



Regional Ebola and Other Special Pathogens Treatment Center [Insert airborne transmissible special pathogen name] Tabletop Exercise

**Situation Manual**

**[Template]**

This Situation Manual (SitMan) is to serve as a template to support Regional Ebola and Other Special Pathogens Treatment Centers. 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.

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# Exercise Overview

|  |  |
| --- | --- |
| **Exercise Name** | [Insert the formal name of exercise, which should match the name in the document header] |
| **Exercise Date** | [Month/Day, Year] |
| **Scope** | This exercise is a [exercise type], planned for [exercise duration] at [exercise location]. Exercise play is limited to [exercise parameters]. |
| **Mission Area(s)** | [Prevention, Protection, Mitigation, Response, and/or Recovery] |
| **Target Capabilities** | Foundation for Health Care and Medical Readiness, Health Care and Medical Response Coordination, Continuity of Health Care Service Delivery, and Medical Surge. [List any other applicable target capabilities being exercised] |
| **Objectives** | 1. Evaluate the Regional Ebola and Other Special Pathogen Treatment Center to coordinate transportation arrangements, and receive a patient with [suspected or confirmed] [insert airborne transmissible disease name] for evaluation, treatment and admission within an appropriate time frame. 2. Exercise the notification and communication processes internally with rostered staff and externally between local, state, and federal public health, EMS, and other healthcare delivery system partners, Assessment Hospitals, ETCs, and the Regional Ebola and Other Special Pathogen Treatment Center, as well as media management. 3. Evaluate EMS capabilities, and determine the most appropriate method for transportation (e.g., air versus ground.)  * Management of [stable or critical] patient or PUI transported by ground EMS personnel * Evaluate the management of patient undergoing air transportation and coordination with ground EMS personnel for [stable or critical] patient or PUI  1. Evaluate just-in-time PPE don / doff training resources and PPE availability for EMS, and other healthcare delivery system personnel, including the ETC. 2. Assess policies and procedures governing care of patient at the Regional Ebola and Other Special Pathogen Treatment Center 3. Assess planning for special considerations (e.g., surge capacity, laboratory services, diagnostic radiological imaging, pediatric patient, waste management, decedent management, labor/delivery, surgical intervention) 4. [List any additional exercise objectives] |
| **Hazard** | Special Pathogen |
| **Scenario** | [Insert a brief overview of the exercise scenario, including scenario impacts (2-3 sentences)] |
| **Sponsor(s)** | [Insert the name of the sponsor organization, as well as any grant programs being utilized, if applicable] |
| **Participating Organizations** | [Agency/Department]  [Agency/Department] |
| **Point of Contact** | [Agency/Department]  Name  Title  Email  Phone  [Agency/Department]  Name  Title  Email  Phone |

# About NETEC

NETEC is a consortium of Emory University, NYC Health + Hospitals, and the University of Nebraska Medical Center, as equal partners, who support ASPR and the CDC by developing the National Ebola Training and Education Center. All three institutions have safely and successfully cared for patients with Ebola virus disease (EVD) since the beginning of the outbreak in March 2014. The goal of the NETEC, over its five-year funding period, is to increase the competency of health care and public health workers and the capability of health care facilities to deliver safe, efficient, and effective Ebola patient care through the nationwide, regional network for Ebola and other infectious diseases. The objectives are: 1) to develop metrics to measure facility and health care worker readiness (including health care worker training) to care for patients infected with the Ebola virus and other special pathogens (e.g. variola or smallpox, Marburg virus, *Yersinia pestis*, anthrax, or measles); 2) to conduct assessments, monitoring, recognition reporting, and validation of Regional and State Ebola Treatment Centers and Assessment Hospitals; 3) to create and maintain a comprehensive suite of timely and relevant educational materials related to care of patients with Ebola and other special pathogens; 4) to identify and incorporate best practices regarding how health departments and treatment centers collaborate around the care of patients with Ebola virus infection; 5) to establish a web-based repository to support dissemination of timely and relevant materials; 6) to support the public health departments and health care facilities through training and technical assistance.

**Exercise Resource Technical Assistance:**

NETEC offers 24/7 Exercise Technical Assistance with subject matter experts who are versed in HSEEP exercise design and development. Exercise Technical Assistance can include onsite exercise assistance (e.g., observer, evaluator), and remote technical assistance (e.g., exercise development).

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# Using This Document

1. As the exercise planner, you are responsible for scheduling the exercise and inviting the appropriate individuals to the exercise. It is best to plan for approximately 30 minutes to 2 hours per module, plus 1+ hours for instructions and hotwash (Appendix A).
2. This template should be customized to meet each end users unique requirements. Insert appropriate selection into highlighted gray areas.
3. You will need to assign someone to facilitate and evaluate the exercise at your site and write the After Action Report and Improvement Plan (Appendix D).
4. To ensure the best possible learning opportunity for your team, it is strongly recommended that you already have a plan in place for the processes that are discussed in this document. The scenarios and injects that comprise this exercise are designed to stimulate thought and discussion about your current plans and how to improve them.
5. On the day of the exercise, your team should gather in a conference or training room to participate in the exercise using a single computer, combination computer/LCD projector and/or handouts.
6. Invite your entire Incident Management Team to this Tabletop exercise. If you do not have an Incident Management Team, some suggestions of people to invite would be:

* Senior Administrative Leadership (e.g., CEO, COO, CMO, CNO or CFO)
* Emergency Preparedness Coordinator
* Physicians
* Nurses
* Nursing Assistants
* Facilities Management staff
* Environmental Services staff
* Infection Prevention Leadership
* Respiratory Protection Program/Industrial Hygiene Leadership
* Any other staff members that participate in patient care

1. Consider inviting members of your local Public Health, Fire and Rescue, Law Enforcement, and/or Emergency Medical Services (EMS) teams.
2. Have all participants fill out a Sign-in Sheet.
3. It is helpful for each participant to have a handout that includes the scenario and questions for the exercise so they can follow along and reference the scenario as questions arise during the discussion. This document should be developed based on the portion of the exercise that is planned.
4. Have all participants fill out a Participant Feedback form and hand back to you. (Appendix E)
5. To ensure this Tabletop Exercise meets the requirements of Joint Commission, you will need to have additional community members (local Public Health, etc.) in the room for your discussion. (FOR JOINT COMMISSION ACCREDITED FACILITIES ONLY)
6. An After Action Report (AAR) template (Appendix D) is included in this packet. This is a template for you to fill out after the exercise is completed. It will allow you to easily organize your strengths, weaknesses and improvement planning efforts.

# Preface

There has been much focus and effort toward preparedness for Ebola. Ebola is **transmitted** through direct contact with infected blood or body fluids. Health care facilities in the United States must also be prepared for diseases that are transmitted through the air such as Middle East Respiratory Syndrome Coronavirus (MERS-CoV), or otherhighly communicable airborne and non-airborne diseases. By building upon the established regional, tiered approach set forth by Health and Human Services (HHS) for Ebola Virus Disease (EVD), health care facilities can support a system of care for special pathogens including highly communicable airborne and non-airborne diseases, all of which pose a significant burden on the healthcare delivery system and require real time access to expertise in infectious disease management; and involve strategies and tactics related to overall preparedness to special pathogens*.*

**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.

Health care facilities should outline plans from an ‘all hazards’ view for administrative, environmental, and communication measures that will be required to prevent spread, and manage the impact on patients, the facility, and staff for incidences involving special pathogen diseases.

By exercising plausible scenarios of varying type and magnitude, including highly communicable airborne and non-airborne diseases, health care facilities can maintain an appropriate level of readiness to respond effectively to special pathogen diseases. The proposed airborne diseases in Table 1 are not an exhaustive list of highly communicable airborne diseases. Rather, the list is an impetus to serve as a starting point for health care facilities to begin planning for other highly communicable diseases.

|  |
| --- |
| NOTE: The purpose of this template is to give end-users an option when designing, conducting, and evaluating special pathogen exercises and to choose a single airborne-transmissible pathogen and expeditiously proceed. |

This exercise template has been developed by the National Ebola Training and Education Center (NETEC) utilizing the Homeland Security Exercise and Evaluation Program (HSEEP), which provided a “set of guiding principles for exercise programs, as well as a common approach to exercise program management, design and development, conduct, evaluation, and improvement planning.” (<http://www.fema.gov/media-library-data/20130726-1914-25045-8890/hseep_apr13_.pdf>).

***This is a facilitated discussion intended to probe and explore the Regional Ebola and Special Pathogen Treatment Center’s ability to identify and stabilize a patient who may have an airborne transmitted highly infectious disease; to initiate care and implement special protocols that may be required for the protection of the healthcare facility and its staff; and to coordinate such care with other HCC partners, including EMS, Public Health and Emergency Management. Special considerations are given to surge management; laboratory services; waste management; care of a pediatric patient; and decedent management.***

***The series of questions included in this document are intended to initiate discussion and description of how the Regional Ebola and Special Pathogen Treatment Center would respond to such an event. It is not anticipated that every question will be answered in every session, or that every question is relevant to every Regional Ebola and Special Pathogen Treatment Center setting. Please utilize these questions to explore the many complexities involved in the management of patients with an airborne transmitted highly infectious disease, whether it be done in one session, or divided up over a number of sessions in which specific topics (coordination of EMS transport, implementation of patient care protocols, development of joint messaging, etc.) are discussed in greater detail.***

***Please note that there are four (4) specific measures (framed as specific questions in the body of this document) that are REQUIRED to be asked and answered by coalitions that received funding through the HPP Ebola Preparedness and Response Activities funding opportunity announcement. Nine (9) OTHER HPP measures are also included to further probe Regional Ebola and Other Special Pathogen Treatment Center's ability to evaluate and stabilize a patient who may have an airborne transmitted highly infectious disease.***

# General Information

## Background

## The Hospital Preparedness Program (HPP) *Ebola Preparedness and Response Activities* funding opportunity announcement (FOA) provided awardees with funds to support a regional, tiered approach to the management of Ebola and disease caused by other special pathogens. At the state or jurisdiction level, awardees include health care facilities that are capable of serving as State-Designated Ebola (and other Special Pathogen) Treatment Centers (ETCs), Assessment Hospitals and Regional Ebola and Other Special Pathogen Treatment Centers. Additionally awardees may support health care coalitions to prepare Frontline Facilities, emergency medical services (EMS), and the overall health care system in special pathogen preparedness activities. Special pathogen health care system preparedness, response, and the development of a regional Ebola and Special Pathogen treatment strategy were supported by ASPR through HPP. HPP has created *specific metrics* to assess progress in meeting the goals of the *HPP Ebola Preparedness and Response Activities (FOA)*. For the purpose of these exercises, hese metrics have been modified by NETEC and approved by ASPR to also serve Special Pathogen Preparedness and Response.

## Hospitals designated as Regional Ebola and Other Special Pathogen Treatment Centers [RESPTC], with the support of their state or jurisdiction HPP awardee, will serve as the hub of the treatment network, which also includes ETCs, Assessment Hospitals, and Frontline health care facilities. This network will be supported through at least 2019 by regular exercises and plans that describe how Ebola and Special Pathogen patients under investigation are identified, assessed, diagnosed, and if necessary, safely transferred to the appropriate facility for definitive treatment.

## Purpose

The purpose of the facilitated discussion exercise is to evaluate, review, and measure the regional response elements related to the Regional Ebola and Other Special Pathogen Treatment Centers, in which it must: 1) support regional planning for the development of a regional network for special pathogen patient care, and 2) develop, support and maintain Regional Ebola and Other Special Pathogen Treatment Centers. The results of this exercise may be used to support fulfillment of the RESPTC-related HPP measures.

## HPP Measures

Conduct of the facilitated discussion should allow sufficient flexibility for exercise participants to initiate the collection of required information in the context of the exercise. **It is anticipated that the results of these measures will be reported to the exercise leader in the allotted timeframe, but likely after the conclusion of the “discussion” portion of the exercise.**

**REQUIRED HPP Measures (Regional Ebola and Other Special Pathogens Treatment Center):**

|  |  |
| --- | --- |
| HPP Required Measures\* | |
| 23 B.B. | Proportion of rostered staff at the Regional Ebola and Other Special Pathogen Treatment Center that received quarterly training in infection control and safety, and patient care for a patient with Ebola/Special Pathogen (Goal: 100%). |
| 24 B.B. | Time it takes for the on-call team to report to the unit upon notification of an incoming patient with Ebola/Special Pathogen, as evidenced by a real-world event or no-notice exercise (Goal: 4 hours). |
| 25 B.B. | Proportion of rostered staff contacted by the Regional Ebola and Other Special Pathogen Treatment Center within 4 hours upon notification of an incoming patient with Ebola/Special Pathogen, as evidenced by a real-world event or no-notice exercise (Goal: 100%). |
| 26 B.B. | Time until a Regional Ebola and Other Special Pathogen Treatment Center is ready to admit a patient with confirmed Ebola/Special Pathogen (adult or pediatric patient), as evidenced by an exercise or actual patient transfer (Goal: Within 8 hours of notification). |

**OTHER HPP Measures (Select Assessment Hospital and Regional Ebola and Other Special Pathogen Treatment Centers measures that may be tested during this exercise that may support an RESPTC's preparedness and response):**

|  |  |
| --- | --- |
| Other HPP Measures+ | |
| 3 A.B. | Time it takes for all rostered staff, upon notification of a patient with Ebola (or other special pathogens) at the Regional Ebola and Other Special Pathogen Treatment Center, to receive just-in-time (JIT) training (Goal: Within 72 hours). |
| 6 A.B. | Proportion of rostered staff contacted that indicated they are able to report to fulfill Ebola (or other special pathogens) related staffing needs within 72 hours (Goal: 100%). |
| 7 A.B. | Proportion of [Ebola Treatment Centers] that can access their PPE supply (i.e., know location and have sufficient quantity of unexpired supply) within 10 minutes of patient with suspected Ebola (or other special pathogens) transfer notification or upon the patient’s arrival (if no notification) (Goal: 100%). |
| 9 A.B. | Time, in minutes, it takes an [assessment hospital] to identify and isolate a patient with Ebola or other highly infectious disease (e.g., MERS-CoV, measles, etc.) following emergency department triage, as evidenced by a real-world case or no-notice exercise (Goal: Within 5 minutes). |
| 12 A.B. | Proportion of emergency department staff trained at least annually in infection control and safety (Goal: 100%). |
| 19 B.A. | Time from confirmation of Ebola/ Other Special Pathogens patient at [assessment hospital or ETC] to notification by the health department and/or transferring hospital (assessment hospital or ETC) to the health department in the state/jurisdiction where the regional Ebola and other special pathogen treatment center is located about the need for patient transfer (Goal: Within 30 minutes). |
| 20 B.A. | Proportion of member states/jurisdictions in the region that have participated in the development of the regional CONOPS (Goal: 100%). |
| 21 B.A. | Proportion of states/jurisdictions in the HHS region for which a current written and signed agreement is in place to transfer patients from assessment hospitals or ETCs to the regional Ebola and other special pathogen treatment center (Goal: 100%). |
| 22 B.A. | Proportion of states/jurisdictions in the HHS region that have demonstrated the ability to move a patient across jurisdictions by ground or air to a regional Ebola and other special pathogen treatment center, as evidenced by a real-world event or participation in a multi-jurisdiction exercise (Goal: 100%). |

Hospital Preparedness Program (HPP) Measure Manual: Implementation Guidance for Ebola Preparedness Measures. July 2015 Version 7.0

\**[This document has been modified and approved by ASPR to include metrics for special pathogens]*

*+[These measures have been pulled from select Assessment Hospital, Regional Network and other related HPP measures that can be used as a guide for Regional Ebola and Other Special Pathogens Treatment Centers to increase preparedness and planning]*

<http://netec.org/wp-content/uploads/2015/10/2015-HPP-Measure-Manual-Implementation-Guidance-for-Ebola-Preparedness-NETEC-Exercise-Template-Add-On.pdf>

## Scope

## Regional Ebola and Other Special Pathogen Treatment Centers: The exercise will focus on the Regional Ebola and Other Special Pathogen Treatment Center’s responsibilities and response to a patient with suspected and confirmed [insert airborne transmissible disease name], within the Healthcare Coalition (HCC). Furthermore, it will explore the coordination and interplay between the multiple agencies and emergency response disciplines that comprise the Healthcare Coalition.

## Target Capabilities

The Hospital Preparedness Program (HPP) *Ebola Preparedness and Response Activities* (CFDA #93.817) Funding Opportunity Announcement (FOA) and the NETEC are utilizing a capabilities-based planning approach as directed by National Preparedness Priorities. Capabilities-based planning focuses on planning under uncertainty, since the next emergence of a highly infectious disease in the United States can never be forecast with complete accuracy. Therefore, capabilities-based planning takes an approach to planning and preparation which builds capabilities that can be applied to a wide variety of special pathogens.

The NETEC Exercise Design Team, ASPR and CDC have determined the capabilities listed below from the priority capabilities identified in the 2017 – 2022 Health Care Preparedness and Response Capabilities and exercise requirements. These capabilities provide the foundation for development of exercise objectives and scenario, as the purpose of this exercise is to measure and validate performance of these capabilities and their associated critical tasks: Foundation for Health Care and Medical Readiness, Health Care and Medical Response Coordination, Continuity of Health Care Service Delivery, and Medical Surge. .

## Exercise Objectives and Target Capabilities

The following objectives discuss Regional Ebola and Other Special Pathogen Treatment Center's concept of operations, emergency management procedures, air and ground transportation procedures, identify areas for improvement, and achieve communication, coordination and collaboration with internal and external stakeholders.

Table 1: Exercise Objectives and Associated Target Capabilities

| Objective | Related Target Capabilities |
| --- | --- |
| 1. Evaluate the Regional Ebola and Other Special Pathogen Treatment Center to coordinate transportation arrangements, and receive a patient with [suspected or confirmed] [insert airborne transmissible disease name] for evaluation, treatment and admission within an appropriate time frame. | Foundation for Health Care and Medical Readiness  Health Care and Medical Response Coordination  Continuity of Health Care Service Delivery |
| 1. Exercise the notification and communication processes internally with rostered staff and externally between local, state, and federal public health, EMS, and other healthcare delivery system partners, Assessment Hospitals, ETCs, and the Regional Ebola and Other Special Pathogen Treatment Center, as well as media management. | Foundation for Health Care and Medical Readiness  Health Care and Medical Response Coordination  Continuity of Health Care Service Delivery |
| 1. Evaluate EMS capabilities, and determine the most appropriate method for transportation (e.g., air versus ground.)  * Management of [stable or critical] patient or PUI transported by ground EMS personnel * Management of patient undergoing air transportation and coordination with ground EMS personnel for [stable or critical] patient or PUI | Foundation for Health Care and Medical Readiness  Health Care and Medical Response Coordination  Continuity of Health Care Service Delivery |
| 1. Evaluate just-in-time PPE don / doff training resources and PPE availability for EMS, and other healthcare delivery system personnel, including the RESPTC. | Health Care and Medical Response Coordination  Continuity of Health Care Service Delivery |
| 1. Assess policies and procedures governing care of patient at the Regional Ebola and Other Special Pathogen Treatment Center | Health Care and Medical Response Coordination  Foundation for Health Care and Medical Readiness  Continuity of Health Care Service Delivery |
| 1. Assess planning for special considerations (e.g., surge capacity, laboratory services, diagnostic radiological imaging, pediatric patient, waste management, decedent management, labor/delivery, surgical intervention) | Foundation for Health Care and Medical Readiness  Health Care and Medical Response Coordination  Continuity of Health Care Service Delivery  Medical Surge |
| 1. **[Other]** | **[Other]** |

Table 2: Target Capabilities Defined[[1]](#footnote-1)

| **Target Capability** | **Definition** |
| --- | --- |
| **Foundation for Health Care and Medical Readiness** | The community has a sustainable health care coalition (HCC) comprised of members with strong relationships that can identify hazards and risks and prioritize and address gaps through planning, training, exercising, and managing resources. |
| **Health Care**  **and Medical**  **Response Coordination** | Health care organizations, the HCC, their jurisdiction(s), and the ESF-8 lead agency plan and collaborate to share and analyze information, manage and share resources, and coordinate strategies to deliver medical care to all populations during emergencies and planned events. |
| **Continuity of**  **Health Care**  **Service Delivery** | Health care organizations, with support from the HCC and the ESF-8 lead agency, provide uninterrupted, optimal medical care to all populations in the face of damaged or disabled health care infrastructure. Health care workers are well-trained, well-educated, and well-equipped to care for patients during emergencies. Simultaneous response and recovery operations result in a return to normal or, ideally, improved operations. |
| **Medical Surge** | Health care organizations including hospitals, EMS, and out of hospital providers deliver timely and efficient care to their patients even when the demand for health care services exceeds available supply. The HCC, in collaboration with the ESF-8 lead agency, coordinates information and available resources for its members to maintain conventional surge response. When an emergency overwhelms the HCC’s collective resources, the HCC supports the health care delivery system’s transition to contingency and crisis surge response and promotes a timely return to conventional standards of care as soon as possible. |

## Participant Roles and Responsibilities

* **Players.** Players are personnel who have an active role in discussing or performing their regular roles and responsibilities during the exercise. Players discuss or initiate actions in response to the simulated emergency.
* **Observers.** Observers do not directly participate in the exercise. However, they may support the development of player responses to the situation during the discussion by asking relevant questions or providing subject matter expertise.
* **Facilitators.** Facilitators provide situation updates and moderate discussions. They also provide additional information or resolve questions as required. Key Exercise Planning Team members also may assist with facilitation as subject matter experts (SMEs) during the exercise.
* **Evaluators.** Evaluators are assigned to observe and document certain objectives during the exercise. Their primary role is to document player discussions, including how and if those discussions conform to plans, polices, and procedures.

## Exercise Structure

This will be a facilitated tabletop exercise. There are three tabletop exercises contained within this document. RESPTC's should select an airborne special pathogen to insert into the highlighted gray areas. The scenario has been developed to cover all three airborne disease selections listed in Table 1. Exercises and modules should be edited and adapted to meet the needs and objectives of the RESPTC; the provided modules are only a starting point. The series of facilitated discussion questions that follow may be asked in a joint session, with all stakeholders present, or broken up by discipline over multiple days with a focus on stakeholder areas. The following key items will be covered in the corresponding exercises and modules:

1. **Exercise 1: Unit Activation, Transport Coordination and Patient Care for [Stable or Critical] [insert airborne transmissible disease name] Patient** 
   1. **Module 1**: Unit Activation following Notification of Pending Transfer of [insert airborne transmissible disease name] Patient
   2. **Module 1b**: Air Transport of Critical Patient from Overseas
   3. **Module 2:** Patient Transport to Regional Ebola and Other Special Pathogen Treatment Center for [Stable or Critical] Patient with [insert airborne transmissible disease name] and Patient Hand-Off
   4. **Module 3:** Care of [Stable or Critical] Patient at the Regional Ebola and Other Special Pathogen Treatment Center with [insert airborne transmissible disease name]
      1. Special issues related to suctioning
      2. Special issues related to intubation
      3. Special issues related to renal replacement therapy
2. **Exercise 2: Admit a Walk-In Patient from Regional Ebola and Other Special Pathogens Treatment Center's Emergency Department (ED)**
   1. **Module 1:** Identification and Isolation of Patient with Possible [insert airborne transmissible disease name] in the ED.
   2. **Module 2:** Regional Ebola and Other Special Pathogen Treatment Center's Activation following ED Arrival of Patient with Possible [insert airborne transmissible disease name].
3. **Exercise 5: Planning for Special Considerations at Regional Ebola and Other Special Pathogen Treatment Center** 
   1. **Module 1:** Surge Capacity
   2. **Module 2:** Laboratory Support Services
   3. **Module 3:** Diagnostic Radiological Studies
   4. **Module 4:** Pediatric Patient
   5. **Module 5:** Waste Management
   6. **Module 6:** Surgical Intervention
   7. **Module 7:** Decedent Management
   8. **Module 8:** Labor/Delivery

Each module will include an update that summarizes the key events occurring within that time frame. Following the updates, participants review the situation and engage in small or large group discussions of appropriate response issues. The modules provided are a framework for development of a Regional Ebola and Other Special Pathogen Treatment Center Tabletop Exercise. A module should be selected and adapted based upon the needs and objectives of the unique RESPTC.

## Exercise Guidelines

* This is an open, low-stress, no-fault environment. Varying viewpoints, even disagreements, are expected.
* Respond based on your knowledge of current plans and capabilities (i.e., you may use only existing assets) and insights derived from training.
* Decisions are not precedent setting and may not reflect your organization’s final position on a given issue. This is an opportunity to discuss and present multiple options and possible solutions.
* Issue identification is not as valuable as suggestions and recommended actions that could improve response and preparedness efforts. Problem-solving efforts should be the focus.
* This exercise is intended to raise more questions than answers. It is a tool to be used to help assess and improve your current planning.
* Given all of the variables involved in this type of scenario, many questions and potential issues have been omitted in the interests of available time and exercise objectives.

## Exercise Assumptions and Artificialities

In any exercise, a number of assumptions and artificialities may be necessary to complete play in the time allotted. During this exercise, the following apply:

* The scenario is plausible, and events occur as they are presented.
* There is no “hidden agenda”, nor any trick questions.
* All players receive information at the same time.
* Information is provided for situational awareness. Participants should realize that in a real event, this information might not be available to them with such immediacy for decision-making. This is an artificiality to allow for a comprehensive discussion.

# Exercise 1: Activation, Transport Coordination and Patient Care for [Stable or Critical] [insert airborne transmissible disease name] Patient

## Scenario

A hospital in your State has identified a patient in their emergency department who meets travel, exposure and symptomatic criteria for [insert airborne transmissible disease name], and the laboratory testing recently screened positive for [insert airborne transmissible disease name]. The hospital is requesting patient transfer to the Regional Ebola and Other Special Pathogen Treatment Center.

**HPP Required Measures:**

* 23 B.B. Proportion of rostered staff at the Regional Ebola and Other Special Pathogen Treatment Center that received quarterly training in infection control and safety, and patient care for a patient with Ebola/Special Pathogen (Goal: 100%).
* 24 B.B. Time it takes for the on-call team to report to the unit upon notification of an incoming patient with Ebola/Special Pathogen, as evidenced by a real-world event or no-notice exercise (Goal: 4 hours).
* 25 B.B. Proportion of rostered staff contacted by the Regional Ebola and Other Special Pathogen Treatment Center within 4 hours upon notification of an incoming patient with Ebola/Special Pathogen, as evidenced by a real-world event or no-notice exercise (Goal: 100%).
* 26 B.B. Time until a Regional Ebola and Other Special Pathogen Treatment Center is ready to admit a patient with confirmed Ebola/Special Pathogen (adult or pediatric patient), as evidenced by an exercise or actual patient transfer (Goal: Within 8 hours of notification).

**Other HPP Measures:**

* 3 A.B. Time it takes for all rostered staff, upon notification of a patient with Ebola (or other special pathogens) at the Regional Ebola and Other Special Pathogen Treatment Center, to receive just-in-time (JIT) training (Goal: Within 72 hours).
* 6 A.B. Proportion of rostered staff contacted that indicated they are able to report to fulfill Ebola (or other special pathogens) related staffing needs within 72 hours (Goal: 100%).
* 7 A.B. Proportion of [Ebola Treatment Centers] that can access their PPE supply (i.e., know location and have sufficient quantity of unexpired supply) within 10 minutes of patient with suspected Ebola (or other special pathogens) transfer notification or upon the patient’s arrival (if no notification) (Goal: 100%).
* 19 B.A. Time from confirmation of Ebola/ Other Special Pathogens patient at [assessment hospital or ETC] to notification by the health department and/or transferring hospital (assessment hospital or ETC) to the health department in the state/jurisdiction where the regional Ebola and other special pathogen treatment center is located about the need for patient transfer (Goal: Within 30 minutes).

## Module 1: Unit Activation following Notification of Pending Transfer of [insert airborne transmissible disease name] Patient

## Key Issues

* Unit Activation
* Notification
* Preparation

## Questions

The following questions are provided as suggested subjects that we may address as the discussion progresses. These questions are not meant to constitute a definitive list of concerns to be addressed, nor is there a requirement to address every question.

1. Describe the decision making process to accept the patient transfer & determine how the Health Departments of appropriate states or jurisdictions are involved in your decision making process. Do you estimate that this decision can be accomplished in under 30 minutes? *(Goal: Within 30 minutes; HPP Measure 19 B.A.)* Identify any jurisdictional issues.

Considerations:

* Current written and signed agreements in place (ground and air transport, as applicable) *(Goal: 100%, HPP Measure 21 B.A.)*
* Origin of patient transfer
* Memorandum that govern the cost of patient care if your facility accepts the transfer.
* What jurisdictional issues might arise?

1. Has the Regional Ebola and Other Special Pathogen Treatment Center participated in the development of its regional CONOPs? *(Goal: 100%; HPP Measure 20 B.A*.)

Considerations:

* Has your HHS region demonstrated the ability to move a patient across jurisdictions by ground or air to the Regional Ebola and Other Special Pathogen Treatment Center, as evidenced by a real-world event or participation in a multi-jurisdiction exercise *(Goal: 100%; HPP Measure 22 B.A.)*

1. Describe in detail the Regional Ebola and Other Special Pathogen Treatment Center's patient care team activation process:

Considerations:

* How many rostered staff comprise the RESPTC care team?
* Proportion of rostered staff at the Regional Ebola and Other Special Pathogen Treatment Center that received quarterly training in infection control and safety, and patient care for a patient with Ebola/Special Pathogen *(Goal: 100%; HPP Measure 23 B.B.).*
* Time it takes for the on-call team to report to the unit upon notification of an incoming patient with Ebola/Special Pathogen, as evidenced by a real-world event or no-notice exercise *(Goal 100%; HPP Measure 24 B.B.)*
* Time it takes for all rostered staff, upon notification of a patient with [insert airborne transmissible disease name] at the RSPETC to receive just-in-time (JIT) training *(Goal: Within 72 hours; HPP Measure 3 A.B.).*
* Proportion of rostered staff contacted by the Regional Ebola and Other Special Pathogen Treatment Center within 4 hours upon notification of an incoming patient with [insert airborne transmissible disease name], as evidenced by a real-world event or no-notice *(Goal: 100%; HPP Measure 25 B.B.).*
* Proportion of rostered staff contacted that indicated they are able to report to fulfill [insert airborne transmissible disease name]-related staffing needs within 72 hours *(Goal: 100%; HPP Measure 6 A.B.).*

1. Will the Regional Ebola and Other Special Pathogen Treatment Center be ready to admit a patient with [insert airborne transmissible disease name] within 8 hours? *(Goal: Within 8 hours of confirmation; HPP Measure 26 B.B.).*
2. Do all members of your team who will be wearing a respirator participate in your respiratory protection program?
   * + Have all members of your team been fit tested for the respirator they will be wearing?
     + Was their last fit test within the appropriate time frame to be in compliance with your

respiratory protection program?

1. Describe in detail the Regional Ebola and Other Special Pathogen Treatment Center's administrative and operational activation process:

Considerations:

* Preparing Airborne Infection Isolation Room (AIIR)
* Stocking unit with appropriate equipment and supplies
* Ability to access PPE supply (i.e., know location and have sufficient quantity of unexpired supply) within 10 minutes of patient transfer notification *(Goal: 100%; HPP Measure 7 A.B.).*
* Notifying other internal (e.g., hospital departments) and external (e.g., stakeholders) contacts

1. Identify your potential ground transport partners and resources you are beginning to secure from them.

Considerations

* + Ambulance selection (e.g. separate driver and patient compartments that can provide

separate ventilation to each area, if available)

* + Ambulance preparation (e.g., ventilation system set to non-

recirculating mode, HEPA filtration use, if available.)

* + Medical equipment needed/not needed
  + Medical crew
  + Length of time/distance to travel
  + Route (e.g., crossing multiple state and local jurisdictions)
  + Clinical specimen collection during transport, if available and deemed

necessary

* + Engineering controls to limit respiratory dissemination of the virus
  + Patient transport redundancies
  + Spill kits
  + Security/Law enforcement escort
  + Weather preparations
  + Media management
  + Post transport ambulance decontamination

1. Describe patient care considerations/personal protective equipment plans during transport:

Considerations:

* Patient isolation methods
* Patient PPE (i.e., non-intubated patients to don on surgical mask until in an AIIR or have patient cover the mouth/nose with tissue when coughing)
* Pain treatment
* Aerosol-generating procedures if deemed medically necessary (e.g., aerosol medication administration, airway suctioning, intubation)
* Type of clinical provider to accompany
* Body fluid, secretions (including respiratory secretions) containment
* Source control (i.e., confining the spread of respiratory secretions at the

patient level)

* Monitoring devices
* Combative patient
* Doffing location for EMS
* Patient expiration
* Patient care handoff
* Crisis standards of care
* Intervention or non-intervention in case of sudden clinical deterioration (e.g., respiratory or cardiac arrest)?

1. What role will your Regional Ebola and Other Special Pathogen Treatment Center's (or local or regional partners) play in:
   * Patient care during transport
   * Transport
   * Security
   * Ambulance decontamination
   * Public health response
2. Identify three actions you are asking your response partners to do to help you in the patient transport process.

Consideration:

* emergency management, law enforcement, Fire/EMS and public health

1. Do you have a plan for communicating to your internal staff and currently hospitalized patients and families to let them know what is happening? What is your external media plan?
2. How do you expect to receive information during transport? What information will be disseminated to staff and public?

## Module 1B: Air Transport of a Critical Patient from Overseas

## Scenario

The patient has been diagnosed with laboratory-confirmed [insert airborne transmissible disease name]. The patient had been providing health care in [insert relevant country] as a nurse. The decision has been made to transfer the patient to a Regional Ebola and Other Special Pathogen Treatment Center by air due to increasing patient acuity. The febrile patient with a past medical history of diabetes is having severe acute respiratory symptoms including persistent cough, difficulty breathing and myalgia in addition to diarrhea prior to and during transport from the airplane to the Regional Ebola and Other Special Pathogen Treatment Center. The flight will arrive at a local airport and require ground transport to the Regional Ebola and Other Special Pathogen Treatment Center.

## Key Issues

* Air transport
* Notification
* Preparation

## Questions

The following questions are provided as suggested subjects that we may address as the discussion progresses. These questions are not meant to constitute a definitive list of concerns to be addressed, nor is there a requirement to address every question.

1. Identify your potential air transport partners and resources you intend to secure from them.
2. Describe your potential air transport plan.

Considerations:

* + Access to airfield and tarmac.
  + Staging area for vehicles, media, and any safety officials.
  + Plan for patient report between physicians and patient care staff.
  + Source control precautions (i.e., confining the spread of respiratory secretions at the patient level during patient hand-off)
  + Notification to appropriate agencies (e.g., port authority)

1. Describe your ground transport plan (airplane to Regional Ebola and Other Special Pathogen Treatment Center).

Considerations

* Ambulance selection (e.g., separate driver and patient compartments that

can provide separate ventilation to each area, if available)

* Ambulance preparation (i.e., vehicle ventilation system set to non-

recirculating mode, HEPA filtration use, if available.)

* Medical equipment needed/not needed
* Medical crew
* Clinical specimen collection during transport, if deemed necessary (e.g.,

blood gas)

* Engineering controls to limit airborne dissemination of the virus
* Patient transport redundancies
* Air to ground handoff including location and PPE donning location
* Spill kits
* Security/Law enforcement escort
* Route
* Weather preparations
* Post transport vehicle decontamination

1. Establish your personal protective equipment plans for transport and patient care during transport based upon the transmission and exposure risks of the disease.

Considerations:

* Patient isolation methods
* Patient PPE (i.e., non-intubated patients to don on surgical mask until in an AIIR or have patient cover the mouth/nose with tissue when coughing)
* Pain treatment
* Aerosol-generating procedures if deemed medically necessary (e.g., aerosol medication administration, airway suctioning, intubation)
* Type of clinical provider to accompany
* Body fluid, secretions (including respiratory secretions) containment
* Source control (i.e., confining the spread of respiratory secretions at the

patient level)

* Monitoring devices
* Combative patient
* Doffing location for EMS
* Patient expiration
* Length of transport and patient care handoff
* Crisis standards of care
* Intervention or non-intervention in case of sudden clinical deterioration (e.g., respiratory or cardiac arrest)?

1. How do you expect to receive information during transport? What information will be disseminated to staff and public?
2. What role will your Regional Ebola and Other Special Pathogen Treatment Center (or local or regional partners) play in:
   1. Patient care
   2. Security
   3. Air transport decontamination
   4. Public health response
3. What are the top three response priorities for your Regional Ebola and Other Special Pathogen Treatment Center?

## Module 2: Patient Transport to Regional Ebola and Other Special Pathogen Treatment Center for [Stable or Critical] Patient with [insert airborne transmissible disease name] and Patient Hand-Off

## Scenario

***Scenario Information for Stable Patient:*** The symptomatic patient is a 52 year old male physician who is a medical relief worker in [insert relevant country]. The current symptoms include mild respiratory infection. The patient is en route via [ground or air] to your Regional Ebola and Other Special Pathogen Treatment Center.

***Scenario Information for Critical Patient:*** The symptomatic patient is a 52 year old male physician who is a medical relief worker in [insert relevant country]. The febrile patient is expected to have severe acute respiratory symptoms including persistent cough, difficulty breathing and myalgia in addition to diarrhea prior to and during transport. Past medical history is significant for type II diabetes. The patient is en route via [ground or air] transport and will arrive within the hour.

## Key Issues

* Coordination of Transportation
* Hand Off of Patient

## Questions

1. What are the top three response priorities for your Regional Ebola and Other Special Pathogen Treatment Centers?
2. Does your Regional Transport Plan contain an activation checklist of particular steps that must be done to prepare the environment for safe transfer of the patient?

Considerations:

* + - What is the process for moving the patient from the transport vehicle to the facility? (security, signage, etc.)?
    - What equipment needs to be gathered and pre-positioned?
    - What personal protective equipment needs to prepared and gathered?
    - What staff and ancillary support (e.g., infection prevention) need to be notified?
    - Have enough waste containers and safe storage space been prepared?

1. What is the route from the ambulance to the patient care area?
   1. What is the security plan for the RESPTC?
   2. How would a spill (vomiting, diarrhea, significant sputum production, etc.) be handled during the transport within the hospital?
   3. What are the plans for environmental disinfection within the hospital after the patient transfer and prior to releasing the area for public use?
2. What special considerations are necessary for the patient care area?
3. What special preparations are needed for the patient care room?
4. What will be done with other patients or staff in the location selected for patient placement?
5. Have you identified a secure location for waste handling until test results are available?
6. What are the personal protective equipment processes and workflow for patient care?
7. What are the doffing and donning locations, including the existence of previously exercised procedures?
8. How does the fact that this is an airborne transmissible disease affect doffing procedures?
9. What are the laboratory collection processes?
10. What are the safe procedures for the transport of the specimens for testing; including security and safe handling practices.
11. How will the transport vehicle be cleaned/disinfected after arrival at the Regional Ebola and Other Special Pathogen Treatment Center?

## Module 3: Care of [Stable or Critical] Patient at the Regional Ebola and Other Special Pathogen Treatment Center with [insert airborne transmissible disease name]

## Scenario

***Scenario Information for Stable Patient:*** A patient with laboratory confirmed [insert airborne transmissible disease name] has been treated at your Regional Ebola and Other Special Pathogen Treatment Center for several days remaining relatively stable (up to chair, eating a regular diet despite occasional appetite challenges) with good supportive care.

***Scenario Information for Critical Patient:*** The patient has a laboratory confirmed diagnosis of [insert airborne transmissible disease name] and is expected to require treatment at your Regional Ebola and Other Special Pathogen Treatment Center for several days with increasing symptoms and early signs of multi-organ failure. Supportive care is ongoing by your Regional Ebola and Other Special Pathogen Treatment Center.

## Key Issues

* Patient Care
* Ongoing Communication

## Questions

1. Discuss enhanced infection-control measures implemented for care of a “critical patient” with [insert airborne transmissible disease name].

Considerations:

* Administrative controls (e.g., cleaning and disinfection procedures, laboratory testing and reporting requirements)
  + - Environmental controls (e.g., air-handling systems with appropriate

directionality, filtration, exchange rate, etc.)

* Respiratory controls (e.g., use of respiratory protection equipment)
* Source control (e.g., standard, droplet, contact and airborne isolation precautions)

1. Discuss the equipment/supply requirements and costs for at least 21 days of care for a patient with [insert airborne transmissible disease name].

Considerations:

* + - Personal protective equipment (e.g., NIOSH-certified N-95 or higher-level

filtering facepiece respirator with appropriate fit testing)

* + - Equipment used for aerosol-generating procedures (e.g., bronchoscopy)
    - Diagnostic radiology studies
    - Respiratory support services
    - Laboratory support services (e.g., shipping clinical specimens)
* Waste management & spill clean up
  + - * Liquid
      * Solid
      * Sharps
    - Patient care supplies (e.g., antimicrobial therapy)
    - Contingency plans if PPE or other supplies exceeds supply
    - Family support
    - Public health support (e.g., promoting respiratory hygiene/cough etiquette)

1. Discuss the emergency procedures that should be in place in caring for a [insert airborne transmissible disease name] patient.

Considerations:

* Evacuation procedures (Fire, building damage, etc.)
* Storm warnings (if applicable)
* Response plan for infrastructure challenges (plumbing, air handling, etc.).

1. Discuss your communications plans.

Considerations:

* + Strategies for consultation services like physical therapy, psychiatry, and medical nutrition.
  + Family interaction with the patient.
  + Media management
  + Hospital communication to staff and existing patients

1. Do you have special processes related to suctioning?

Considerations:

* + Competency and training on equipment
  + Requirements for performing aerosol-generating procedures
  + Equipment decontamination or disposable equipment

1. Do you have special processes related to intubation?

Considerations:

* + - Competency and training on the equipment
  + Requirements for performing aerosol-generating procedures
    - Equipment decontamination or disposable equipment

1. Do you have special processes related to renal replacement therapy?

Considerations:

* + - Competency and training on the equipment
  + Special considerations for performing renal-replacement therapy
    - Equipment decontamination or disposable equipment

# Exercise 2: Admit a Walk-In Patient from Regional Ebola and Other Special Pathogen Treatment Center's Emergency Department (ED)

## Scenario

A patient with clinical symptoms consistent with possible [insert airborne transmissible disease name] and travel history to [insert relevant country] has arrived in the ED of Regional Ebola and Other Special Pathogen Treatment Center [insert your hospital name].

**HPP Other Measures:**

7 A.B. Proportion of [Ebola Treatment Centers] that can access their PPE supply (i.e., know location and have sufficient quantity of unexpired supply) within 10 minutes of patient with suspected Ebola (or other special pathogens) transfer notification or upon the patient’s arrival (if no notification) (Goal: 100%).

9 A.B. Time, in minutes, it takes an [assessment hospital] to identify and isolate a patient with [insert airborne transmissible disease name] following emergency department triage, as evidenced by a real world case or no-notice exercise (Goal: Within 5 minutes).

12 A.B. Proportion of emergency department staff trained at least annually in infection control and safety (Goal: 100%).

## Module 1: Identification and Isolation of Patient with Possible [insert airborne transmissible disease name] in the ED

## Key Issues

* Identification
* Isolation
* Notification

## Questions

The following questions are provided as suggested subjects that we may address as the discussion progresses. These questions are not meant to constitute a definitive list of concerns to be addressed, nor is there a requirement to address every question.

1. How does the ED screen patients for [insert airborne transmissible disease name]?

What is the time, in minutes, it takes an RESPTC to identify and isolate a patient with possible [insert airborne transmissible disease name] following emergency department triage, as evidenced by a real world case or no-notice exercise *(Goal: Within 5 minutes; HPP Measure 9 A.B.)*

1. Can you access your PPE supply (i.e., know location and have sufficient quantity of unexpired supply) within 10 minutes of a patient with suspected [insert airborne transmissible disease name] arrival? *(Goal 100%; HPP Measure 7 A.B.)*
2. If a high risk patient is identified, what is the process required to isolate the patient, and notify the patient care team and other appropriate hospital personnel (i.e., infection control)? Consider:
   * Notification and contact tracing with any staff, healthcare worker, visitor or patient who may have come in contact with the PUI.
3. What is the notification process to inform the local/state Public Health Department to discuss level of risk, clinical and epidemiologic factors, alternative diagnoses, and plan for laboratory testing?
4. What proportion of emergency department staff trained at least annually in infection control and safety? *(Goal: 100%; HPP Measure 12 A.B.)*

## Module 2: Regional Ebola and Other Special Pathogen Treatment Center's Activation following ED Arrival of Patient with Possible [insert airborne transmissible disease name].

## Scenario

After discussion with the Regional Ebola and Other Special Pathogen Treatment Center's local and state Public Health Departments all parties agree the patient meets the definition of a PUI and there is a need to perform further testing on this patient.

## Key Issues

* Unit Activation
* Notification

## Questions

1. What is the notification process to activate the RESPTC Patient Care Team and prepare the patient room?
2. How much time will it take to contact all rostered staff upon notification of a patient with possible [insert airborne transmissible disease name]?
   1. Time it takes for all rostered staff upon notification of a patient with [insert airborne transmissible disease name] to receive just-in-time training
   2. Time it takes rostered staff contacted that indicated they are able to report to fulfill Ebola (or other special pathogens) related staffing needs?
3. How much time will it take to admit the patient with possible [insert airborne transmissible disease name] to the RESPTC unit?
4. Do you have an activation checklist?
   1. What preparations are required to prepare the patient care area and relay pertinent information to members of the patient care and laboratory team?

# Exercise 3: Planning for Special Considerations at Regional Ebola and Other Special Pathogen Treatment Center

## Scenario

Multiple patients arrive at the Regional Ebola and Other Special Pathogen Treatment Center: A family of three, including 50-year old husband, 43-year-old wife who is currently 32 weeks pregnant with an LMP of [insert last menstrual date] and EDC of [insert estimated date of confinement] and six-year-old daughter with recent travel history to [insert relevant country], experiencing severe acute respiratory symptoms including persistent cough, difficulty breathing and myalgia in addition to diarrhea and fever have self-presented at your ED. Approximately five days after hospital admission, the 50-year-old husband expires from multi-organ failure. Approximately seven days after hospital admission, the 43-year-old pregnant wife goes into premature labor.

*[This Master Scenario applies to five modules below: surge capacity, laboratory support services, diagnostic radiological studies, pediatric patient, and waste management]*

## Module 1: Surge Capacity

## Key Issues

* Surge Capacity
* Available resources

## Questions

1. What processes do you have in place in the event of multiple patients or exposed family members? What are your facility plans for surge capacity?

Considerations:

* Facility surge capacity (e.g., number of available AIIR)
* Just-in-time training plan
* Surge staffing plan to care for multiple patients
* Plans or agreements in place for diverting patients to other Regional Ebola and Other Special Pathogen Treatment Centers or State-Designated Ebola Treatment Centers if patient and/or resource capacity is reached
* Skill mix of patient care team (e.g., pediatrician, critical care specialist)
* Dedicated staff that train together frequently to enhance team work and confidence to work with a [insert airborne transmissible disease name] patient

1. Does your RESPTC have enough resources (personnel, equipment, supplies) to care for up to 10 patients simultaneously with [insert airborne transmissible disease name]?
2. Are training materials or detailed policies and procedures available if conditions required your RESPTC personnel to provide consultation to other nursing units in the event that the disease could not be contained in a treatment unit?  Critical areas would include: Personal protective equipment, Waste handling, Environmental Disinfection, Respiratory Protection Use (when appropriate).

**INJECT:** It is currently flu season. News broke out of potential cases of [insert respiratory disease name] in their city. An influx of patients are now presenting to your ED worried they may have [insert respiratory disease name]. The challenge of differentiating symptoms of seasonal influenza and [insert respiratory disease name] has arisen. What are your first steps in managing this influx?

## Module 2: Laboratory Support Services

## Key Issues

* Laboratory Support Services
* Ongoing laboratory studies

## Questions

1. *For PUI:* Are there plans in place to ensure routine laboratory tests needed to determine alternative diagnoses and to support clinical care are performed while the PUI is evaluated for an airborne transmissible special pathogen?
2. *For confirmed case:* How are routine laboratory testing handled to support clinical patient care, including performing viral load monitoring for [insert airborne transmissible disease name] as the patient’s condition improves?
3. Who will collect the laboratory specimens?
   1. Where will the specimens be tested (point of care, hospital laboratory, state laboratory, CDC)?
   2. Is there a clear protocol for what volume of blood is required?
   3. Is there a clear protocol for sputum samples and viral testing with nasal aspirates?
   4. What color tubes are appropriate to draw the lab?
   5. How will the specimens be transported to the laboratory for testing?

Considerations:

* Safely collecting specimen
* Safely packaging specimen
* Safely shipping specimen

1. Will security assist with the transport if sending sample to external laboratory?

Considerations:

* Maintaining chain of custody

1. What preparations need to be done by the laboratory, including potential point of care options?
   1. What laboratory equipment needs to be used?
   2. What personal protective equipment need to be used?
   3. What staff and ancillary (e.g., infection prevention) support need to be notified?
   4. Have enough waste containers and safe storage space been prepared?
   5. Are laboratorians regularly trained in special pathogen specimen collection, packaging and transport?
2. Are there proper engineering controls, administrative and work practice controls, and use of appropriate personal protective equipment to perform laboratory testing on confirmed patient with [insert airborne transmissible disease name]?
3. Are there plans in place for laboratory decontamination (e.g., instruments) after testing patient specimens?

## Module 3: Diagnostic Radiological Studies

## Key Issues

* Diagnostic radiological imaging
* Available resources

## Questions

1. Do you have plans in place if the patient requires diagnostic radiology imaging studies (e.g., computed tomography)?

Considerations:

* Movement of potentially highly infectious patient through facility
* Signage/security to secure area
* Decontamination of all areas involved in intra-facility patient transport to imaging area
* Amount of time the imaging equipment is offline for decontamination and its impact on other hospital patient care

1. Do you have plans in place for point-of-care imaging? (e.g., bed-side ultrasound)

Considerations:

* Imaging procedure inside patient's room
* Appropriate safety, training and PPE to conduct imaging
* Decontamination of radiology equipment

## Module 4: Pediatric Patient

## Key Issues

* Pediatric patient
* Available resources

## Questions

Questions

1. Do you have special processes related to management of pediatric patient(s) with [insert airborne transmissible disease name]?

Considerations:

* Age-appropriate clinical care protocols and assessment tools
* Patient care medical equipment and supplies
* Modifications to patient care area (e.g. child safety features)
* Medication dosing
* Staffing model (e.g. would you employ Pediatric nurses in a primary role?)
* Behavioral sedation
* Role of Child Life Specialist
* School/Social reintegration

1. Involvement of family and/or significant others who wish to be in the room with pediatric patient?

Considerations:

* Available modes of communication that prevent exposure (e.g., tele-parenting, video calls)
* Counsel on risks/benefits of remaining with child in patient care room
* Just-in-time training on appropriate level of PPE
* Caregiver monitoring and follow up if physically in room with patient
* Cohorting of infected patients

1. Will your RESPTC be able to treat a pediatric patient with [insert airborne transmissible disease name] in-house or will this patient need to be transferred to a neighboring facility for definitive treatment? If the pediatric patient needs to be transferred, are there plans in place for patient transfer?
2. Do you have a policy designed to deal with a neonate?

Considerations:

* Parents who wish to stay with a PUI infant
* Father (or other relative) who wishes to stay with PUI infant born to an infected mother
* Breastfeeding policy

**INJECT:** Multiple pediatric patients arrive who have had close contact through nursey school with the now confirmed [insert respiratory disease name] pediatric patient. With limited numbers of AIIR rooms, would your facility consider cohorting of pediatric patients with similar epidemiological linkage and signs/symptoms? If so, how? If not, why?

## Module 5: Waste Management

## Key Issues

* Waste management
* Decontamination

## Questions

1. Do you have special processes related to waste management for a patient with suspected [insert airborne transmissible disease name]?

Considerations:

* Waste management plan for Category A infectious substance
* Waste management plan for Category B infectious substance
* Medical waste regulations

1. What will be the step-wise process for waste management for a patent with confirmed [insert airborne transmissible disease name]?

Considerations:

* + Decontaminating patient room, equipment, patient care area
  + Consider mechanism for terminal cleaning (if applicable)
    1. Securing all areas until termination of cleaning
    2. Who will perform terminal cleaning? Will it be an external vendor? If so, is there a protocol to contact and initiate process?
    3. Protocols in place to protect EVS team if cleaning is done in-house
  + Risk communication to internal staff (e.g., environmental services, clinical staff, patients, community)

1. How long will the infectious organism of [insert airborne transmissible disease name] stay viable in the air after your patient is discharged?
2. Do you have a decontamination strategy that will effectively address the potential for viable airborne organisms?

## Module 6: Surgical Intervention

## Scenario

**Day Two of Admission**

The 50-year old husband requires an emergency laparotomy.

## Key Issues

* Surgical intervention

## Questions

1. Does your RESPTC have special plans or procedures related to emergency invasive surgical interventions (e.g., laparotomy) or elective interventions (e.g., tracheotomy) for a patient with suspected or confirmed [insert airborne transmissible disease name]?

Considerations:

* Patient disease-status (e.g., risk of death from current severity of their disease, risk of death from surgical intervention, risk of exposure to the OR team)
* Risk analysis and mitigation (e.g., aerosol generation)
* Enhanced PPE requirements and appropriate training and competency
* Transportation to and from operating room (e.g. clear and secure pathway)
* Administration of anesthesia (e.g., intubated vs. non-intubated patients)
* Preoperative briefing with family members, perioperative team and hospital leadership
* Appropriate equipment and supplies in OR (e.g., anticipated medications, emergency medications, etc.)
* Intra-operative conduct (e.g., entry and exit from OR once patient enters OR)
* Perioperative staff monitoring
* Decontamination of room, equipment and supplies

## Module 7: Decedent Management

## Scenario

**Day Five**

Approximately five days after hospital admission, the 50-year-old husband expires from multi-organ failure.

## Key Issues

* Highly infectious disease decedent management

## Questions

1. Where will the deceased patient be placed until a confirmatory diagnosis is made?
2. Do you have special processes or agreements related to handling highly infectious disease patient remains?
3. How will this be coordinated with your respective local/state Department of Health, and what regulations/requirements may be in place to govern these decisions (i.e. quarantine and isolation regulations?).

Considerations:

* Packaging of infectious patient remains
* Body disposition
* Crematory or funeral home willing and trained to handle patient remains
* Personal protective equipment
* Chain of custody
* Safe transport to crematorium or funeral home
* Transport safety (i.e. Spill kit, containers)
* Family care after the loss of a patient

## Module 8: Labor/Delivery

## Scenario

**Day Seven**

The 43-year-old female currently 33 weeks pregnant with an LMP is of [insert last menstrual date] and EDC of [insert estimated date of confinement] is positive for [insert airborne transmissible disease name]. She has been receiving ongoing care at your RESPTC. On day seven of patient’s admission to the RESPTC, the patient has gone into premature labor with uterine contractions occurring every 10 minutes.

## Key Issues

* Care of laboring patient
* Delivery of infant
* Care of PUI infant

## Questions

The following questions are provided as suggested subjects that we may address as the discussion progresses. These questions are not meant to constitute a definitive list of concerns to be addressed, nor is there a requirement to address every question.

1. Does your RESPTC have special plans or procedures related to care and delivery of an obstetrical patient with suspected or confirmed [insert airborne transmissible disease name]?

Considerations:

* Obstetric interventions and outcomes of case
* Role of internal and external hospital contacts in assessing and guiding management of patient and reviewing care plan (e.g., hospitals healthcare providers, nursing directors, laboratory director, environmental services staff, anesthesiologists, hospital administration, local/state department of health)
* Peripartum and postpartum obstetric care
* Patient disease-status and potential to complicate delivery (e.g., risk of death from current severity of their disease, risk of death from vaginal delivery vs. caesarian, risk of exposure to the delivery team)
* Enhanced precautions taken during labor and delivery
* Enhanced PPE requirements and appropriate training and competency
* Risk analysis and mitigation (e.g., aerosol generation)
* Obstetric anesthetic plan/pain control (e.g., spinal anesthesia)
* Laboratory services for [insert airborne transmissible disease name] for neonate
* Plans for intrauterine fetal death, stillbirth, or neonatal death
* Infection control processes/procedures in obstetric services
* Point-of-imaging equipment (e.g., bedside diagnostic ultrasound)
* Appropriate equipment and supplies in OR (e.g., anticipated medications, emergency medications, etc.)
* Perioperative staff monitoring
* Decontamination of room, equipment and supplies

1. Does your RESPTC have special plans or procedures related to care of the neonate with suspected or confirmed [insert airborne transmissible disease name]?

Considerations:

* Isolation of neonate from mother
* Feeding of neonate (e.g., breastfeeding policy, donor breast milk or ready to use infant formula )
* Neonate patient care team PPE
* Monitoring and routine care of neonate and assessing for signs of infection and other changes in behavior (e.g., uncontrollable crying, excessive sleepiness, not feeding well)
* Care of neonate during isolation (e.g., infection control considerations, age-appropriate equipment and supplies)
* Laboratory specimen collection of neonate
* Circumcision consideration
* Invasive (e.g., immunizations, heel stick screening) and non-invasive screening tests (e.g., heart screening)
* Involvement of family members (e.g., allowing family members/visitors, risk and benefit consideration, use of videoconference technology)
* Plans to discharge neonate with no signs of infection and negative results of [insert airborne transmissible disease name]

# 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 |
| **60 minutes** | Exercise 1: Unit Activation, Transport and Patient Care for [Stable or Critical] [insert airborne transmissible disease name] Patient   * Module 1 * Module 1B * Module 2 * Module 3 |
| **45 minutes** | Exercise 2: Admit a Walk-In Patient from Regional Ebola and Other Special Pathogen Treatment Center's Emergency Department (ED)   * Module 1 * Module 2 |
| **180 minutes** | Exercise 3: Planning for Special Considerations for Regional Ebola and Other Special Pathogen Treatment Center   * Module 1 * Module 2 * Module 3 * Module 4 * Module 5 * Module 6 * Module 7 * Module 8 |
| **30 minutes** | Hot Wash/Closing Remarks/Participant Feedback Forms |
| **Varies** | Facilitator/Evaluator Debrief |

\* Select/edit appropriate modules as per your exercise objectives.

# Appendix B: Invited Exercise Participants

Members of the following agencies were invited to participate in this exercise:

|  |
| --- |
| Invited Organizations |
| **Local (City/County)** |
| **[Agency/Department 1]** |
| **[Agency/Department 2]** |
| **State** |
| **[Agency/Department 1]** |
| **[Agency/Department 2]** |
| **Federal** |
| **[Agency/Department 1]** |
| **[Agency/Department 2]** |
| **Other** |

# Appendix C: Relevant Plans

The plans listed below are associated with the response actions described in this exercise:

**Facility**

* **[Document name]**
* **[Document name]**

**Other [State/Federal]**

* **[Document name]**
* **[Document name]**

# Appendix D: After Action Report/Improvement Plan (AAR/IP)

# Exercise Overview

|  |  |
| --- | --- |
| **Exercise Name** | 2016-2017 Regional Ebola and Other Special Pathogens Treatment Center Tabletop Exercise |
| **Exercise Dates** | Month XX, XXXX |
| **Scope** | Regional Ebola and Other Special Pathogens Treatment Center: The exercise will focus on how Regional Ebola and Other Special Pathogens Treatment Center's respond to a patient with suspected and confirmed airborne transmitted special pathogen. |
| **Mission Area(s)** |  |
| **Target Capabilities** | * Foundation for Health Care and Medical Readiness * Health Care and Medical Response Coordination * Continuity of Health Care Service Delivery * Medical Surge |
| **Objectives** | 1. Evaluate the Regional Ebola and Other Special Pathogen Treatment Center to coordinate transportation arrangements, and receive a patient with [suspected or confirmed] [insert airborne transmissible disease name] for evaluation, treatment and admission within an appropriate time frame. 2. Exercise the notification and communication processes internally with rostered staff and externally between local, state, and federal public health, EMS, and other healthcare delivery system partners, Assessment Hospitals, ETCs, and the Regional Ebola and Other Special Pathogen Treatment Center, as well as media management. 3. Evaluate EMS capabilities, and determine the most appropriate method for transportation (e.g., air versus ground.)  * Management of [stable or critical] patient or PUI transported by ground EMS personnel * Evaluate the management of patient undergoing air transportation and coordination with ground EMS personnel for [stable or critical] patient or PUI  1. Evaluate just-in-time PPE don / doff training resources and PPE availability for EMS, and other healthcare delivery system personnel, including the RESPTC. 2. Assess policies and procedures governing care of patient at the Regional Ebola and Other Special Pathogen Treatment Center 3. Assess planning for special considerations (e.g., surge capacity, laboratory services, diagnostic radiological imaging, pediatric patient, waste management, decedent management, labor/delivery, surgical intervention) 4. [List any additional exercise objectives] |
| **Threat or Hazard** | Airborne transmitted special pathogen |
| **Scenario** | Highly Infectious Disease Management |
| **Sponsor** | Special pathogen health care system preparedness, response, and the development of a regional special pathogen treatment strategy were supported by ASPR through HPP. |
| **Participating Organizations** |  |
| **Point of Contact** |  |

**Analysis and Improvement Recommendations**

**Issue 1:** Record your top areas of improvement here. Be sure to elaborate on your findings (what happened) specific to your organization and what you think should be done to improve your processes.

**Issue 2:**

**Issue 3:**

**Issue 4:**

**Issue 5:**

**Issue 6:**

# Analysis of Target Capabilities

Aligning exercise objectives and target capabilities provides a consistent taxonomy for evaluation that transcends individual exercises to support preparedness reporting and trend analysis. Table 1 includes the exercise objectives, aligned target capabilities, and performance ratings for each target capability as observed during the exercise and determined by the evaluation team.

| Objective | Target Capability | Performed without Challenges (P) | Performed with Some Challenges (S) | Performed with Major Challenges (M) | Unable to be Performed (U) |
| --- | --- | --- | --- | --- | --- |
| [Objective 1] | [Target capability] |  |  |  |  |
| [Objective 2] | [Target capability] |  |  |  |  |
| [Objective 3] | [Target capability] |  |  |  |  |
| [Objective 4] | [Target capability] |  |  |  |  |
| **Ratings Definitions:**   * Performed without Challenges (P): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. * Performed with Some Challenges (S): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. However, opportunities to enhance effectiveness and/or efficiency were identified. * Performed with Major Challenges (M): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s), but some or all of the following were observed: demonstrated performance had a negative impact on the performance of other activities; contributed to additional health and/or safety risks for the public or for emergency workers; and/or was not conducted in accordance with applicable plans, policies, procedures, regulations, and laws. * Unable to be Performed (U): The targets and critical tasks associated with the core capability were not performed in a manner that achieved the objective(s). | | | | | |

Table 1. Summary of Target Capability Performance

The following sections provide an overview of the performance related to each exercise objective and associated target capability, highlighting strengths and areas for improvement.

**[Objective 1]**

The strengths and areas for improvement for each target capability aligned to this objective are described in this section.

**[List Applicable Target Capabilities]**

**Strengths:**

The [full or partial] capability level can be attributed to the following strengths:

**Strength 1:** [Observation statement]

**Strength 2:** [Observation statement]

**Areas for Improvement:**

The following areas require improvement to achieve the full capability level:

**Area for Improvement 1:** [Observation statement. This should clearly state the problem or gap; it should not include a recommendation or corrective action, as those will be documented in the Improvement Plan.]

**Reference:** [List any relevant plans, policies, procedures, regulations, or laws.]

**Analysis:** [Provide a root cause analysis or summary of why the full capability level was not achieved.]

**Area for Improvement 2:** [Observation statement]

**Reference:** [List any relevant plans, policies, procedures, regulations, or laws.]

**Analysis:** [Provide a root cause analysis or summary of why the full capability level was not achieved.]

**[Objective 2]**

The strengths and areas for improvement for each target capability aligned to this objective are described in this section.

**[List Applicable Target Capabilities 2]**

**Strengths:**

The [full or partial] capability level can be attributed to the following strengths:

**Strength 1:** [Observation statement]

**Strength 2:** [Observation statement]

**Areas for Improvement:**

The following areas require improvement to achieve the full capability level:

**Area for Improvement 1:** [Observation statement. This should clearly state the problem or gap; it should not include a recommendation or corrective action, as those will be documented in the Improvement Plan.]

**Reference:** [List any relevant plans, policies, procedures, regulations, or laws.]

**Analysis:** [Provide a root cause analysis or summary of why the full capability level was not achieved.]

**Area for Improvement 2:** [Observation statement]

**Reference:** [List any relevant plans, policies, procedures, regulations, or laws.]

**Analysis:** [Provide a root cause analysis or summary of why the full capability level was not achieved.]

# Improvement Plan

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

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

# Appendix E: Participant Feedback Form

Name (optional):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Facilities represented: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Participant Recommendations and Corrective Actions**

1. Based on your facility actions and your opinions (not the results of the hotwash), list the top three strengths you identified.

|  |
| --- |
|  |
|  |
|  |

1. Based on your facility actions and your opinions (not the results of the hotwash), list the top areas you identified that are in need of improvement.

|  |
| --- |
|  |
|  |
|  |

The information you provide in this document will be used to inform the After Action Report and After Action Conference.

##### Overall program rating:

* Excellent
* Above average
* Average
* Fair
* Poor

Please provide any recommendations on how this exercise or future exercises could be improved and/or enhanced.

|  |
| --- |
|  |
|  |
|  |
|  |
|  |

# Appendix F: Acronyms and Abbreviations

The following acronyms and abbreviations appear in this document and/or are likely to be heard during exercise discussion.

| **Acronym** | **Term** |
| --- | --- |

AAR After Action Report

AAR/IP After Action Report/Improvement Plan

AIIR Airborne Infection Isolation Room

AM Active monitoring

ASPR Office of the Assistant Secretary for Preparedness and Response

CDC Centers for Disease Control and Prevention

DAM Direct active monitoring

ED Emergency Department

EMS Emergency Medical Services

ETC Ebola Treatment Centers

EVD Ebola virus disease

HPP Hospital Preparedness Program

HSEEP Homeland Security Exercise and Evaluation Program

NETEC National Ebola Training and Education Center

PIU Portable isolation unit

POC Point of Contact

PPE Personal Protective Equipment

PUI Person under Investigation

RESPTC Regional Ebola and Other Special Pathogen Treatment Center

SitMan Situation Manual

SME Subject matter expert

TTX Tabletop exercise

1. https://www.phe.gov/Preparedness/planning/hpp/reports/Documents/2017-2022-healthcare-pr-capablities.pdf [↑](#footnote-ref-1)
2. Capability Elements are: Planning, Organization, Equipment, Training, or Exercise. [↑](#footnote-ref-2)