is suspected?
- Given that the pediatric PUI arrived during after-hours, how would this affect overall planning and coordination?

#### Key Issues:

- Travel history to known EVD-affected country
- Pediatric PUI
- Medical evaluation of accompanying parent
- Protection of staff and other patients in the facility

### BREACH IN PPE!

- While evaluating pediatric PUI in the isolation room, the triage nurse notices a large tear in her outer glove.

#### KEY QUESTIONS

- How will the nurse doff and evaluate site of tear?
- Who will be continuing the evaluation of the PUI?
- How will this impact transport of the PUI to Bellevue?

TIME



## Evaluation

### Hot Wash

- What are some strengths discovered during this exercise?
- What are the areas for improvement discovered during this exercise?
- What additional planning efforts or needs were discovered during this exercise?
- Any action items needing follow-up?

### Participant Feedback Form

- Please take a moment to complete the participant feedback form.
- Please make sure you signed the sign in sheet.
- Thank you for your participation!

#### Module 1

**Objective 1:** Assess Frontline Hospital and Ambulatory Facility’s ability to effectively and safely follow the “Identification, Isolation and Preliminary Management Protocol” for PUI.

CONOPS page 20

Organizational Capability Target	Task Completed			Associated Critical Tasks	Evaluator Observation Notes and Explanation of Rating	Target Rating
	YES	NO	Not Observed			
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Relevant exposure history mentioned including exposure criteria of whether the patient has traveled internationally or had contact with an individual with EVD within the previous 21 days.	This was mentioned as part of the scenario. It was discussed that even though there are currently no Ebola travel alerts, since there are other illnesses circulating, a travel history would be taken.	S
				Exposure criteria and signs/symptoms compatible with EVD was mentioned.  These include: fever (subjective or $\geq 100.4^{\circ}\text{F}$ or $38.0^{\circ}\text{C}$ ) or headache, fatigue, weakness, muscle pain, vomiting, diarrhea, abdominal pain, or hemorrhage (bleeding gums, blood in urine, nose bleeds, coffee ground emesis or melena).	Symptoms were provided as part of the scenario. EHC was confident they would be able to identify a Fever/Travel patient. They stated EHC continues with NYSDOH mandated training	
				Procedures to isolate the patient that adhere to the prevention of transmission were discussed (e.g. isolation room, equipment for patient in room, access control).	Though the PUI presented is a pediatric patient, once triaged and suspected fever/travel was determined, the patient would be brought to the Adult ED as that is where their Ebola isolation room is located.	

# April 5, 2017 Exercise Planning Team

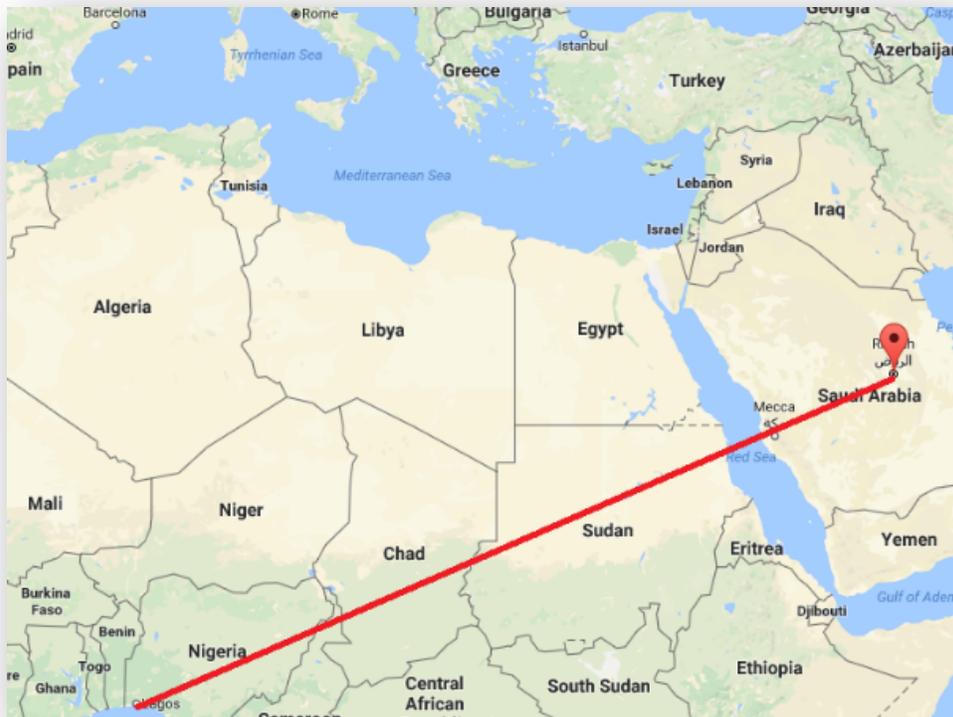


TIP: Use your network!



Series of exercise planning meetings: August 2016 → March 2017

- Facility-specific planning meetings



- Detailed Scenario
- Epidemiological linkages
- History of travel and related incubation upon admission
- Family medical history
- Patient's clinical presentation at respective sites including hemodynamic parameters
- Use of real actors/simulation mannequins

# Exercise Documents

## EXERCISE EVALUATION GUIDE

Exercise Name: Special Pathogens Full-Scale Exercise	Evaluator Information:	Evaluator 1:
Organization/Jurisdiction: NYC Health + Hospitals		Evaluator 2:
Exercise Date: April 5, 2016		

### RATINGS DEFINITIONS

Rating	Definition
--------	------------

with the core capability were completed in a manner that...  
 ance of other activities. Performance of this activity did n...  
 e public or for emergency workers, and was conducted in...  
 ations, and laws.

with the core capability...  
 of other activities.



## TRAINING EXERCISE IN PROGRESS...

Today April 5<sup>th</sup> from 9am to 12pm, we will be  
 Conducting a training exercise.

## Special Pathogen Full-Scale Exercise

Controller/Evaluator Handbook

Ap

Participant Feedback Form

Special Pathogen Full-Scale Exercise

### PARTICIPANT FEEDBACK FORM

Thank you for participating in this exercise. Your observations, comments, and input are greatly appreciated, and provide invaluable insight that will better prepare us against threats and hazards. Please keep comments concise, specific, and constructive.

#### Part I: General Information

Please enter responses and check box selections.

Name: \_\_\_\_\_ Position Title: \_\_\_\_\_

Affiliation: \_\_\_\_\_

Exercise Role:  Player  Facilitator/Controller  Observer  Evaluator

Location during Exercise:  In-Person/EOC  Video Conference  Audio Conference

#### Part II: Exercise Design

Please rate, on a scale of 1 to 5, your overall assessment of the exercise relative to the statements provided, with 1 indicating strong disagreement and 5 indicating strong agreement.

Assessment Factor	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The exercise scenario was plausible and realistic.	1	2	3	4	5
The exercise objectives were appropriate for the scenario presented.	1	2	3	4	5
Exercise participants included the right people in terms of level and mix of disciplines.	1	2	3	4	5
Participants were actively involved in the exercise.	1	2	3	4	5
The exercise increased my understanding about and familiarity with the capabilities and resources of other participating organizations (e.g. FDNY EMS, NYC DOHMH).	1	2	3	4	5
The exercise provided the opportunity to address significant decisions in support of critical mission areas.	1	2	3	4	5
After this exercise, I am better prepared to deal with the capabilities and hazards addressed.	1	2	3	4	5

## Special Pathogen Full-Scale Exercise

Exercise Plan  
 April 5, 2017

The Exercise Plan (ExPlan) gives elected and appointed officials, observers, and players from participating organizations information they need to observe or participate in the exercise. Some exercise material is intended for the exclusive use of exercise controllers, and evaluators, but players may view other materials that are necessary for performance. All exercise participants may view the ExPlan.

#### Scenario:

Two siblings including 16-year-old sister (no significant medical history), travel to Nigeria and Benin for 5 days and a 10-day overseas trip, both siblings return to home to New York City.

Approximately one day after the sibling's arrival to NYC, the sibling is evaluated at the pediatric ED of Elmhurst Hospital Center for evaluation of persistent tiredness since 3/30/17. The sibling reports hearing loss, headache, chills/rigor, myalgia, and the sibling's grandmother arrive at the pediatric ED of Elmhurst Hospital Center for evaluation of persistent tiredness since 3/30/17. The sibling reports hearing loss, headache, chills/rigor, myalgia, and the sibling's grandmother arrive at the pediatric ED of Elmhurst Hospital Center for evaluation of persistent tiredness since 3/30/17.

#### Epidemiological Linkage:

- Lassa fever (last documented confirmed case in Benin, reported on February 20, 2017). A total of 10 cases were reported in Benin, including a pregnant woman and newborn child. The incubation period of Lassa fever is 6-16 days. The onset of the disease, when it is symptomatic, is usually with fever, general weakness, headache, sore throat, muscle pain, chills, diarrhea, cough, and abdominal pain. Deafness occurs in 25% of patients with Lassa fever. Humans usually become infected with Lassa fever through direct contact with urine or feces of infected *Mastomys* rats, spread between humans through direct contact with urine or feces, or other bodily secretions of a patient with Lassa fever.
- On 3/28/2017 both siblings visited a market close to the border with Nigeria. On 3/29/17 deceased pregnant female live market for lunch and site-seeing near where they casually noticed rodent droppings through the village.

### Special Pathogens Full-Scale Exercise

#### Exercise Team:

<b>Bellevue Controller 1 (PUI):</b> <b>Name:</b> John Maher <b>Phone:</b> 917-991-5862 <b>Email:</b> john.maher@bellevue.nychhc.org	<b>Bellevue Controller 2 (Command Center):</b> <b>Name:</b> Boyd Dixon <b>Phone:</b> 646-795-8113 <b>Email:</b> Boyd.Dixon@bellevue.nychhc.org
<b>Evaluator 1 Evaluator:</b> <b>Name:</b> Andrea Echeverri <b>Phone:</b> _____ <b>Email:</b> andrea.echeverri@bellevue.nychhc.org	<b>Evaluator 2 Evaluator:</b> <b>Name:</b> Trish Tennill <b>Phone:</b> _____ <b>Email:</b> Patriciaann.Tennill@bellevue.nychhc.org
<b>Safety:</b> <b>Name:</b> Kieran Toale <b>Title:</b> _____ <b>Phone:</b> _____ <b>Email:</b> Kieran.toale@bellevue.nychhc.org	<b>Administrative Support:</b> <b>Name:</b> _____ <b>Title:</b> _____ <b>Phone:</b> _____ <b>Email:</b> _____

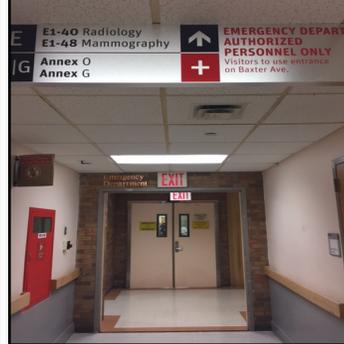
# Operations-based Exercise MSEL



GREEN	Bellvue												
GREY	Elmhurst												
BLUE	Marricania												
YELLOW	SIMCELL												
ORANGE	FDNY												
PURPLE	OCHE												
Site	Simulation Cell (NYCH+H)		Bellvue		Marricania		Elmhurst						
Time	Activity	POC	Activity	POC	Location	Activity	POC	Location	Activity	POC	Location		
8:00am	Exercise Orientation <b>(Facilitator/Controller):</b> Review Exercise Timeline, Roles, and Safety Measures, Open Video Bridge, Call-in for actor orientation: 1(866)731-7734/ Code: 7702158#	<ul style="list-style-type: none"> <li>Controller</li> <li>Player</li> <li>Evaluator</li> <li>Observer</li> <li>Ex Team/Trusted Agent</li> </ul>	Exercise Orientation <b>(Facilitator/Controller):</b> Review Exercise Timeline, Roles, and Safety Measures	<ul style="list-style-type: none"> <li>Player</li> <li>Controller</li> <li>Observer</li> <li>Evaluator</li> <li>Ex Team/Trusted Agent</li> </ul>	Old Medical Library	Exercise Orientation <b>(Facilitator/Controller):</b> Review Exercise Timeline, Roles, and Safety Measures	<ul style="list-style-type: none"> <li>Controller</li> <li>Observer</li> <li>Evaluator</li> <li>Ex Team/Trusted Agent</li> </ul>	Breakthrough Room 2nd Floor	Exercise Orientation <b>(Facilitator/Controller):</b> Review Exercise Timeline, Roles, and Safety Measures	<ul style="list-style-type: none"> <li>Controller</li> <li>Observer</li> <li>Evaluator</li> <li>Ex Team/Trusted Agent</li> </ul>	Command Center AB09		
8:30am	Exercise Orientation <b>(Facilitator/Controller):</b> Review Exercise Timeline, Roles, and Safety Measures, Open Video Bridge, Call-in for actor orientation: 1(866)731-7734/ Code: 7702158#	<ul style="list-style-type: none"> <li>Controller</li> <li>Player</li> <li>Evaluator</li> <li>Observer</li> <li>Ex Team/Trusted Agent</li> </ul>	Exercise Orientation <b>(Facilitator/Controller):</b> Review Exercise Timeline, Roles, and Safety Measures	<ul style="list-style-type: none"> <li>Player</li> <li>Controller</li> <li>Observer</li> <li>Evaluator</li> <li>Ex Team/Trusted Agent</li> </ul>	Old Medical Library	Exercise Orientation <b>(Facilitator/Controller):</b> Review Exercise Timeline, Roles, and Safety Measures	<ul style="list-style-type: none"> <li>Controller</li> <li>Observer</li> <li>Evaluator</li> <li>Ex Team/Trusted Agent</li> </ul>	Breakthrough Room 2nd Floor	Exercise Orientation <b>(Facilitator/Controller):</b> Review Exercise Timeline, Roles, and Safety Measures	<ul style="list-style-type: none"> <li>Controller</li> <li>Observer</li> <li>Evaluator</li> <li>Ex Team/Trusted Agent</li> </ul>	Command Center AB09		
8:45am	Syrta to call SimCell regarding PEDr PUI Transport to activate FDNY Sim Cell	DOHMH SIMCELL	Actor Orientation: Review Script and Safety Measures <b>Resource:</b> Exercise Materials (C/E Handbook, EEG, Sign-In Sheet) <b>Conference Call:</b> 1(866)731-7734/ Code: 7702158#	<ul style="list-style-type: none"> <li>Actor</li> <li>Controller</li> <li>Facilitator</li> </ul>	FDNY EMS St 8: 435 East 26th Street (down the block btw 1st Avenue and FDR Service Road)	Actor Orientation: Review Script and Safety Measures <b>Resource:</b> Exercise Materials (C/E Handbook, EEG, Sign-In Sheet) <b>Conference Call:</b> 1(866)731-7734/ Code: 7702158#	<ul style="list-style-type: none"> <li>Actor</li> <li>Controller</li> <li>Facilitator</li> </ul>	Deborah Mabry's Office	Actor Orientation: Review Script and Safety Measures <b>Resource:</b> Exercise Materials (C/E Handbook, EEG, Sign-In Sheet) <b>Conference Call:</b> 1(866)731-7734/ Code: 7702158#	<ul style="list-style-type: none"> <li>Actor</li> <li>Controller</li> <li>Facilitator</li> </ul>	Room A1-04		
9:00am	Site Exercise Play: <ul style="list-style-type: none"> <li>Bellvue Adult PUI Management</li> <li>Marricania Mystery Patient</li> <li>Elmhurst Mystery Patient</li> </ul>		Exercise Play Begins <b>(CONTROLLER JM):</b> <ul style="list-style-type: none"> <li>Adult Mannequin Handoff??</li> <li>Adult Mannequin Clinical Play (Intubation and Aspiration)</li> <li><b>Bellvue Command 212-562-4702</b> gets call from NYC DOHMH SIMCELL regarding PEDS PUI Transport Confirmation</li> </ul>	<ul style="list-style-type: none"> <li>Clinical Staff</li> <li>Command Staff</li> </ul>	7W30 Command Center	Exercise Play Begins <b>(Controller Dr.JW):</b> <ul style="list-style-type: none"> <li>PUI Enter Marricania</li> <li>Clerk inquires about PUI triage, symptoms, travel</li> <li>PUI escorted to isolation room</li> </ul>	<ul style="list-style-type: none"> <li>Controller</li> <li>Trusted Agent</li> </ul>	Breakthrough Room 2FL	Exercise Play Begins <b>(CONTROLLER CR):</b> <ul style="list-style-type: none"> <li>PEDr PUI and Grandmother enter Elmhurst PEDS ED</li> <li>Clerk/Triage Nurse inquires about PUI triage,</li> <li>PUI escorted to isolation room</li> </ul>	<ul style="list-style-type: none"> <li>Controller</li> <li>Trusted Agent</li> </ul>	PEDr ED		
9:05am	SIMCELL on standby for call and notification	ALL	HICS Alert for PEDS PUI Transport to Bellvue <b>Resource:</b> PEDS team Danno/ Simulated Fire Lane Set-Up/ SWN Message	Command Staff	Command Center	PUI Management <b>(CONTROLLER Dr.JW):</b> <ul style="list-style-type: none"> <li>Nurse conducts Preliminary Assessment</li> <li>Provider Don PPE to ascertain PUI condition (vitals)- actors give "this is an exercise Script" to provider</li> <li>Notification to Command Staff <b>(CONTROLLER DM)</b></li> <li><b>Resource:</b> DOHMH SIMCELL Provider Access Line</li> </ul>	<ul style="list-style-type: none"> <li>Clinical Staff</li> <li>Incident Command Staff</li> </ul>	Isolation Room	PUI Management <b>(CONTROLLER CR):</b> <ul style="list-style-type: none"> <li>Nurse conducts preliminary assessment</li> <li>Provider Don PPE to ascertain PUI condition (vitals) actors give "this is an exercise Script" to provider</li> <li>Notification to Command Staff</li> <li><b>Resource:</b> DOHMH SIMCELL Provider Access Line Flash Card</li> </ul>	<ul style="list-style-type: none"> <li>Clinical Staff</li> <li>Incident Command Staff</li> </ul>	Isolation Room		
9:15am			PEDr PUI Arrival/ Handoff/ Escort to SPP Unit <b>(SAFETY KT)</b> <b>Resource:</b> Hospital Police for Fire Lane	FDNY Media Filming	Fire Lane and 7W29								
9:30am	Call from Marricania and Elmhurst to SimCell DOHMH provider Access Line/ FDNY DOHMH and FDNY coordinate transport Central Office EM begins to receive notification 10am- Rad call watch command	SIMCELL DOHMH/FDNY COEM	PEDr PUI Clinical Play <b>(CONTROLLER JM)</b>	Clinical Staff	7W29	Call to DOHMH - SIMCELL <b>(CONTROLLER Dr.JW)</b> <ul style="list-style-type: none"> <li>DOHMH notifies FDNY via SIMCELL</li> </ul>	SIMCELL (DOHMH/FDNY)	SIMCELL	Call to DOHMH - SIMCELL <b>(CONTROLLER Dr.JM)</b> <ul style="list-style-type: none"> <li>DOHMH notifies FDNY via SIMCELL</li> </ul>	SIMCELL (DOHMH/FDNY)	SIMCELL		
10:30am	<b>INJECT:</b> DOHMH SIMCELL calls Marricania Command Staff regard Contact Tracing	SIMCELL (DOHMH)	FDNY Unit DECON <b>(SAFETY KT)</b> PEDr PUI Labr Play <b>(CONTROLLER JM)</b>	FDNY Clinical Staff	Fire Lane 7W29	FDNY Arrives at Marricania <b>(SAFETY)</b> <ul style="list-style-type: none"> <li>HAZTAC crew don PPE</li> </ul>	FDNY	1st Floor Activity Room	FDNY Arrives at Elmhurst <b>(SAFETY)</b> <ul style="list-style-type: none"> <li>HAZTAC crew don PPE</li> </ul>	FDNY	ELMED ramp		
11:30am	Central Office EM calls Marricania and Elmhurst to confirm patient transport	SIMCELL (COEM)	OCHE/ Deceit Management Play <b>(CONTROLLER JM)</b> All Daff PPE <b>(CONTROLLER JM)</b>	OCHE Clinical Staff	7W30 7W	DOHMH SIMCELL calls Marricania Command Staff regard Contact Tracing PUI Patient Transferred OUT Provider Daff PPE <b>(CONTROLLER Dr.JW)</b>	SIMCELL (DOHMH)	Marricania Isolation Area	FDNY telemetry confirms transportation to Bellvue PEDr PUI Patient and Guardian Transferred OUT Provider Daff PPE <b>(Controller Dr.JW)</b>	SIMCELL (DOHMH/FDNY)	Isolation Area		
12:00pm	Hatuash <b>Resource:</b> ExEND announcement and Exercise Materials	ALL	FDNY Hatuash <b>Resource:</b> ExEND announcement and Exercise Materials (Participant Feedback Form, Sign-IN)	ALL	OML	Hatuash <b>Resource:</b> ExEND announcement and Exercise Materials (Participant Feedback Form, Sign-IN)	ALL	Breakthrough Room 2nd Floor	Hatuash <b>Resource:</b> ExEND announcement and Exercise Materials (Participant Feedback Form, Sign-IN)	ALL	Command Center		
1:15pm	Transportation: Shuttle to Bellvue	Lafayette Street Entrance	Exercise Clean Up	ALL	ALL	Transportation: Shuttle to Bellvue	NYCH+H	Front Entrance of Marricania	Transportation: Shuttle to Bellvue	NYCH+H	41st Avenue and 78th Street Entrance		
2:00pm	<b>Lunch</b>												
3:00pm	<b>Debrief</b>												
4:00pm	<b>Closing Remark &amp; Debrief</b>												

# Mystery Patient Drills

## 1. Actor Briefing



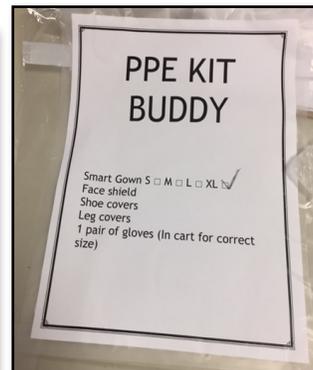
## 3. Transport



0 minutes

60 minutes

## 2. Assessment



## 4. Hotwash



# Mystery Patient Drill Toolkit



[Insert special pathogen name]

## Mystery Patient Drill

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**Exercise Plan**  
[Date]

The Exercise Plan (ExPlan) is to serve as a template to support health care delivery sites for highly infectious disease preparedness and response through exercises. This ExPlan was developed by NYC Health + Hospitals Emergency Management, Special Pathogens Program to provide exercise participants with the necessary tools to conduct Mystery Patient Drills and the flexibility to adapt the exercise to the individualized needs of each facility and varied composition of each local community.

Rev. 2017 508  
HSEEP-0008

### Appendix B: Data Collection Tool

Drill Time Stamps		
Time Stamp (Hours)	Time	Comments
1. Arrival to Registration		
2. Registration to Triage		
3. Patient presentation screens positive for communicable disease		
4. Patient dons mask/hand hygiene (given instructions on how to don mask: YES/NO)		
5. Accompanying staff dons mask/hand hygiene		
6. Triage identification to placement in isolation room or AIR room (once appropriate response)		

### Appendix C: Provider Script

THIS IS AN EXERCISE! THIS IS AN EXERCISE! THIS IS AN EXERCISE! THIS IS AN EXERCISE!

- Please notify YOUR FACILITY'S Infection Prevention and Control - Begin communication with "This is an Exercise" - and call [insert number] to report patient case
- Please call [insert number] simulating the role of the Department of Health Provider Access Line and reviewing patient history below:
  - Begin communication with "This is an Exercise"
  - Ask to speak to a representative of the Department of Health

Provide your clinical hypothesis based on PUI's signs/symptoms and travel history

**Patient History**

History of the Present Illness (HPI): [Set patient illness history, signs and symptoms, country of travel, and other pertinent information as needed]

Example: A previously healthy 21-year-old female international student presents to the ER complaining of general weakness, cough, sore throat and reported experiencing high fever (104 F) and took Tylenol 1 hour before to subside fever, and nausea, which all progressed since trip to Riyadh, Saudi Arabia.

**Environmental and/or Hospital Exposure:** [Set relevant epidemiological linkages to disease]

Example: Initial symptoms of general weakness, productive cough and sore throat appeared on [insert date] while in Riyadh, Saudi Arabia. Patient states she consumed raw camel milk while in Riyadh on [insert date]. She was taken to a local clinic due to GI symptoms and discharged the same day on [insert date].

**Past Medical History:** [Set relevant immunization and past medical history]

Example: Received meningococcal immunization and Yellow Fever vaccine. No malaria chemoprophylaxis was taken. Did not receive Typhoid or Hepatitis vaccines.

**Physical Exam:** [Provide relevant signs, symptoms, and vital signs]

Example: Tachycardic, tachypneic, normotensive, normo-oxygenated, normo-auscultatory lungs, normo-abdominal.

**ED Course:** Call Department of Health Provider Access Line (DH-CaL). Follow instructions as per online medical provider.

**Clinical Impression:** Provide your clinical hypothesis based on patient's signs/symptoms, travel history and any epidemiological linkages to a highly infectious disease(s).

**Disposition:** [Set exercise disposition or Send]

Example: Transfer patient to Regional Isolation and Other Special Pathogen Treatment Center for further care as a Person Under Investigation (PUI) for [insert special pathogen name] after consultation and approval from department of health.

### Appendix D: Analysis of Core Capabilities

Objective	Core Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
Determine the amount of time it takes for [insert facility location name] to identify a patient with [insert special pathogen name] through universal travel screening and triage	Foundation for Health Care and Medical Readiness				
Determine the amount of time it takes for [insert facility location name] to identify a patient with [insert special pathogen name]	Foundation for				

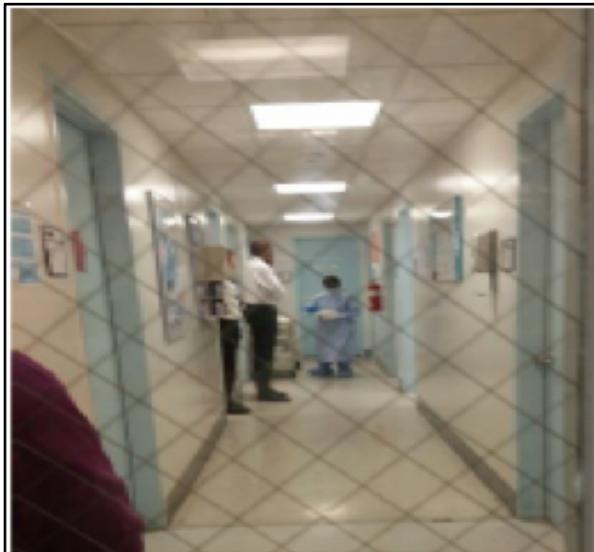
# Bellevue Hospital



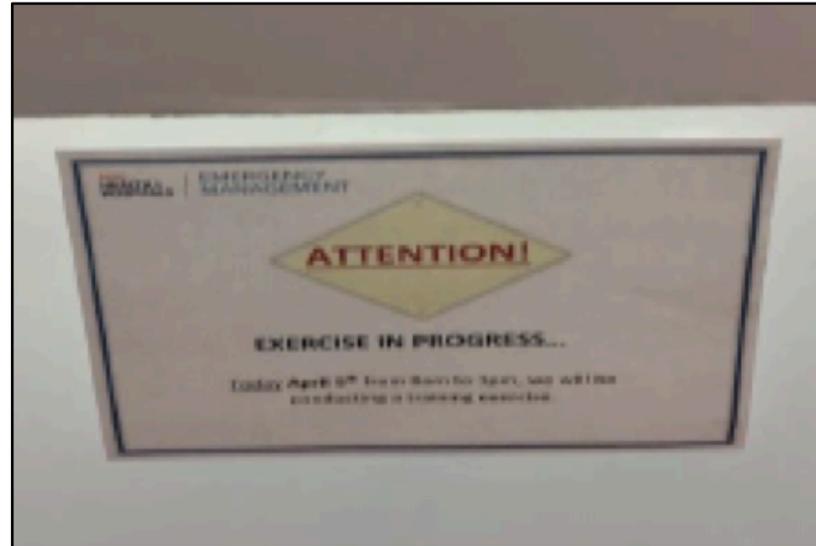
# Elmhurst Hospital



# Morrisania



# Simulation Cell (Central Office)



# Exercise Evaluation

Exercise Evaluation Guide Ebola-Focused System-Wide Virtual Tabletop

Module 1						
Objective 1: Assess Frontline Hospital and Ambulatory Facility's ability to effectively and safely follow the "Identification, Isolation and Preliminary Management Protocol" for PUI. <span style="float: right;">CONOPS page 20</span>						
Organizational Capability Target	Task Completed			Associated Critical Tasks	Evaluator Observation Notes and Explanation of Rating	Target Rating
	YES	NO	Not Observed			
Healthcare System Preparedness	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Relevant exposure history mentioned including exposure criteria of whether the patient has traveled internationally or had contact with an individual with EVD within the previous 21 days.	This was mentioned as part of the scenario. It was discussed that even though there are currently no Ebola travel alerts, since there are other illnesses circulating, a travel history would be taken.	S
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Exposure criteria and signs/symptoms compatible with EVD was mentioned.  These include: fever (subjective or $\geq 100.4^{\circ}\text{F}$ or $38.0^{\circ}\text{C}$ ) or headache, fatigue, weakness, muscle pain, vomiting, diarrhea, abdominal pain, or hemorrhage (bleeding gums, blood in urine, nose bleeds, coffee ground emesis or melena).	Symptoms were provided as part of the scenario. EHC was confident they would be able to identify a Fever/Travel patient. They stated EHC continues with NYSDOH mandated training	
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Procedures to isolate the patient that adhere to the prevention of transmission were discussed (e.g. isolation room, equipment for patient in room, access control).	Though the PUI presented is a pediatric patient, once triaged and suspected fever/travel was determined, the patient would be brought to the Adult ED as that is where their Ebola isolation room is located.	



## NYC Health + Hospitals Special Pathogens Full-Scale Exercise

After-Action Report/Improvement Plan  
April 5, 2017

Evaluate the capabilities of the NBU for the activation and admission of 10 adult patients with MERS-CoV



## Table Top Exercise

- Public health
- Nebraska Public Health Lab
- Nebraska Medicine
- University of Nebraska Medical Center



## Full Scale Exercise

- NBU staff
- Public Health

# Results and Improvement

## Strengths

- Validated activation algorithm including communication plan and supply delivery
- Verified capability to admit 10 patients with an airborne illness
- Strengthened relationships with community partners and supporting departments

## Improvements

- Installation of double doors
- Revised supply checklist
- Updated E2 contact list
- Initiated PPE design improvement process



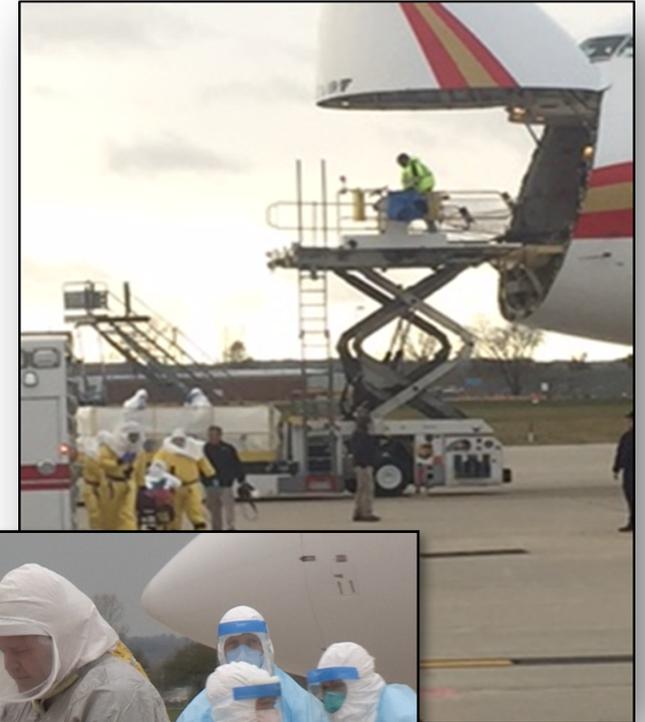
# Tranquil Surge

First international transport exercise in Tranquil series

Multiple agencies - federal, state and local

Internal and External exercise planning committees

- Common person on both committees
- Coordinate objectives and timelines
- Create exercise documents
- Create comprehensive AAR



# Tranquil Surge Objectives

## External Objectives

- Transport logistics
- Transport device evaluation
- Communication coordination

## Internal Objectives

- Communication
  - Staff communication
  - Region 7 CONOPS communication plan between NBU/NDHHS and IHHC/IDPH inclusive of HPP measures 3AB, 4AB, 5AB, 6AB.
- Internal transport SOP for multiple
- patient validation
- Laboratory transport coordination with external vendor



## **Strengthened relationships and collaboration with local EMS providers**

- Omaha Fire, Papillion Fire, Bellevue Fire
  - Secondary training related to isopod use and review of donning/doffing protocols
  - Exercised decompensating patient en route incorporating and clarified level of care expectations

## **Identified work flow process improvements related to multiple patient admissions, EMS doffing, waste processing and communication**

- Revised protocol for autoclave operator doffing procedure
- Revised in unit waste transportation protocol and currently researching equipment options.
- Revised internal and external transport SOPs related to multiple patient admissions
- Revised the in Unit communications plan incorporating new A/V equipment and expanding the use of in room intercom/call light systems
- Created standardized form for inter-facility and transport report

Second international transport exercise in the Tranquil series

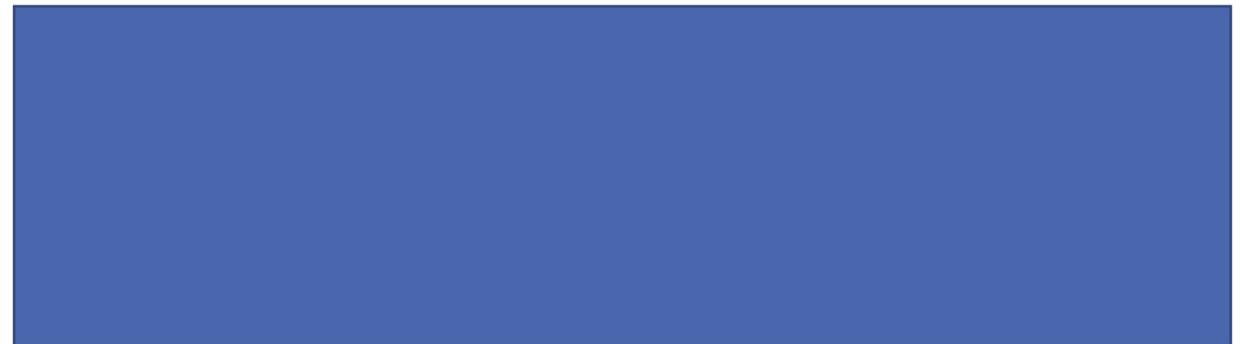
Included adult and pediatric patients

Murphy's Law prevails

- Wind speeds >40mph
- Mechanical difficulty with planes
- COMMUNICATION

Significant changes to patient reception & transport

- Independent transport versus caravan
- EMS doffing procedure for multiple simultaneous admissions



## Hotwash

- Team felt empowered to identify positive and negative items
- Open communication
- Fresh feedback

## After Action Report Conference

- Revision of multiple patient transport SOP-implementation of Time Out prior to entering elevator
- Validation of Region VII CONOPS
- Revision of clinical communications tool
- Include local EMS in more collaborative exercises

## 6 End-users

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

## 2 Exercise Types

- Discussion-based
- Operations-based

## 2 Exercise Options

- Ebola
- Other Special Pathogens (airborne)

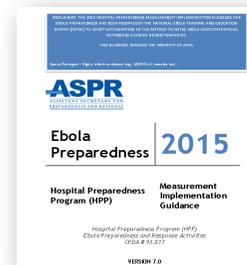
**Table 1: Airborne Transmissible Disease Selection**

- Middle Eastern Respiratory Syndrome Coronavirus (MERS-CoV)
- Severe Acute Respiratory Syndrome (SARS)
- Highly Pathogenic Avian Influenza (HPAI)

\*This is not an exhaustive list. Other airborne diseases may be substituted.

Fully customizable to meet each end users unique requirements

Option to choose any single airborne-transmissible pathogen and proceed expeditiously



Directly map to specific measures in the ASPR HPP Ebola Preparedness Measurement Implementation Guidance

## Special consideration sections:

- Surge management
- Laboratory support services
- Waste management
- Care of a pediatric patient
- Decedent management
- Care of a labor/delivery patient
- Diagnostic Radiological Imaging
- Surgical Intervention

Built-in injects throughout for further food-for-thought

## Based on HSEEP Model:

- Situation Manual/Exercise Plan
- Exercise Schedule
- After Action Report and Improvement Plan
- Participant Feedback Form and more

### Improvement Plan

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

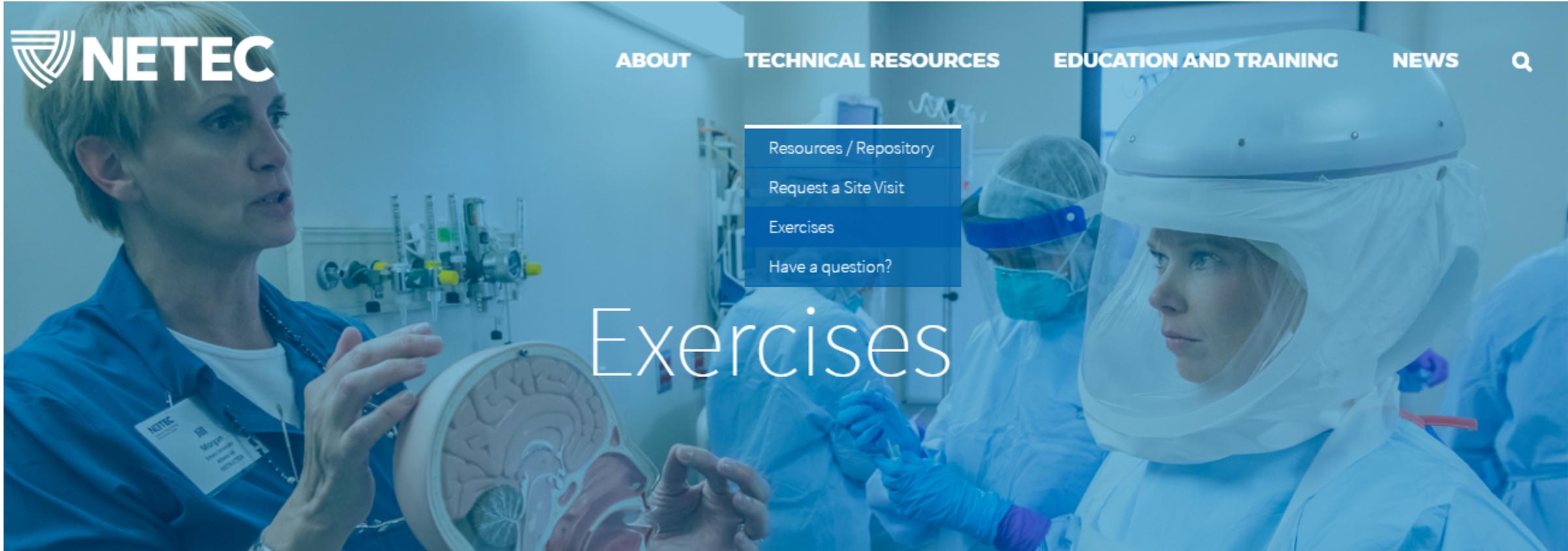
Target Capability	Issue/Area for Improvement	Corrective Action	Capability Element <sup>2</sup>	Primary Responsible Organization	Organization POC	Start Date	Completion Date
Target Capability 1 [Capability Name]	1. [Area for Improvement]	[Corrective Action 1]					
		[Corrective Action 2]					
		[Corrective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

<sup>2</sup> Capability Elements are: Planning, Organization, Equipment, Training, or Exercise.

### 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"> <li>• Participant Introductions (Players, Facilitator(s), Evaluators, Observers)</li> <li>• Exercise Overview                             <ul style="list-style-type: none"> <li>– Agenda</li> <li>– Guidelines</li> <li>– Assumptions and Artificialities</li> <li>– Evaluation</li> </ul> </li> </ul>
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"> <li>• Module 1</li> <li>• Module 2</li> <li>• Module 3</li> </ul>
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"> <li>• Module 1</li> <li>• Module 2</li> </ul>
120 minutes	Exercise 3: Planning for Special Considerations for State-Designated Ebola Treatment Center <ul style="list-style-type: none"> <li>• Module 1</li> <li>• Module 2</li> <li>• Module 3</li> <li>• Module 4</li> <li>• Module 5</li> <li>• Module 6</li> </ul>
30 minutes	Hot Wash/Closing Remarks/Participant Feedback Forms
Varies	Facilitator/Evaluator Debrief

# Demonstration of Templates



[NETEC.ORG/EXERCISES](https://NETEC.ORG/EXERCISES)

NETEC offers Exercise Technical Assistance from HSEEP exercise design and development subject matter experts including:

Onsite exercise assistance  
(e.g., observer, evaluator)

Remote technical assistance  
(e.g., exercise development)



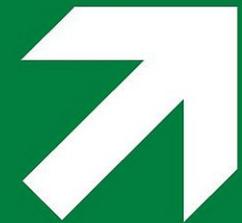
## Facilitators:

Nicholas Cagliuso,  
Syrá Madad,  
Shelly Schwedhelm,  
Sonia Bell,  
Amanda Grindle



**Best Practices**

**Next  
Exit**



# Workshop Scenario

