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



Highly Pathogenic Infectious Disease Training and Exercise Resources Webinar

March 5, 2020



ASPR TRACIE: Three Domains



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- Unpublished and SME peer-reviewed materials highlighting real-life tools and experiences





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





- 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



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





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





John Hick, MD
Hennepin Healthcare & ASPR Moderator



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





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





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



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 handson 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 eLearning Center

courses.netec.org

NETEC Just-in-time videos

YouTube: The NETEC

Join the Conversation!









Use hashtag: #NETEC

Website

Repository

Email

netec.org

repository.netecweb.org

info@netec.org



Technical Assistance

Onsite & Remote Guidance

Develop customizable

Exercise Templates
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Technical Assistance

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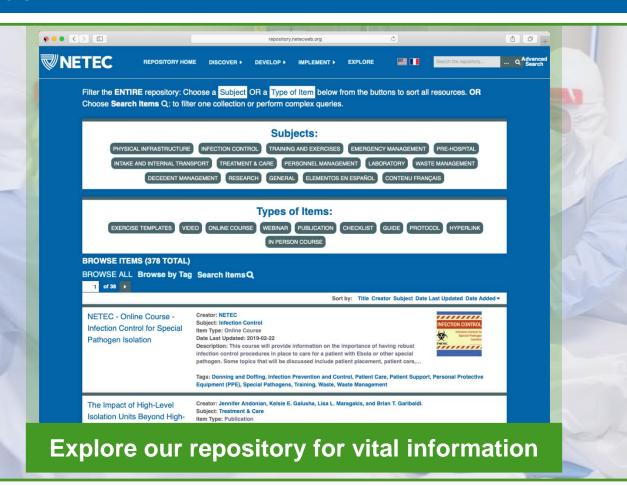
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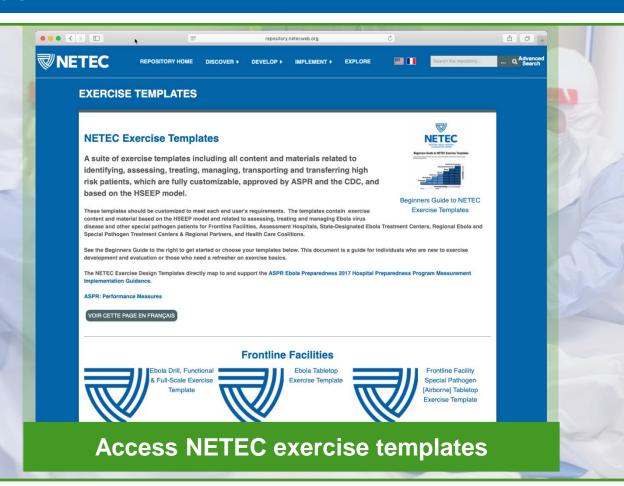
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COVID-19

Dashboard

Key Updates

CDC & WHO Guidance

Training Resources

Preparedness Resources





COVID-19

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Key Updates

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Preparedness Resources

Unclassified//For Public Use

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 <u>a travel advisory</u>, 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 <u>Hong Kong</u> and <u>Japan</u> at Level 1: Watch. On February 20, 2020 the U.S. Department of State issued a <u>travel</u>
 <u>advisory for Hong Kong</u>, Level 2: Exercise Increased Caution, due to the novel coronavirus first identified in Wuhan, China (COVID-19) (<u>U.S. Department of State</u>).
- 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 <u>was informed</u> of cases of pneumonia of unknown etiology (unknown cause) detected in Wuhan City, Hubei Province of China. A novel coronavirus (2019-nCoV) <u>was identified</u> as the causative virus by Chinese authorities on 7 January (<u>WHO</u>).

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



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Dashboard

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Preparedness Resources • • • < > E **◄**1) ♂ SIGN IN ## YouTube Search **Personal Protective Equipment** for COVID-19 NETEC: Personal Protective Equipment for COVID-19 Up next AUTOPLAY (1.939 views • Feb 18, 2020 in LIKE ■ DISLIKE → SHARE = SAVE ... Donning and Doffing PPE: HCI... YouTube



COVID-19

Dashboard

Key Updates

CDC & WHO Guidance

Training Resources

Preparedness Resources



Updated February 14, 2020

COVID-19 PPE: Donning and Doffing



Items Required

Gown - standard isolation N95 Respirator Eye protection - Face shield or goggles Gloves







Donning Order

- Hand Hygiene
- Gown
- Respirator
- Eye Protection
- Gloves







Hand Hygiene



Hand

Hygiene

Doffing Order 1

- Hand Hygiene
- Gown with Gloves
- Hand Hygiene
- Eye Protection
- Hand Hygiene
- N95
- Hand Hygiene

Doffing Order 2

- **Hand Hygiene**
- Gown
- Gloves
- **Hand Hygiene**
- **Eye Protection**
- **Hand Hygiene**
- N95
- **Hand Hygiene**

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 <u>info@netec.org</u> 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



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





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)



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





Discussion-based Exercises

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



Ten Steps to Exercise Design/Development



- Establish exercise planning team
- Assess needs
- 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?





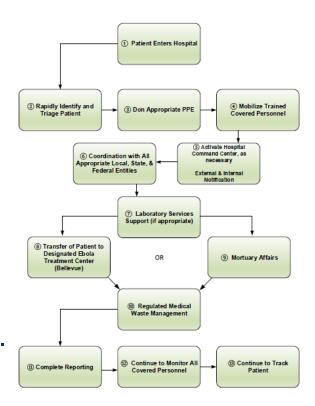
6. Determine Major & Detailed Events

- 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

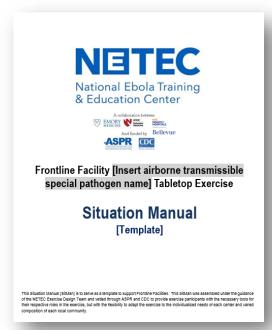
- Triage nurse asks appropriate travel history questions and escorts patient to the prepared negative airflow room.
- Nurse escalates clinically.
- Clinicians don appropriate PPE to perform patient assessment.
- Clinician contacts ICP/ID team as per protocol.
- Clinician makes internal and external notifications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





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		Ratings Key
Evaluator E-mail		P - Discussed without Challenges
Phone		S - Discussed with Some Challenges
riouc		M - Discussed with Major Challenges
		U – Unable to be Performed
		NA - Unable to Observe

Objective 1:		unication with, and coordination of activating the [insert BCU Team] (including f a second patient confirmed with Ebola Virus Disease (EVD)	g support		
Associated Critical Tasks		Observation Notes and Explanation of Rating			
Time it takes for notification to rostered staff of identification of second patient					
	or the on-call team to report to tification of a second incoming				
Internal department External	re provided to appropriate ding second patient. stakeholders(including support ents) stakeholders (including state thealth departments)				
transportation a effectively rece Ebola virus di	RESPTC name] to coordinate arrangements, and safely and cive a patient with confirmed sease (EVD) for evaluation, dmission within an appropriate				
processes between public health,	otification and communication een local, state, and federal EMS, healthcare delivery s, assessment centers, ETCs,				



Paul Biddinger, MD, FACEP

Director, Center for Disaster Medicine Massachusetts General Hospital Associate Professor of Emergency Medicine, Harvard Medical School



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

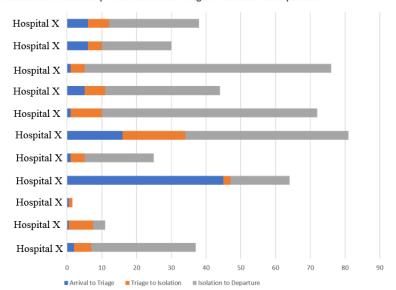
- Drill Time Stamps
- Disease-specific Checklist
- Staff Proficiency on "x" Disease
- Patient Experience

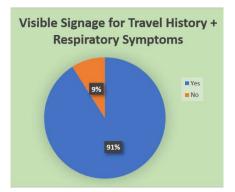
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	Туре		Yes	No	Other		Commen	ts	
foo	No visible cell phone usaoู od/drink in reception area	je or							-1
	Clerk/Greeter makes eye tient and greets patient w			Sta	ff Profic	iency on	[insert dise	ase name]	
4. wit	Clerk/Greeter's ID badge Clerk/Greeter introduces h appropriate greeting (i. ming") Clerk/Greeter provides pa		Туре		res sca 1 b and pro	le from 1-5.	vledge on a , with ast proficient	Comments	
ра 6.	clerk Greeter provides pa cket of paperwork for con At every transition, patier nfirmed (via DOB and nar	Question 1: I disease nam contract this	e] and h disease	ow did					_
ļ ļ		Ū				Check			
ď	Type 1. Signage/Poster at poi	at of onto for	Yes		lo O	ther		Comments	
9	[insert disease name]	nit of entry for			ו				ш
	Clerk/Greeter/Triage a Travel history How long fever/sym Overnight hospital st abroad Been in close contact someone who is/was	otoms persists tays while							
	When positive travel hepidemiological linkage patient offered [insert distesting]	s confirmed,							╢
	Educational material (handout/FAQ) is given to								



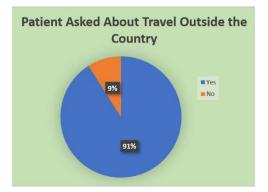
Example: Mystery Patient Drills for COVID-19















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 airbornetransmissible 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)

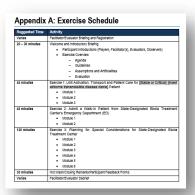
*This is not an exhaustive list. Other airborne diseases may be substituted.





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
- 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



Target Capability	tesusitives for improvement	Corrective Action	Capability Element [®]	Primary Responsible Organization	Ceganization POC	Start Date	Completion
Target Capability 1 (Capability Name)	1 (Area for Improvement)	[Corective Action 1]					
		Corective Action 2)	+			_	_
		Corective Action 5	_			_	
	2 (Area for Improvement)	Corective Autor 1)	-			_	
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Target Capability 2 (Capability Name)	1 (Ansa for improvement)	Conscilie Action ()					
		Corective Action 2;	_				
		Corective Action 3)					
	2 (Knue for Improvement)	(Corective Action 1)	-				
		Corective Action 2	_				



NETEC Exercise Resources



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



Moderator Roundtable John Hick, MD



Question & Answer





For Additional Support

- Contact National Ebola Training and Education
 Center (netec.org)
 NETEC
- Contact your NHPP Field Project Officers
- Contact ASPR TRACIE







