Access the recorded webinar here:
https://register.gotowebinar.com/recording/8848224572376907011?assets=true

Access speaker bios here:
https://files.asprtracie.hhs.gov/documents/tracie-netec-highly-pathogenic-resources-webinar-speaker-bios.pdf

TRACIE
HEALTHCARE EMERGENCY PREPAREDNESS INFORMATION GATEWAY

Highly Pathogenic Infectious Disease Training and Exercise Resources Webinar

March 5, 2020

ASPR
ASSISTANT SECRETARY FOR PREPAREDNESS AND RESPONSE

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- Unpublished and SME peer-reviewed materials highlighting real-life tools and experiences

asprtracie.hhs.gov

- Personalized support and responses to requests for information and technical assistance
- Accessible by toll-free number (1844-5-TRACIE), email (askasprtracie@hhs.gov), or web form (ASPRtracie.hhs.gov)

1-844-5-TRACIE

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

askasprtracie@hhs.gov

https://asprtracie.hhs.gov/infectious-disease

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HEALTHCARE EMERGENCY PREPAREDNESS INFORMATION GATEWAY

Richard Hunt, MD
Senior Medical Advisor, Division of National Healthcare Preparedness Programs, ASPR

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HEALTHCARE EMERGENCY PREPAREDNESS INFORMATION GATEWAY

John Hick, MD
Hennepin Healthcare & ASPR Moderator

ASPR

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Webinar Objectives/ Setting Stage

- Seventh joint ASPR TRACIE and NETEC webinar discussing resources, lessons learned, best practices, and key considerations when conducting a training or exercise related to highly infectious diseases
- This webinar features:
  - Discussion-based and operations-based exercises related to Ebola or other special pathogens
  - Exercise templates for Regional Ebola & Other Special Pathogen Treatment Centers and Regional Partners

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HEALTHCARE EMERGENCY PREPAREDNESS INFORMATION GATEWAY

Michelle Schwedhelm, MSN, RN, NEA-BC
Executive Director, Emergency Management & Biopreparedness, Nebraska Medical Center; Program Director, NETEC

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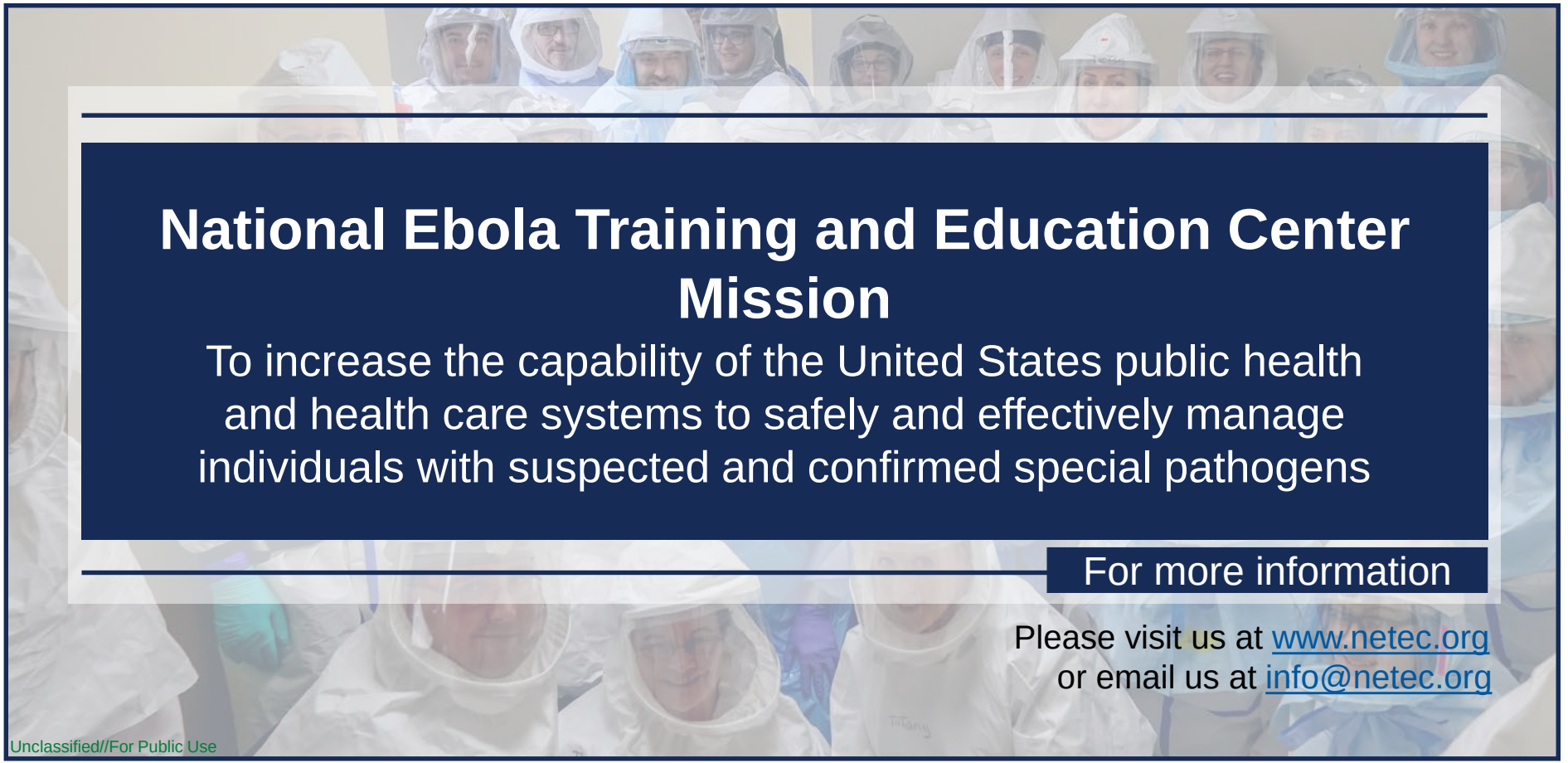

National Ebola Training and Education Center Mission

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

For more information

Please visit us at www.netec.org
or email us at info@netec.org

Role of NETEC

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

NETEC Overview

NETEC

Assessment

Empower hospitals to gauge their readiness using **Self-Assessment**

Measure facility and healthcare worker readiness using **Metrics**

Provide direct feedback to hospitals via **On-Site Assessment**

Education

Provide self-paced education through **Online Trainings**

Deliver didactic and hands-on simulation training via **In-Person Courses**

Technical Assistance

Onsite & Remote Guidance

Compile **Online Repository** of tools and resources

Develop customizable **Exercise Templates** based on the HSEEP model

Provide **Emergency On-Call Mobilization**

Research Network

Online Repository
Built for rapid implementation of clinical research protocols

Develop Policies, Procedures and Data Capture Tools
to facilitate research

Create infrastructure for a **Specimen Biorepository**

Cross-Cutting, Supportive Activities

NETEC Resources

NETEC eLearning Center	NETEC Just-in-time videos
courses.netec.org	YouTube: The NETEC

Join the Conversation!


theNETEC


@theNETEC


@the_NETEC


theNETEC

Use hashtag: **#NETEC**

Website	Repository	Email
netec.org	repository.netecweb.org	info@netec.org

NETEC Resources

Technical Assistance

Onsite & Remote Guidance

Develop customizable
Exercise Templates
based on the HSEEP model

Provide
Emergency On-Call Mobilization

Curate
Online Repository
of tools and resources

repository.netecweb.org

NETEC Resources

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Explore our repository for vital information

NETEC Resources

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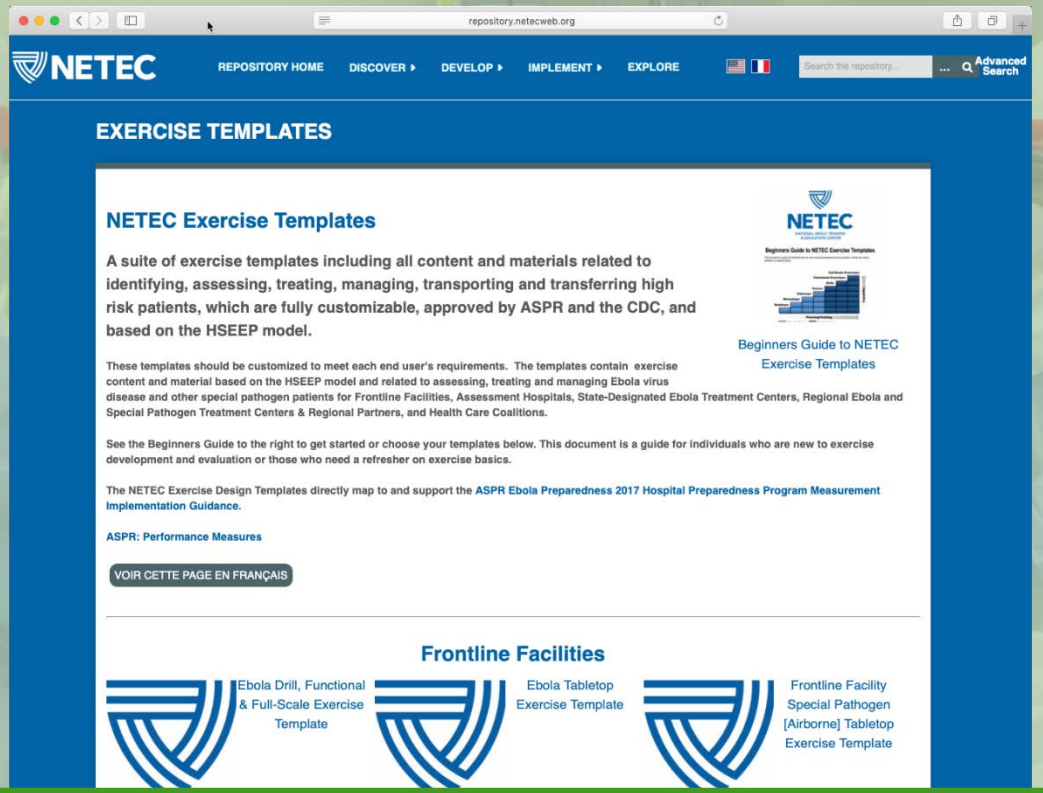

Access NETEC exercise templates

NETEC Resources

NETEC

COVID-19

Dashboard

Key Updates

CDC & WHO Guidance

Training Resources

Preparedness Resources

COVID-19 Resources

NETEC Resources

NETEC

COVID-19

Dashboard

Key Updates

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Preparedness Resources

Key updates:

- On January 30, the World Health Organization determined the rapidly spreading outbreak constitutes a Public Health Emergency of International Concern. On January 31, 2020, the U.S. Department of State issued a travel advisory, Level 4: Do not travel to China due to the novel coronavirus first identified in Wuhan, China. On February 19, 2020 the CDC issued travel health notices for Hong Kong and Japan at Level 1: Watch. On February 20, 2020 the U.S. Department of State issued a travel advisory for Hong Kong, Level 2: Exercise Increased Caution, due to the novel coronavirus first identified in Wuhan, China (COVID-19) (U.S. Department of State).

- On January 27, 2020, CDC again updated its interim travel health notice for this destination to provide information to people who may be traveling to Wuhan City and who may get sick. The travel notice was raised to a Level 3: Avoid Nonessential Travel advising travelers that the CDC recommends that travelers avoid all nonessential travel to China (CDC).

- On 10 January, WHO published a range of interim guidance for all countries on how they can prepare for this virus, including how to monitor for sick people, test samples, treat patients, control infection in health centres, maintain the right supplies, and communicate with the public about this new virus (WHO). The CDC is continuing to publish updated guidance on the evaluation of Patients Under Investigation (PUI) for COVID-19 (CDC).

- On 31 December 2019, the WHO China Country Office was informed of cases of pneumonia of unknown etiology (unknown cause) detected in Wuhan City, Hubei Province of China. A novel coronavirus (2019-nCoV) was identified as the causative virus by Chinese authorities on 7 January (WHO).

CDC and WHO Guidance

Q&A on coronaviruses

Criteria to Guide Evaluation of Patients Under Investigation (PUI) for 2019-nCoV

Interim Healthcare Infection Prevention and Control Recommendations for PUIs for 2019-nCoV

NETEC Resources

NETEC

COVID-19

Dashboard

Key Updates

CDC & WHO Guidance

Training Resources

Preparedness Resources

COVID-19 Resources

NETEC Resources

NETEC

COVID-19

Dashboard

Key Updates

CDC & WHO Guidance

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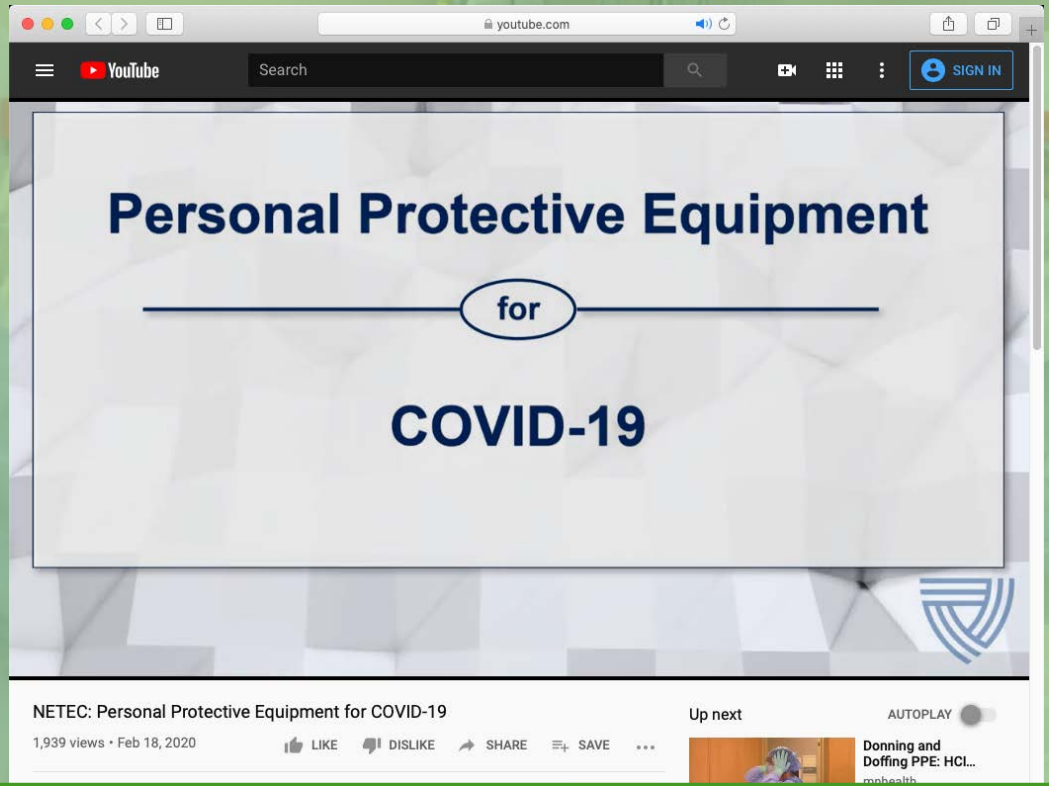
Preparedness Resources



YouTube

NETEC Resources

COVID-19

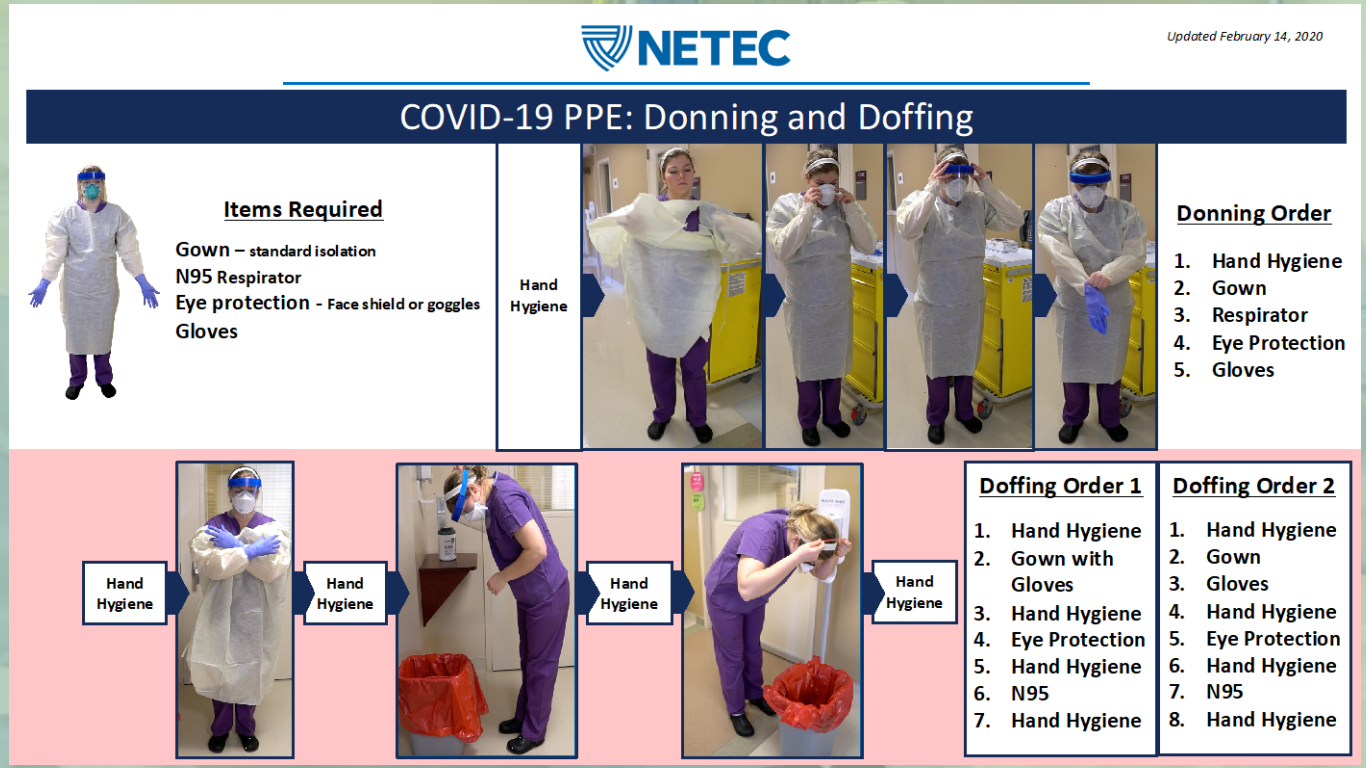
Dashboard

Key Updates

CDC & WHO Guidance

Training Resources

Preparedness Resources



Downloadable Resources

NETEC is Here to Help

NETEC will continue to build resources, develop online education, and deliver technical training to meet the needs of our partners

Ask for help!

- Send questions to info@netec.org - they will be answered by NETEC SMEs
- Submit a Technical Assistance request at NETEC.org

Resources for COVID-19

Additional Resources

- NETEC COVID-19 Information
  - https://repository.netecweb.org/exhibits/show/ncov/ncov
- CDC
  - https://www.cdc.gov/novelcoronavirus
- WHO
  - https://www.who.int/westernpacific/emergencies/novel-coronavirus

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HEALTHCARE EMERGENCY PREPAREDNESS INFORMATION GATEWAY

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

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NEW Emergency Management Online Course

- Elements of Discussion-Based and Operations-Based Exercises for Ebola and Other Special Pathogens
  - Homeland Security Exercise and Evaluation Program (HSEEP) overview
  - Develop, conduct & evaluate exercises
  - After Action Report / Improvement Plan (AAR / IP) process
- CEUs
  - 1.15
- courses.netec.org

Why Exercise?

- Ready or not, patients will present
- Practice makes…permanent (Dale Carnegie)
- Practice (Merriam-Webster)
  - Exercise (skill(s)) repeatedly to improve proficiency

Homeland Security Exercise and Evaluation Program (HSEEP)

- Set of fundamental principles for exercise programs
- Common approach
  - Program management
  - Design & development
  - Conduct, evaluation & improvement planning
- Updated, January 2020

Exercise Types

- Discussion-Based
  - Workshops
  - Tabletops (TTX)
- Operations-Based
  - Functional
  - Full-Scale (FSE)

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HEALTHCARE EMERGENCY PREPAREDNESS INFORMATION GATEWAY

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Discussion-based Exercises

- Seminars
- Workshops
- Games/Simulations
- **Tabletops (TTX)**

Ten Steps to Exercise Design/Development

1) Establish exercise planning team
2) Assess needs
3) Define scope & purpose statement
4) Define objectives
5) Compose scenario
6) Determine major and detailed scenario events
7) List expected actions
8) Develop pre-exercise materials
9) Conduct Exercise
10) Evaluate Exercise

- Using the example of the current COVID epidemic, lets create a high level TTX

1. Establish Exercise Planning Team

- Planning an exercise requires a different tasks from designing the exercise to facilitating, and evaluating
- Exercise Planning Team should be composed of a multidisciplinary team who will be responsible for:
  - 1. Developing exercise objectives, scenario, sequence of events
  - 2. Develop pre-exercise materials
  - 3. Help conduct pre-exercise training sessions
  - 4. Help determine exercise participants, evaluators, facilitator(s)

2. Assess Needs

- What needs assessments are already done in your facility, community, or jurisdiction for infection control and public health?
- Utilize existing emergency management structures or meetings to determine the needs of your local partners.
- Survey or interview partners.

3. Define Scope & Purpose Statement

- Put realistic limits to exercise. You can't practice all operations in the context of all hazards using all agencies in an area that includes all possibilities

- Purpose statement will flow from scope and encompass the global issue to be exercised.

4. Define Objectives

- A description of the performance expected from the participants that will demonstrate their competence
- S.M.A.R.T.
  - Specific
  - Measurable
  - Achievable
  - Relevant
  - Time-bound

SMART Guidelines for Exercise Objectives	
Specific	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.
Measurable	Objectives should include numeric or descriptive measures that define quantity, quality, cost, etc. Their focus should be on observable actions and outcomes.
Achievable	Objectives should be within the control, influence, and resources of exercise play and participant actions.
Relevant	Objectives should be instrumental to the mission of the organization and link to its goals or strategic intent.
Time-bound	A specified and reasonable timeframe should be incorporated into all objectives.

5. Compose Scenario

- Who?
- What?
- Where?
- When?
- How?
- Why?

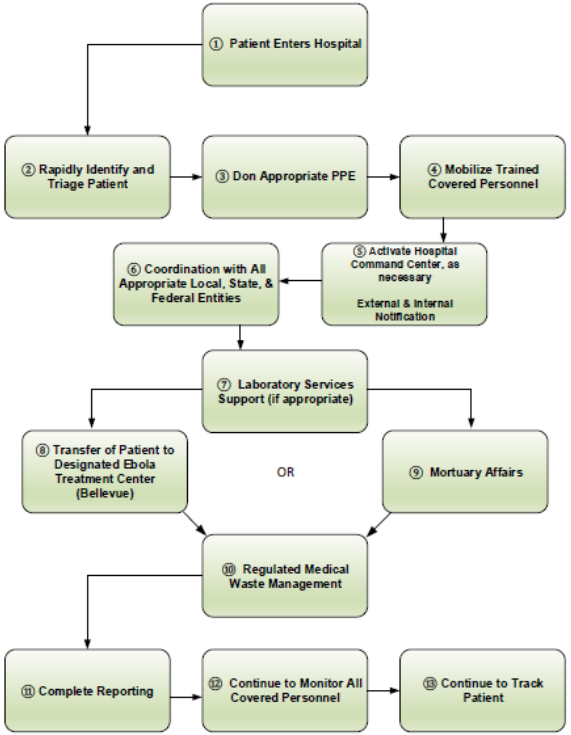
6. Determine Major & Detailed Events

- 0800 patient arrives in Emergency Department.
- 0805 patient is asked about fever/cough/rash and asked to put on mask and perform hand hygiene by triage nurse.
- 0808 patient is asked about travel or contact
- 0810 patient is isolated in prepared negative airflow room by triage nurse and ID team is notified.
- 0815 local health department is notified of patient.
- And so on…

- Based on the major and detailed events that have been identified, develop discussion questions that can be presented at the tabletop exercise.

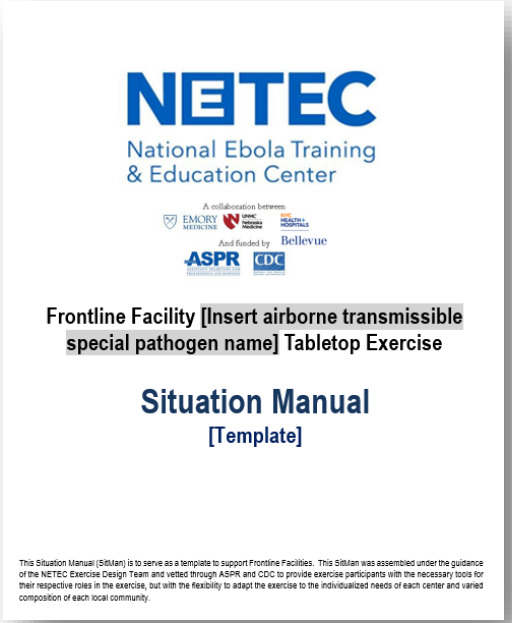
7. List Expected Actions

- Triage nurse asks appropriate travel history questions and escorts patient to the prepared negative airflow room.
- Nurse escalates clinically.
- Clinicians don appropriate PPE to perform patient assessment.
- Clinician contacts ICP/ID team as per protocol.
- Clinician makes internal and external notifications as per protocol.



8. Develop Pre- Exercise Materials

- Situation Manual (SitMan)
- Exercise Evaluation Guides (EEG)
- PowerPoint Presentation (as needed)
- Player training and orientation
- Facilitator orientation
- Evaluator orientation
- Other preparation


NETEC
National Ebola Training & Education Center
A collaboration between
EMORY MEDICINE
And funded by
Bellevue
ASPR
CDC
Frontline Facility [Insert airborne transmissible special pathogen name] Tabletop Exercise
Situation Manual
[Template]
This Situation Manual (SitMan) is to serve as a template to support Frontline Facilities. This SitMan was assembled under the guidance of the NETEC Exercise Design Team and vetted through ASPR and CDC to provide exercise participants with the necessary tools for their respective roles in the exercise, but with the flexibility to adapt the exercise to the individualized needs of each center and varied composition of each local community.

9. Conduct Exercise

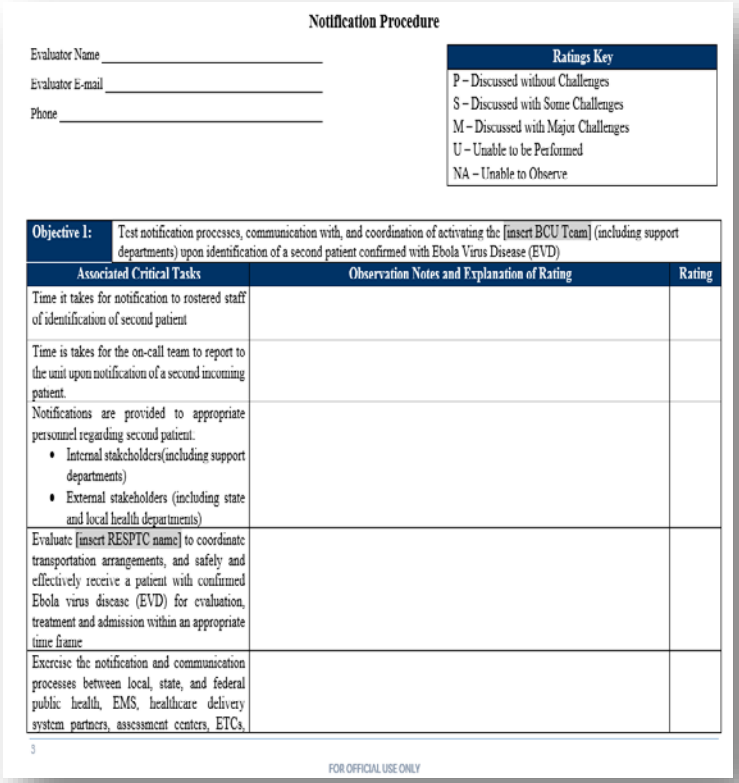
Methodologies:

- Plenary
  - Conducted in large room
  - Active facilitation
  - No small group discussions

- Breakout
  - Divided into small groups
  - Players grouped by role/function/responsibility

10. Evaluate Exercise

- Conduct hot wash
- Collect exercise evaluation guides (EEGs)
  - Rate exercise objectives and associated critical task
- Assists in the development of the After Action Report



Notification Procedure

Evaluator Name _____

Evaluator E-mail _____

Phone _____

Ratings Key
P – Discussed without Challenges
S – Discussed with Some Challenges
M – Discussed with Major Challenges
U – Unable to be Performed
NA – Unable to Observe

Objective 1:	Test notification processes, communication with, and coordination of activating the [insert BCU Team] (including support departments) upon identification of a second patient confirmed with Ebola Virus Disease (EVD)	
Associated Critical Tasks	**Observation Notes and Explanation of Rating**	**Rating**
Time it takes for notification to rostered staff of identification of second patient		
Time is takes for the on-call team to report to the unit upon notification of a second incoming patient.		
Notifications are provided to appropriate personnel regarding second patient: • Internal stakeholders(including support departments) • External stakeholders (including state and local health departments)		
Evaluate [insert RESPTC name] to coordinate transportation arrangements, and safely and effectively receive a patient with confirmed Ebola virus disease (EVD) for evaluation, treatment and admission within an appropriate time frame		
Exercise the notification and communication processes between local, state, and federal public health, EMS, healthcare delivery system partners, assessment centers, ETCs,		

3

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HEALTHCARE EMERGENCY PREPAREDNESS INFORMATION GATEWAY

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Associate Professor of Emergency Medicine, Harvard Medical School

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Using Operations-Based Exercises

- Two main types of operations-based exercises:
  - Functional Exercises
  - Full-Scale Exercises
  - Drills also count

Functional Exercises

- Test participants' ability to command and communicate in an emergency or other unusual event
  - Typically focus on the decisions, actions, and communications of Command Staff and other leaders in an incident
  - Conducted to test a hospital's, or a community's, ability to share information and to respond together effectively and in a coordinated fashion using the procedures and systems available to them for information-sharing

Functional Exercises

- Common HCID functional exercises may include:
  - Communications between an emergency department and hospital leadership and/or public health officials about how best to manage a patient who has been identified to possibly have an HCID
  - Communications between hospital leaders and/or public health officials and others after a patient with an HCID has been identified and when the patient requires transfer to an Assessment Hospital or a Treatment Hospital
  - Communications among leaders from sending and receiving hospitals, EMS, public health, and others, when a patient with an HCID is being transferred from one hospital to another

Full Scale Exercises

- Typically the most realistic and the most complex of the different kinds of exercises
- Common HCID scenarios that might be tested in a Full-Scale Exercise may include:
  - Arrival of an unannounced patient with HCID symptoms and risk factors of exposure to a hospital or other health care setting
  - Clinical assessment and provision of care for a patient with a suspected or confirmed HCID in an emergency department or specialized care unit
  - Performance of essential laboratory tests to support diagnosis and care for a patient with a suspected or confirmed HCID
  - Management and disposal of waste generated from the care of a patient with a suspected or confirmed HCID
  - Physical transfer of a patient with a suspected or confirmed HCID from one hospital to another

The Exercise Planning Process

- Always begin with the creation of a planning team
- One member should have experience with exercises
- Team needs sufficient expertise to be able to represent the differing departments, institutions, and/or agencies that will be asked to participate in the exercise
- At least one team member should have sufficient expert knowledge to create a realistic and plausible scenario

The Exercise Planning Process

- There are three important documents that support an operations-based exercise:
  - The Exercise Plan, or ExPlan
  - The Controller and Evaluator (C/E) Handbook
  - The Master Scenario Events List (MSEL)

NETEC exercise templates are available to help hospitals and others develop these exercise documents

Setting Objectives

- The planning team should also clearly define what is “in scope” and “out of scope” for their exercise
- As a general rule of thumb, it is advisable to have between 5 and 10 objectives for an operations-based exercise

Evaluating Exercise Outcomes

- The evaluation plan should be designed at the *beginning* of the exercise planning process.
  - Sufficient numbers of evaluators to observe and document exercise play are essential
  - If evaluators are asked to monitor too many actions at once, or if they are asked to evaluate functions in different physical areas, there is again a chance that important observations will be missed
  - Evaluators should be given appropriate tools to support their work

Simulating the Scenario

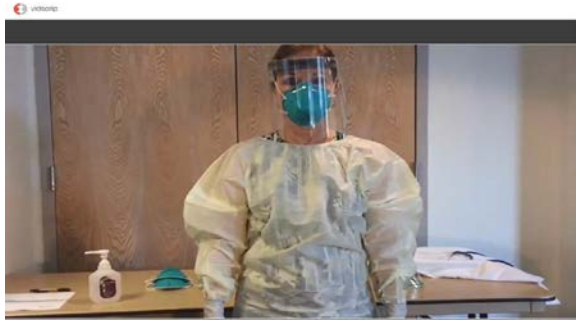
- Mannikins, medical simulators and actors can all be used when needed
  - Actors should be given clear guidelines on what they can and cannot do and say
  - Exercise players should understand the limits of what medical care and interventions they can provide for the patient, including undressing the patient, performing an exam, and performing procedures
  - If simulated body fluids are to be used to test the participants' skills in cleaning, it is often much easier to use these fluids with a mannequin or a simulator instead of with a live actor.

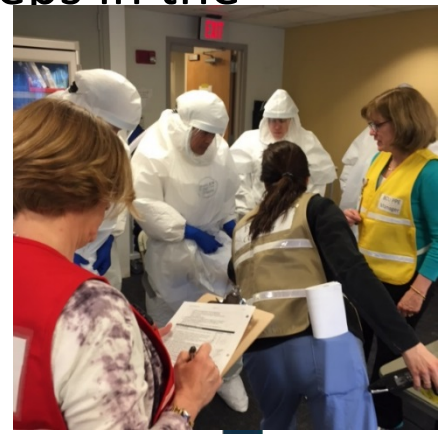
Simulating the Scenario

- Hospitals can practice in actual clinical spaces, mockup sites, or training rooms
  - Effective exercise mockup space should endeavor to exactly mimic the layout and equipment in the real clinical environment

Conducting the Exercise

- Staff *must* don and doff their PPE as they would in a real event
  - Utilize usual checklists and procedures for the hospital, and ensure that no players skip steps in the doffing of PPE in an exercise



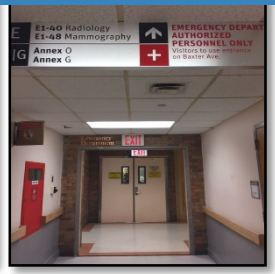


After-Action Reporting

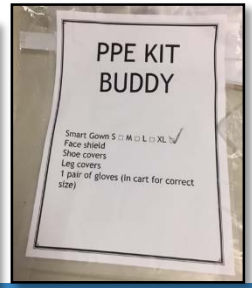
- Every exercise should result in an after-action report (AAR) and an improvement plan (IP).
  - AARs are typically organized according to the objectives of the exercise and the capabilities tested.
  - The Improvement Plan lists all of the changes that are expected to follow conduct of the exercise, and also lists who is responsible for making each change requested.
  - Tracking all of the IP items listed can ensure that preparedness and response for HCIDs improves with each successive exercise

Special Pathogen Mystery Patient Drills

1. Actor Briefing



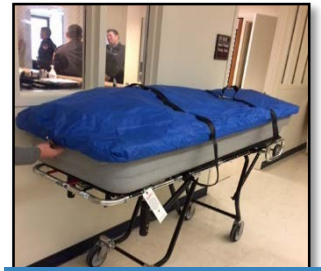
2. Assessment

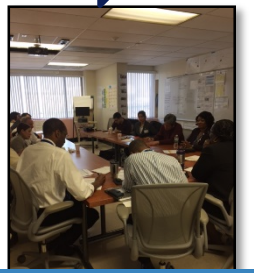


0 minutes — 60 minutes

3. Transport

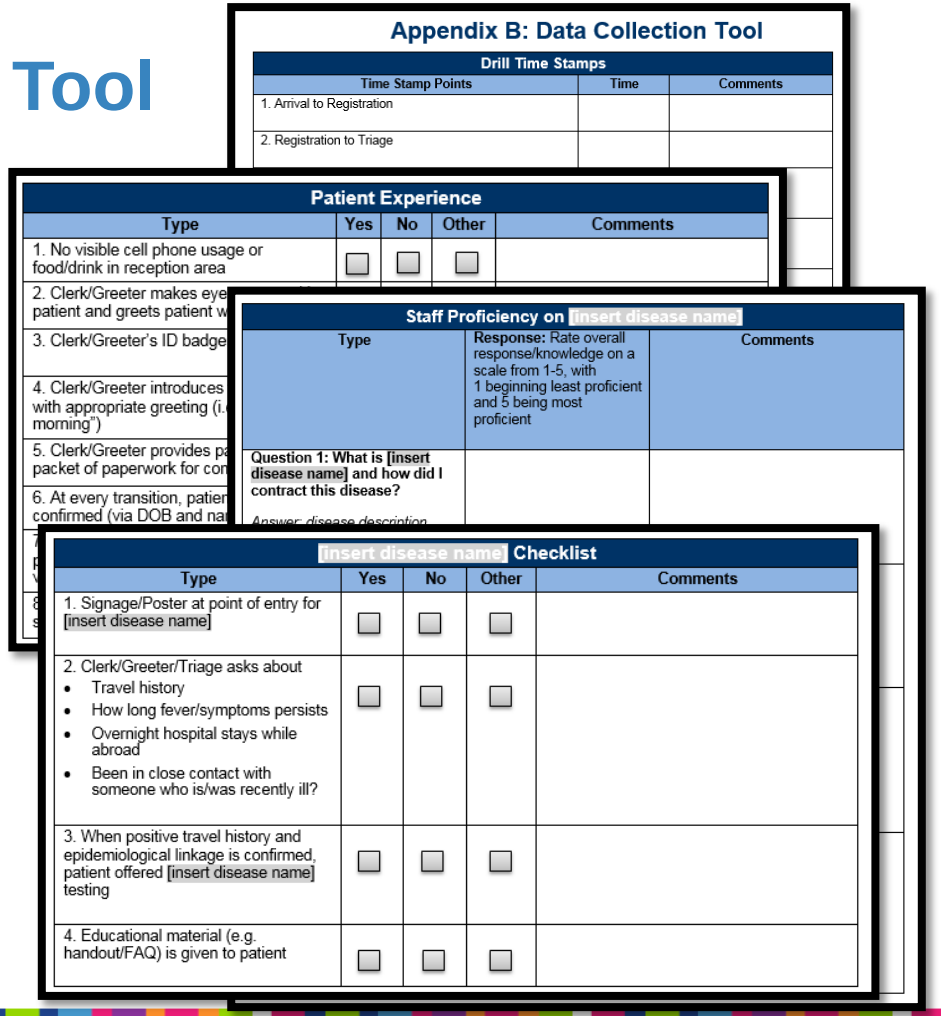
4. Hotwash





Data Collection Tool

- Drill Time Stamps
- Disease-specific Checklist
- Staff Proficiency on “x” Disease
- Patient Experience



Appendix B: Data Collection Tool

Drill Time Stamps		
Time Stamp Points	Time	Comments
1. Arrival to Registration		
2. Registration to Triage		

Patient Experience

Type	Yes	No	Other	Comments
1. No visible cell phone usage or food/drink in reception area	☐	☐	☐	
2. Clerk/Greeter makes eye				
3. Clerk/Greeter's ID badge				
4. Clerk/Greeter introduces with appropriate greeting (i. morning")				
5. Clerk/Greeter provides pa packet of paperwork for cor				
6. At every transition, patien confirmed (via DOB and na				

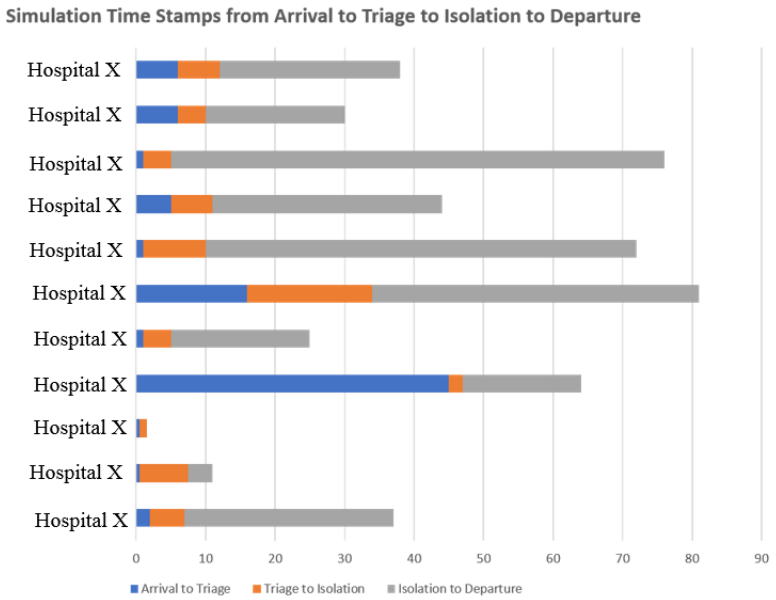
Staff Proficiency on [insert disease name]

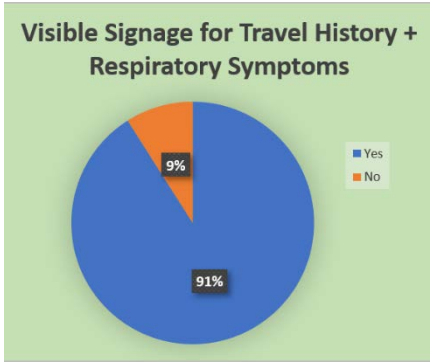
Type	Response: Rate overall response/knowledge on a scale from 1-5, with 1 beginning least proficient and 5 being most proficient	Comments
Question 1: What is [insert disease name] and how did I contract this disease? *Answer: disease description*		

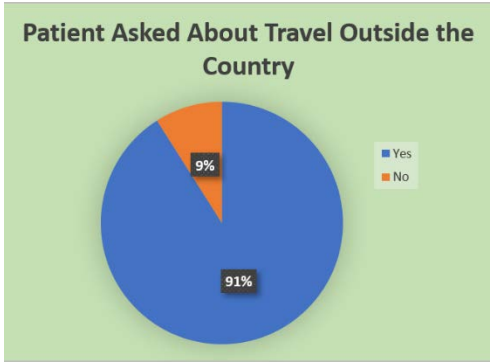
[insert disease name] Checklist

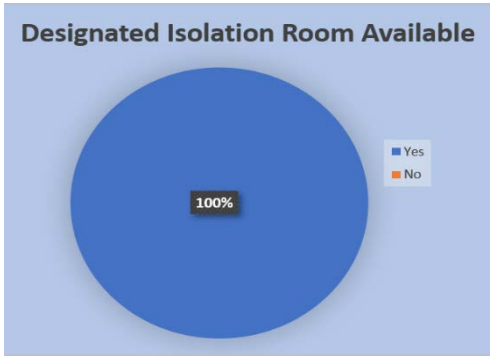
Type	Yes	No	Other	Comments
1. Signage/Poster at point of entry for [insert disease name]	☐	☐	☐	
2. Clerk/Greeter/Triage asks about • Travel history • How long fever/symptoms persists • Overnight hospital stays while abroad • Been in close contact with someone who is/was recently ill?	☐	☐	☐	
3. When positive travel history and epidemiological linkage is confirmed, patient offered [insert disease name] testing	☐	☐	☐	
4. Educational material (e.g. handout/FAQ) is given to patient	☐	☐	☐	

Example: Mystery Patient Drills for COVID-19









NETEC Exercise Resources

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)

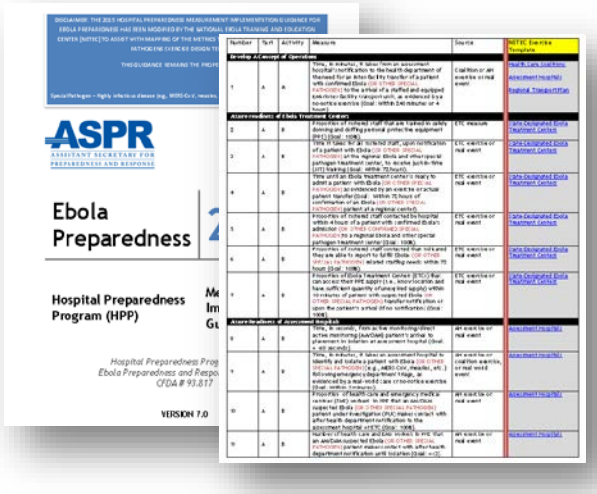
NETEC Exercise Templates

- 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

Table 1: Airborne Transmissible Disease Selection

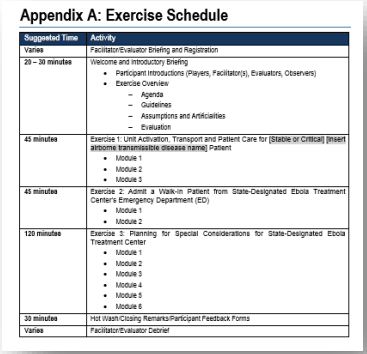
- Middle Eastern Respiratory Syndrome Coronavirus (MERS-CoV)
- Severe Acute Respiratory Syndrome (SARS)
- Highly Pathogenic Avian Influenza (HPAI)

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



NETEC Exercise Templates

- Special consideration sections:
  - Surge management
  - Laboratory support services
  - Waste management
  - Care of a pediatric patient
  - Decedent management
  - Care of a labor/delivery patient

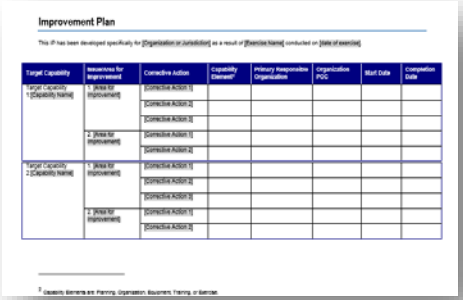


Appendix A: Exercise Schedule

Suggested Time	Activity
Varies	Facilitator/Evaluator Briefing and Registration
20 – 30 minutes	Welcome and Introductory Briefing • Participant Introductions (Players, Facilitator(s), Evaluators, Observers) • Exercise Overview – 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 • 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) • Module 1 • Module 2
120 minutes	Exercise 3: Planning for Special Considerations for State-Designated Ebola Treatment Center • Module 1 • Module 2 • Module 3 • Module 4 • Module 5 • Module 6
30 minutes	Hot Wash/Closing Remarks/Participant Feedback Forms
Varies	Facilitator/Evaluator Debrief

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

- Based on HSEEP-model:
  - Situation Manual/Exercise Plan
  - Exercise Schedule
  - After Action Report
  - 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*	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]					

* Capability Elements are: Planning, Organization, Equipment, Training, or Exercises

NETEC Exercise Resources

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

TRACIE

HEALTHCARE EMERGENCY PREPAREDNESS INFORMATION GATEWAY

Moderator Roundtable
John Hick, MD

ASPR

ASSISTANT SECRETARY FOR PREPAREDNESS AND RESPONSE

Question & Answer

For Additional Support

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

- Contact your NHPP Field Project Officers
- Contact ASPR TRACIE

ASPRtracie.hhs.gov

1-844-5-TRACIE

askasprtracie@hhs.gov