
# Alaska Department of Health and Social Services

# Ebola Virus Disease Response Plan

Version 5

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**What's new since the last version (version 5, 12/22/15):**

- Removal of monitoring for travelers from Sierra Leone

**What's new since the last version (version 4, 9/21/15):**

- Removal of monitoring for travelers from Liberia

**What's new since the last version (version 3, 1/7/15):**

- Change in monitoring policies for travelers from Liberia

**What's new since the last version (version 2, 11/17/14):**

- Removal of Mali from the nations of risk
- Specification of workers remaining on their conveyance as being of No Identifiable Risk

**What's new since the last version (version 1, 11/4/14):**

- Update to the nations of risk to include Mali

## State of Alaska Ebola Virus Disease Response Plan Introduction

The largest Ebola Virus Disease (EVD) epidemic in history is currently occurring in West Africa. Should one or more cases of EVD occur in Alaska, a coordinated response, involving multiple partner agencies and facilities will be critical to quickly and safely care for the patient(s) and minimize the risk of exposure to others in occupational and community settings. This plan presents guidelines and procedures on how to respond to one or more persons suspected or confirmed to have EVD in Alaska. Much of the information presented here is obtained directly from Centers for Disease Control and Prevention (CDC) guidance documents. This plan will be updated frequently throughout the course of the EVD epidemic.

# Ebola Virus Disease Overview

**Disease History**

Ebola Virus Disease (EVD) is a rare and often fatal disease that can cause illness in humans and nonhuman primates (e.g., monkeys, gorillas, and chimpanzees). It was first discovered in 1976 near the Ebola River in the Democratic Republic of the Congo, which was formerly known as Zaire. It is part of the Filoviridae family of viruses, and bats are the likely reservoir.

**Transmission**

EVD spreads through direct contact with the blood or bodily fluids (e.g., urine, saliva, sweat, feces, vomit, breast milk, and semen) of a person ill with or who has died from EVD; objects contaminated with blood or bodily fluids of an ill person or infected fruit bats and primates. EVD is not spread through the air, by water, or, in general, by food.

**Symptoms**

Symptoms of EVD in humans typically appear 8–11 days after infection (range: 2–21 days), and include fever, severe headache, muscle pain, weakness, diarrhea (sometimes bloody), vomiting, abdominal pain, and unexplained hemorrhage (bleeding or bruising). There is no cure for EVD, and recovery depends largely on timely diagnosis, provision of adequate supportive care, and the infected individual's immune response.

**2014-2015 West Africa Outbreak**

The EVD epidemic in West Africa is the largest in history, affecting multiple countries in West Africa. A current list of the affected countries can be found at www.cdc.gov/vhf/ebola/. Details regarding case counts and country classification can be found at: http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/case-counts.html

**Ebola Virus Disease in the United States**

EVD burden has been limited to four cases diagnosed in the United States. The first case was in a man who travelled from the affected area; he was the source of infection for two healthcare workers at the Dallas hospital where he was treated. The first EVD patient has since passed away, and the two healthcare workers who cared for him and subsequently developed EVD recovered. Additionally, a volunteer healthcare worker who was working in the affected area in West Africa developed EVD after returning to his home in New York; he also recovered. Several other EVD case-patients have been brought back to the U.S. for treatment.

# Ebola Response Task Force

**Purpose**

In August 2014, DHSS created a Task Force to coordinate plans to respond effectively and efficiently to suspected or confirmed cases of Ebola Virus Disease (EVD) in Alaska.

**Composition**

The Ebola Response Task Force is a body composed of the Department of Health and Social Services (DHSS) Sections of Epidemiology (SOE), Emergency Programs (SEP), Laboratories (ASPHL)and Public Health Nursing (PHN); the DHSS Public Information Office (PIO); the CDC Anchorage Quarantine Station; Health and Human Services (HHS) Region X; Joint Task Force Alaska (JTF-Alaska); District 17 Coast Guard; the Alaska National Guard; the Alaska Primary Care Association (APCA); the Alaska State Hospital and Nursing Home Association (ASHNHA); the Alaska Native Tribal Health Consortium (ANTHC); and the Municipality of Anchorage Department of Health and Human Services (DHHS).

**Activities**

Members of the Task Force have participated in a number of activities, including the following:

- Met and shared EVD updates, response, and guidance information with key stakeholders
- Hosted weekly Ebola Q&As with community public health and preparedness partners
- Developed the State's EVD Response Plan
- Performed grand rounds with healthcare partners either in-person or via video-teleconference to assure a facility's ability to safely care for an Ebola patient

# Annex A. Travel Screening

**Purpose**

This annex provides guidance for healthcare providers in obtaining patient travel histories and gives an overview of travel screening at international ports of exit and national ports of entry.

**Situation**

Travel screening will occur in several settings, including: exit screening in affected counties, enhanced entry screening in five U.S. airports, and healthcare provider screening of ill patients for recent travel. This travel screening guidance was last updated effective June 17, 2015.

**Partners**

This annex was developed in consultation with the U.S. Centers for Disease Control and Prevention (CDC).

**Assumptions**

The Section of Epidemiology will serve as the first point of contact for healthcare providers who are seeing a patient suspected of having Ebola Virus Disease (EVD).

**Procedures**

*Step 1. Exit Screening at Airports in Affected Areas*

- Exit screening is being conducted at airports in the outbreak-affected countries to identify ill travelers or individuals exposed to EVD. These individuals will be prohibited from boarding an aircraft until it is safe for them to travel.
- Exit screening assesses travelers with a temperature check, a visual assessment for signs of potential illness, and a series of questions about their health and exposure history.
- Travelers with signs of illness or an exposure history are separated for further evaluation, which will determine whether they can continue to travel or will be prohibited from air travel and referred to public health authorities for monitoring and follow-up.

*Step 2. Entry Screening at U.S. Ports of Entry*

- All travelers from the affected countries must enter the United States at the five ports of entry with enhanced screening. These ports of entry are:
    - JFK International Airport – New York, NY
    - Newark Liberty International Airport – Newark, NJ
    - Chicago O'Hare International Airport – Chicago, IL
    - Dulles International Airport – Dulles, VA
    - Hartsfield-Jackson International Airport – Atlanta, GA
- U.S. Customs and Border Protection (CBP) officers, in conjunction with CDC, are assessing travelers for risk of EVD illness/exposure upon arrival at the airport.

- Travelers are given a temperature check, a visual assessment for signs of potential illness, and a series of questions about their health and exposure history. They are also provided with a CARE Kit that includes disease-specific information for patients and physicians, as well as a thermometer, a temperature log, and information on what to do if illness develops.
- Travelers with a history of EVD exposure or who have signs and symptoms consistent with EVD are referred by CBP to CDC for evaluation. CDC will determine whether the traveler can continue traveling; if they should be transported to a hospital for evaluation, testing, and treatment; or if they should be referred to their local health authority for monitoring and support.
- Additionally, CBP is working with appropriate authorities to determine mechanisms to identify travelers who may have extended stop-overs or indirect routings that would otherwise obscure the origination point of travel.

- Note: As of December 22, 2015, travelers from Sierra Leone (and Liberia) will no longer require any type of monitoring. According to the Centers for Disease Control and Prevention, travelers from Sierra Leone (and Liberia) will no longer be funneled through selected airports, and states will no longer receive notification of their arrival. Travelers departing Sierra Leone before December 22, 2015, will continue their current monitoring until completed.

*Step 3. Travel Screening for Healthcare Providers*

- Healthcare providers should routinely obtain a travel history from patients to assess their risk of potential EVD exposure. When performing the travel screening, healthcare workers should ask about the specifics of symptoms, travel dates, and locations.

| Category | Specifics | Action |
|---|---|---|
| **Symptoms** | Fever, subjective or >100.4 F (38.0 C) OR any of the following:<br>• severe headache<br>• muscle pain<br>• vomiting<br>• diarrhea<br>• abdominal pain<br>• unexplained bleeding or bruising | **If these symptoms are present and began within 21 days of travel to Guinea,* contact the Section of Epidemiology (SOE) immediately at:**<br>**907-269-8000** |
| **Travel Location** | Guinea *only** <br>as of 12/22/2015 | If patient did not travel to these countries, work-up the patient for a non-EVD illness. There is no need to contact SOE. |
| **Travel Dates** | Did symptoms occur **within 21 days** of being in a country listed above? | If symptoms occurred outside of the 21 day window, work-up the patient for a non-Ebola illness. There is no need to contact SOE. |

** Liberia and Sierra Leone have been removed from the list of nations with widespread EVD, no monitoring is necessary as of December 22, 2015.*

*Additional Alaska-specific Information:*

- Alaska has no direct flights from the two impacted West African countries.
- DHSS is not aware of anybody in Alaska who has had direct contact with EVD patients in the past 21 days.
- Alaska-specific EVD updates are posted to the Section of Epidemiology website at www.epi.alaska.gov/id/dod/ebola/default.htm

# Annex B. Infection Control

**Purpose**

The purpose of this annex is to outline CDC's current guidance on infection control procedures pertaining to the transport and care of patients with suspected or confirmed Ebola Virus Disease (EVD).

**Situation**

Safe response to a suspected or confirmed case of EVD necessitates appropriate guidance on infection control procedures.

**Assumptions**

The Section of Epidemiology will be immediately notified (907-269-8000) of any person suspected to have EVD in Alaska.

**Procedures**

- Standard, contact, and droplet precautions are recommended for management of hospitalized patients with known or suspected Ebola Virus Disease (EVD; see Table). This guidance outlines only those measures that are specific for EVD; additional infection control measures might be warranted if an EVD patient has other conditions or illnesses for which other measures are indicated (e.g., tuberculosis, multi-drug resistant organisms, etc.).
- Though these recommendations focus on the hospital setting, the recommendations for personal protective equipment (PPE) and environmental infection control measures are applicable to any healthcare setting.
- In this guidance, healthcare personnel (HCP) refers all persons, paid and unpaid, working in healthcare settings who have the potential for exposure to patients and/or to infectious materials, including body substances, contaminated medical supplies and equipment, contaminated environmental surfaces, or aerosols generated during certain medical procedures. HCP include, but are not limited to, physicians, nurses, nursing assistants, therapists, technicians, emergency medical service personnel, dental personnel, pharmacists, laboratory personnel, autopsy personnel, students and trainees, contractual personnel, home healthcare personnel, and persons not directly involved in patient care (e.g., clerical, dietary, house-keeping, laundry, security, maintenance, billing, chaplains, and volunteers). **This guidance is not intended to apply to persons outside of healthcare settings**.
- As information becomes available, these recommendations will be re-evaluated and updated as needed. These recommendations are based on the following considerations:
    - High rate of morbidity and mortality among infected patients
    - Risk of human-to-human transmission
    - Lack of FDA-approved vaccines and therapeutics

- For full details of standard, contact, and droplet precautions see the *2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Setting*
- For information on symptoms of Ebola Virus Disease infection and modes of transmission, see the CDC EVD website.

**CDC's Key Components of Standard, Contact, and Droplet Precautions Recommended for Prevention of EVD Transmission in U.S. Hospitals**

(Table obtained from: http://www.cdc.gov/vhf/ebola/healthcare-us/hospitals/infection-control.html)

| Component | Recommendation | Comments |
|---|---|---|
| Patient Placement | • Single patient room (containing a private bathroom) with the door closed<br>• Facilities should maintain a log of all persons entering the patient's room | • Consider posting personnel at the patient's door to ensure appropriate and consistent use of PPE by all persons entering the patient room |
| Personal Protective Equipment (PPE) | Guidance on Personal Protective Equipment To Be Used by Healthcare Workers During Management of Patients with Ebola Virus Disease in U.S. Hospitals, Including Procedures for Putting On (Donning) and Removing (Doffing) | |
| Patient Care Equipment | • Dedicated medical equipment (preferably disposable, when possible) should be used for the provision of patient care<br>• All non-dedicated, non-disposable medical equipment used for patient care should be cleaned and disinfected according to manufacturer's instructions and hospital policies | |
| Patient Care | • Limit the use of needles and other sharps as much as possible | |

| Component | Recommendation | Comments |
|---|---|---|
| Considerations | • Phlebotomy, procedures, and laboratory testing should be limited to the minimum necessary for essential diagnostic evaluation and medical care<br>• All needles and sharps should be handled with extreme care and disposed in puncture-proof, sealed containers | |
| Aerosol Generating Procedures (AGPs) | • Avoid AGPs for patients with EVD.<br>• HCP should wear appropriate PPE during aerosol generating procedures.<br>• If performing AGPs, use a combination of measures to reduce exposures from aerosol-generating procedures when performed on Ebola HF patients.<br>• Limiting the number of HCP present during the procedure to only those essential for patient-care and support.<br>• Conduct the procedures in a private room and ideally in an Airborne Infection Isolation Room (AIIR) when feasible. Room doors should be kept closed during the procedure except when entering or leaving the room, and entry and exit should be minimized during and shortly after the procedure.<br>• Conduct environmental surface cleaning following procedures | • Although there are limited data available to definitively define a list of AGPs, procedures that are usually included are Bilevel Positive Airway Pressure (BiPAP), bronchoscopy, sputum induction, intubation and extubation, and open suctioning of airways.<br>• Because of the potential risk to individuals reprocessing reusable respirators, disposable filtering face piece respirators are preferred. |

| Component | Recommendation | Comments |
|---|---|---|
| | (see section below on environmental infection control). | |
| Hand Hygiene | • HCP should perform hand hygiene frequently, including before and after all patient contact, contact with potentially infectious material, and before putting on and upon removal of PPE, including gloves.<br>• Healthcare facilities should ensure that supplies for performing hand hygiene are available. | • Hand hygiene in healthcare settings can be performed by washing with soap and water or using alcohol-based hand rubs. If hands are visibly soiled, use soap and water, not alcohol-based hand rubs. |
| Environmental Infection Control | Interim Guidance for Environmental Infection Control in Hospitals for Ebola Virus | Interim Guidance for Environmental Infection Control in Hospitals for Ebola Virus |
| Safe Injection practices | • Facilities should follow safe injection practices as specified under Standard Precautions. | • Any injection equipment or parenteral medication container that enters the patient treatment area should be dedicated to that patient and disposed of at the point of use. |
| Duration of Infection Control Precautions | • Duration of precautions should be determined on a case-by-case basis, in conjunction with local, state, and federal health | • Factors that should be considered include, but are not limited to: presence of symptoms related to EVD, date symptoms resolved, other conditions |

| Component | Recommendation | Comments |
|---|---|---|
| | authorities. | that would require specific precautions (e.g., tuberculosis, *Clostridium difficile*) and available laboratory information. |
| Monitoring and Management of Potentially Exposed Personnel | • Facilities should develop policies for monitoring and management of potentially exposed HCP, and work collaboratively with the State Health Department in orchestrating the monitoring of contacts<br>• Facilities should develop sick leave policies for HCP that are non-punitive, flexible and consistent with public health guidance<br>o Ensure that all HCPs, including staff who are not directly employed by the healthcare facility but provide essential daily services, are aware of the sick leave policies<br>• Persons with percutaneous or mucocutaneous exposures to blood, body fluids, secretions, or excretions from a patient with suspected EVD should<br>o Stop working and immediately wash the affected skin surfaces with soap and water. Mucous membranes (e.g., conjunctiva) should be irrigated with copious amounts of water or eyewash solution<br>o Immediately contact occupational health/supervisor for | |

| Component | Recommendation | Comments |
|---|---|---|
| | assessment and access to postexposure management services for all appropriate pathogens (e.g., HIV, HCV, etc.)<br>• HCP who develop sudden onset of fever, intense weakness or muscle pains, vomiting, diarrhea, or any signs of hemorrhage after an unprotected exposure (i.e. not wearing recommended PPE at the time of patient contact or through direct contact to blood or body fluids) to a patient with EVD should<br>o Not report to work or should immediately stop working<br>o Notify their supervisor<br>o Seek prompt medical evaluation and testing<br>o Notify local and state health departments<br>o Comply with work exclusion until they are deemed not infectious to others<br>• For asymptomatic HCP who had an unprotected exposure (i.e., not wearing recommended PPE at the time of patient contact or through direct contact to blood or body fluids) to a patient with EVD<br>o Should receive medical evaluation and follow-up care including fever monitoring twice daily for 21 days after the last known exposure.<br>o Hospitals should consider policies ensuring twice daily | |

| Component | Recommendation | Comments |
|---|---|---|
| | contact with exposed personnel to discuss potential symptoms and document fever checks | |
| Monitoring, Management, and Training of Visitors | • Avoid entry of visitors into the patient's room<br>  o Exceptions may be considered on a case by case basis for those who are essential for the patient's wellbeing.<br>• Establish procedures for monitoring managing and training visitors.<br>• Visits should be scheduled and controlled to allow for:<br>  o Screening for EVD (e.g., fever and other symptoms) before entering or upon arrival to the hospital<br>  o Evaluating risk to the health of the visitor and ability to comply with precautions<br>  o Providing instruction, before entry into the patient care area on hand hygiene, limiting surfaces touched, and use of PPE according to the current facility policy while in the patient's room<br>  o Visitor movement within the facility should be restricted to the patient care area and an immediately adjacent waiting area. | • Visitors who have been in contact with the EVD patient before and during hospitalization are a possible source of EVD for other patients, visitors, and staff. |

# Annex C. Notification Protocol

**Purpose**

The purpose of this annex is to outline the communication protocol among partners related to a suspected or confirmed Ebola Virus Disease (EVD) case.

**Situation**

Timely and effective response to a suspected or confirmed case of EVD necessitates clear delineation of roles and responsibilities and strong lines of communication.

**Assumptions**

The Section of Epidemiology is the lead state agency for Ebola planning, investigation, surveillance, and information dissemination.

The Section of Emergency Programs serves as the coordinating entity to ensure all partners are working together to communicate needs and resources regarding care for a patient with Ebola, while also maintaining caregiver and public health safety.

**Procedures**

*Step 1*

- The Section of Epidemiology receives notification of a suspected case of EVD from a healthcare provider, a person being monitored for EVD because of their potential exposure risk, or anybody else (notification line: 907-269-8000).

*Step 2*

- If the patient meets the U.S. Centers for Disease Control and Prevention (CDC) case definition of a person under investigation (available at: http://www.cdc.gov/vhf/ebola/hcp/case-definition.html), the Section of Epidemiology, in collaboration with CDC, will provide technical assistance regarding patient management.
- The Section of Epidemiology will notify the CDC Emergency Operations Center (770-488-7100).
- If requested, the Section of Emergency Programs will provide technical assistance regarding Hospital Incident Command System (HICS) or support HICS with an Incident Management Team.

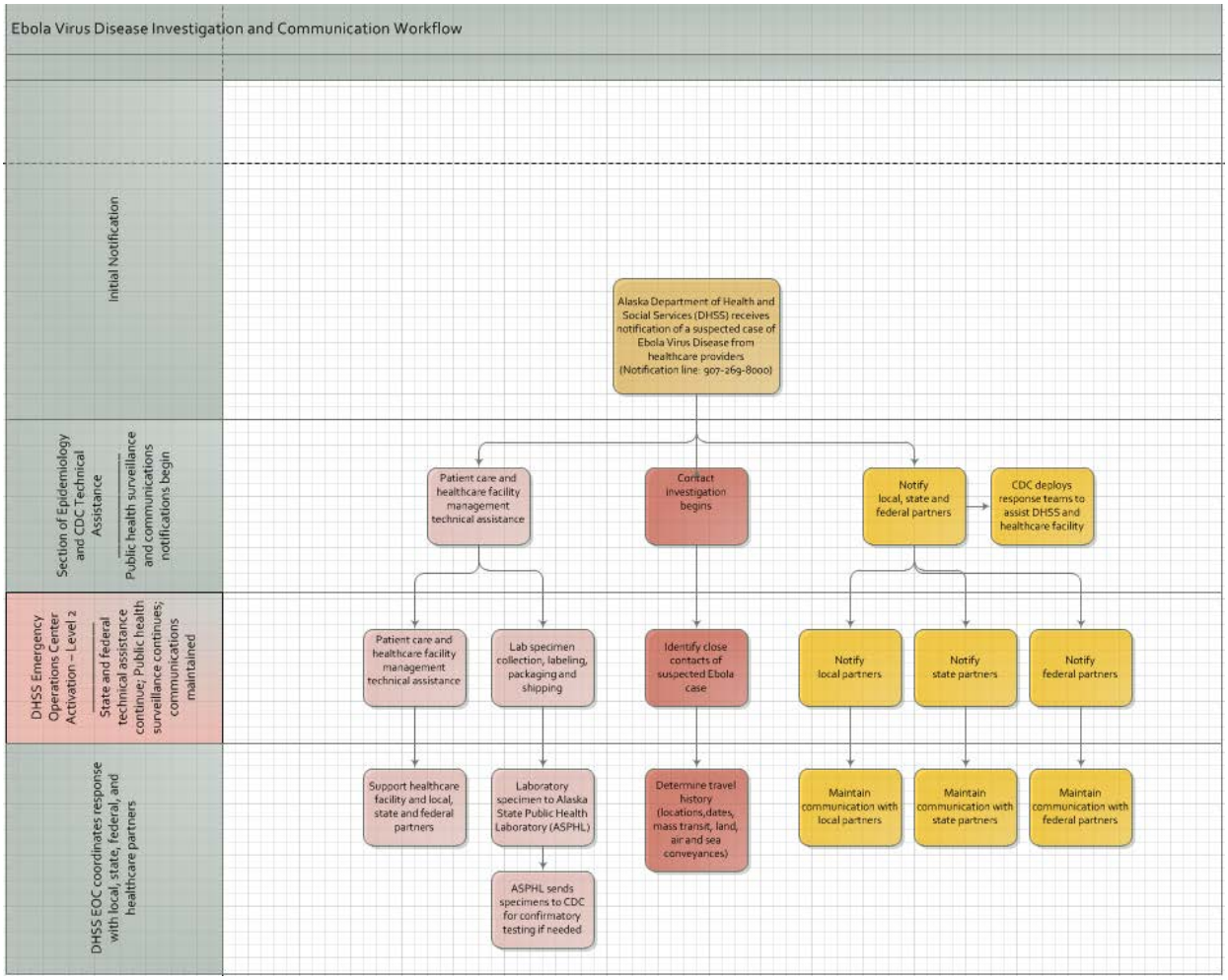
*Step 3*

- In parallel with the delivery of technical assistance, the Sections of Epidemiology and Emergency Programs will notify key local, state, and federal partners, and initiate public health surveillance and contact investigation. This notification will include contacting the appropriate patient care facility (e.g., hospital, emergency department, etc.) prior to patient transport to the facility.
- The DHSS Emergency Operations Center will activate to Level 2 or 3, depending upon the situation.

- The ICS structure will be established, and members of the command and general staff will begin to coordinate response and communication with local, state, and federal partners.
- The Section of Epidemiology (in conjunction with CDC) will provide ongoing technical assistance regarding patient management and work with CDC to identify potentially exposed contacts.

*Step 4*

- The DHSS Emergency Operations Center will maintain communication with (and provide support to) the healthcare facility and local, state, and federal partners.
- The Section of Epidemiology will work with the healthcare facility and the Alaska State Public Health Laboratory on EVD clinical testing.
- The Section of Epidemiology will provide ongoing surveillance and contact investigative work.



# Annex D. Air and Ground Transportation

## Air Medical Transportation

### Purpose

The purpose of this annex is to establish how the State of Alaska will support air medical transport coordination of a patient with suspected or confirmed Ebola Virus Disease (EVD).

### Situation

Air transport is a vital component of travel within Alaska. Given the vast distance between locations and the fact that many communities are accessible only by air or water, air transport is a necessary planning element when preparing for any type of emergency in Alaska.

Although the risk of a patient with EVD presenting within Alaska is lower than in most states due to our comparatively small population and the small number of people living in Alaska from the affected West African countries, one or more cases of EVD could occur in Alaska throughout the course of this unprecedented EVD epidemic. Therefore, the Alaska Department of Health and Social Services has reached out to multiple air medical transport entities to engage critical partners in the EVD patient transportation planning process.

### Partners

Resources and procedures described in this plan were created in consultation with many air transport partners, including:

- Joint Base Elmendorf Richardson (JBER)
- The U.S. Coast Guard (District 17)
- Airlift Northwest
- Guardian Flight
- LifeFlight Air Ambulance
- LifeMed Alaska
- Phoenix Air

### Assumptions

- The Section of Epidemiology will serve as the first point-of-contact for caregivers who have a suspected EVD patient (907-269-8000), and the lead state agency regarding Ebola surveillance, and case/contact investigations.
- The Section of Emergency Programs serves as the coordinating entity to ensure all partners are working together to communicate needs and resources regarding care for a patient with Ebola, while also maintaining caregiver and public health safety.
- All air medical transport entities that are partners in this plan are aware of the CDC Guideline *Air Medical Transport for Patients with EVD*.

- If air medical transport is requested, the Sections of Epidemiology and Emergency Programs will be actively working with all parties involved in patient care to assure robust communication.

## Procedures

The procedures described in this plan pertain to air medical transport only. It is assumed that all other steps have taken place to transport the patient to initial care, and to isolate and coordinate care for the patient with suspected or confirmed Ebola.

*Step 1*

- When it is suspected that an individual may have EVD, the Section of Epidemiology (907-269-8000) should be the first point of contact.

*Step 2*

- Air medical transport of a patient with suspected or confirmed EVD will be coordinated with the Section of Emergency Programs via the 24-hour Health and Medical Duty Officer (907-903-3721).
- When requesting air medical transport for a patient with suspected EVD, the requesting party must provide information about the patient's exposure history and current symptoms.

*Step 3*

- The Section of Emergency Programs will engage in ongoing planning and will maintain current information from air transport entities operating within Alaska.
- Upon receiving a call requesting air medical transport of a patient with suspected or confirmed EVD, the Section of Emergency Programs will contact the appropriate air transport entity based upon their current reported capabilities.
- While the Section of Emergency Programs makes the initial call to the air transport entity, the air transport entity and the facility currently providing patient care will have direct contact to ensure that all required air medical transport procedures are followed.

*Step 4*

- Preparation for safe transport of a patient with suspected or confirmed EVD takes more time than is usually needed for air transport to respond to a call for assistance.
- The Section of Emergency Programs will work with the air transport entity and the facility providing care to the patient to ensure that information regarding timelines for transport is conveyed to all critical partners.

*Step 5*

- Throughout all aspects of the air medical transport process, the Section of Emergency Programs will work with all entities to ensure that information regarding challenges, unexpected delays, and final patient disposition are communicated to necessary parties.

- In collaboration with CDC, the Section of Epidemiology will provide recommendations regarding disinfecting conveyances after patient transport. Some information is currently available online (see: http://www.cdc.gov/vhf/ebola/healthcare-us/emergency-services/air-medical-transport.html).

## Ground Medical Transportation

### Purpose

The purpose of this annex is to establish how the State of Alaska will support ground medical transport coordination of a patient with suspected or confirmed Ebola Virus Disease (EVD).

### Situation

Ground transport is a vital component of travel within Alaska. Though the risk of a patient with EVD presenting within Alaska is lower than in most states due to our comparatively small population overall and the small number of people living in Alaska from the affected West African countries, it is important to be proactive and plan for a possible case of EVD in Alaska. Therefore, the Alaska Department of Health and Social Services has reached out to the Emergency Medical Services system to engage critical partners in the patient transportation planning process.

### Partners

Resources and procedures described in this plan were created in consultation with the following ground transport partners:

- Section of Emergency Programs: Emergency Medical Services (EMS)

### Assumptions

This annex was created using the following assumptions:

- Local jurisdictions determine whether 9-1-1 Public Safety Answering Points (PSAPs)/dispatchers ask questions related to Ebola Virus Disease and its risk factors.
- PSAPs and EMS will follow their normal procedures.
- The Section of Epidemiology will be notified as soon as possible if PSAP or EMS staff become aware of a patient with a travel history and signs/symptoms compatible with EVD.
- The Section of Emergency Programs serves as the coordinating entity to ensure all partners are working together to communicate needs and resources regarding care for a suspected or confirmed patient with EVD, while also maintaining caregiver and public health safety, after Section of Epidemiology is notified.
- The Section of Epidemiology is the lead state agency in regards to EVD patient planning, investigation, surveillance, and information dissemination.
- The Section of Epidemiology will serve as the first point of contact for prehospital providers who have a suspected or confirmed patient with EVD.
- All ground medical transport entities who are partners in this plan are aware of the CDC Guideline *Interim Guidance for Emergency Medical Services (EMS) Systems and 9-1-1- Public*

*Safety Answering Points (PSAPs) for the Management of Patients with Known or Suspected EVD in the United States*.

## Procedures

The procedures described in this plan pertain to ground medical transport from the point after the Section of Epidemiology is notified. It is assumed that all other steps have taken place to transport the patient from their homes or original location to the initial point of care and to isolate and coordinate care for the patient with suspected or confirmed EVD.

*Step 1*

- When it is suspected that an individual may have EVD, the Section of Epidemiology (907-269-8000) should be immediately contacted.

*Step 2*

- Preparation for safe ground transport of a patient with suspected or confirmed EVD may take more time than is usually needed for ground transport to respond to a call for assistance.
- The Section of Emergency Programs will work with the ground transport entity, as well as the parties involved in currently providing care to the patient, to ensure that information regarding timelines for transport is conveyed to the appropriate partners.

*Step 3*

- Throughout all aspects of the ground medical transport process, from the initial point of care to a higher level of care, the Section of Emergency Programs will work with all entities to ensure that information regarding challenges, unexpected delays, and final patient disposition are communicated to necessary parties.
- In collaboration with CDC, the Section of Epidemiology will provide recommendations regarding disinfecting conveyances after patient transport. Some information is currently available online (see: http://www.cdc.gov/vhf/ebola/healthcare-us/emergency-services/air-medical-transport.html).

# Annex E. Active Monitoring, Isolation, and Quarantine

## Purpose

The Active Monitoring annex will detail the Alaska-specific guidance on active monitoring for people with potential exposure to Ebola Virus Disease (EVD).

## Situation

The Alaska Department of Health and Social Services is working with hospitals, healthcare providers, and other key partners statewide to ensure that Alaska is prepared for the possibility of a traveler developing symptoms of EVD while in Alaska. DHSS is prepared to conduct active monitoring with anyone in Alaska who has recently been in one of the West African countries that is currently experiencing widespread transmission of EVD (i.e., Guinea). This monitoring will consist of a minimum of twice-daily temperature and symptom screening on these individuals, and may include restrictions to allowed activities (e.g., travel, work, etc.), to be determined on a case-by-case basis, according to their exposure risk. EVD-related restrictions or monitoring is not warranted for travelers coming from other countries in Africa that are not experiencing an EVD outbreak (or elsewhere in the world).

Note: As of December 22, 2015, travelers from Sierra Leone (and Liberia) will no longer require any type of monitoring. According to the Centers for Disease Control and Prevention, travelers from Sierra Leone (and Liberia) will no longer be funneled through selected airports, and states will no longer receive notification of their arrival. Travelers departing Sierra Leone before December 22, 2015, will continue their current monitoring until completed.

## Partners

This annex was created in consultation with the U.S. Centers for Disease Control and Prevention (CDC).

## Assumptions

The Alaska Section of Epidemiology (SOE) is the lead agency conducting follow-up of persons who may have had exposure to Ebola virus. As appropriate, partner agencies (e.g., CDC) may be asked to assist with monitoring.

## Procedures

Monitoring guidance is based on the CDC-recommended risk categorization and monitoring procedures.[1] All persons with recent travel to the EVD-affected regions are screened multiple times prior to arrival in the U.S. and will be routed through only five ports of entry. We do not expect many travelers to reach Alaska as their final destination, but we will receive names of these travelers from federal authorities and will implement the below protocols to monitor the health of those persons.

*General Principles for Monitoring*

- Persons will be educated about symptoms of EVD (e.g., fever, diarrhea, vomiting, severe headache, muscle pain, abdominal pain, or bleeding) **AND the need to report any symptoms of EVD immediately to SOE via a 24/7 telephone number.**
- SOE will communicate with the exposed person at least once a day either in person or electronically (e.g., phone call, email or text message). The frequency and nature of this active monitoring will be determined on a case-by-case basis, depending on the person's exposure history and EVD risk (see below).
- SOE will provide the person with the Section of Epidemiology's 24/7 phone number to call if symptoms develop in-between the active monitoring calls/visits.
- SOE will develop a plan (with the person and the healthcare facility) as to how and where the person will seek healthcare if symptoms develop.
    - Part of this plan will require the person being monitored to contact SOE immediately if any symptoms arise.
    - If patient care is warranted, SOE will notify the patient care facility (e.g., hospital, emergency department, etc.) prior to patient transport to the facility.
    - The Section of Emergency Programs will facilitate patient transport to the appropriate health care facility, if warranted.
- Plans for monitoring of exposed persons will be developed by SOE (in partnership with the exposed person's employer, if appropriate; see the table on the next page for additional details).
- Public health quarantine orders will be invoked, if necessary, to ensure compliance with monitoring requirements and other quarantine restrictions that SOE deems necessary to protect the public's health.

*Definitions of Monitoring*

- Active: public health workers are responsible for checking at least once a day to see if people in these risk levels have a fever or other symptoms of Ebola. In addition, people being monitored must take their temperature twice daily, watch themselves for symptoms, and immediately tell public health workers if they have a fever or other symptoms. Active monitoring must take place until 21 days after the last possible exposure and can occur on a voluntary basis or be required by public health order by public health departments.
- Direct Active: as above, but in-person visits must occur at least once daily from public health staff to assess health status, plus a second contact in person or by phone, text, or other electronic means of assessing health status.

*Safety for Follow-up Teams Doing Home Visits*

For home visits, it is important for monitoring personnel to take these safety measures before and during a visit:

- Call the person just before entering the residence to ask about symptoms (e.g., fever, diarrhea, vomiting, severe headache, muscle pain, abdominal pain, bleeding).
    - Ask whether they have a dedicated thermometer for taking their temperature; if so, ask them to take their temperature and relay the result.

    - **If during this call, they report fever or other symptoms, tell them to remain in place and telephone SOE (269-8000) to activate the plan for transport to a healthcare facility.**
- If the person does not report symptoms or a fever, re-assess for symptoms in the doorway.
    - If the person does not have their own thermometer, provide them with one and ask them to take their own temperature and show you, or use a no-touch temperature system.
    - Use disposable gloves if you must take the person's temperature directly.
    - Avoid direct physical contact, such as shaking hands or hugging.
- **If fever or other symptoms are identified at the home visit, immediately leave the residence and telephone SOE (269-8000).**
- If no symptoms are identified, verify the time of the next evaluation.
- If any symptoms occur before the next evaluation, instruct the person to immediately go to a private area (e.g., room with a door that can be closed, or car) and contact SOE immediately (269-8000).

# Alaska Interim Guidance for Monitoring of Potentially Exposed Persons (adapted from CDC[1])

| Exposure Risk Category | Type of Risk Exposures During Prior 21 Days | Monitoring Type | Restrictions on Work, School and other Public Activities** | Travel Restrictions** |
|---|---|---|---|---|
| **High** | • Percutaneous (e.g., needle stick) or mucous membrane exposure to blood or body fluids of a person with EVD while the person was symptomatic<br>• Exposure to the blood or body fluids (including but not limited to feces, saliva, sweat, urine, vomit, and semen) of a person with EVD while the person was symptomatic without appropriate personal protective equipment (PPE)[3]<br>• Processing blood or body fluids of a person with EVD while the person was symptomatic without appropriate PPE[3] or standard biosafety precautions<br>• Direct contact with a dead body without appropriate PPE[3] in a country with widespread Ebola virus transmission[2]<br>• Having lived in the immediate household and provided direct care to a person with EVD while the person was symptomatic | Direct Active Monitoring for 21 days | • Exclusion from public places (e.g., shopping centers, movie theaters), and congregate gatherings<br>• Exclusion from workplaces for the duration of the public health order, unless approved by the State (telework is permitted)<br>• Non-congregate public activities while maintaining a 3-foot distance from others may be permitted (e.g., jogging in a park) | • Exclusion from all long-distance and local public conveyances (aircraft, ship, train, bus and subway)<br>• Federal public health travel restrictions[4] (Do Not Board) will be implemented to enforce controlled movement<br>• If travel is allowed, individuals are subject to controlled movement<br>o Travel by noncommercial conveyances only<br>o Coordinated with public health authorities at both origin and destination<br>o Uninterrupted direct active monitoring |
| **Some** | • In countries with widespread Ebola virus transmission[2]: direct contact while using appropriate PPE[3] with a person with EVD while the person was symptomatic or with the person's body fluids<br>• Close contact in households, healthcare facilities, or community settings with a person with EVD while the person was symptomatic. Close contact is defined as being for a prolonged period of time while not wearing appropriate PPE[3] within approximately 3 feet (1 meter) of a person | Direct Active Monitoring for 21 days | Based on specific assessment of the individual's situation, additional restrictions may be appropriate, including:<br>• Exclusion from public places (e.g., shopping centers, movie theaters), and congregate gatherings<br>• Exclusion from workplaces for the duration of a public | Based on specific assessment of the individual's situation, additional restrictions may be appropriate, including:<br>• Exclusion from long-distance commercial conveyances (aircraft, ship, train, bus) or local public conveyances (e.g., bus, subway)<br>• Any travel will be coordinated with public health authorities to ensure uninterrupted direct |

| | | | | |
|---|---|---|---|---|
| | with EVD while the person was symptomatic | | health order, unless approved by the State (telework is permitted)<br>• Non-congregate public activities while maintaining a 3-foot distance from others may be permitted (e.g., jogging in a park)<br>• Other activities should be assessed as needs and circumstances change to determine whether these activities may be undertaken | active monitoring<br>• Federal public health travel restrictions[4] (Do Not Board) may be implemented based on an assessment of the particular circumstance<br>• For travelers arriving in the United States, implementation of federal public health travel restrictions would occur after the traveler reaches the final destination of the itinerary |
| **Low (But Not Zero)** | • Having been in a country[2] with widespread Ebola virus transmission within the past 21 days and having had no known exposures<br>• Having brief direct contact (e.g., shaking hands), while not wearing appropriate PPE,[3] with a person with EVD while the person was in the early stage of disease<br>• Brief proximity, such as being in the same room for a brief period of time, with a person with EVD while the person was symptomatic<br>• In countries[2] *without* widespread Ebola virus, direct contact while using appropriate PPE[3] with a person with EVD while the person was symptomatic<br>• Traveled on an aircraft with a person with EVD while the person was symptomatic | Direct Active Monitoring for:<br>• U.S.-based healthcare workers caring for symptomatic EVD patients while wearing appropriate PPE<br>• Travelers on an aircraft with, and sitting within 3 feet of, a person with EVD<br><br>Active for all others | None | None |
| **No identifiable risk** | • Contact with an asymptomatic person who had contact with person with EVD<br>• Contact with a person with EVD before the | None | None | None |

| | | | | |
|---|---|---|---|---|
| | person developed symptoms<br>• Having been more than 21 days previously in a country[2] with widespread Ebola virus transmission<br>• Having been in a country[2] *without* widespread Ebola virus transmission and not having any other exposures as defined above<br>• Having remained on or in the immediate vicinity of an aircraft or ship during the entire time that the conveyance was present in an affected country[2], and having no direct contact with anyone in the community | | | |

***On a case by case basis, further restrictions may be implemented.*


1. CDC. Interim U.S. Guidance for Monitoring and Movement of Persons with Potential Ebola Virus Exposure. Available at: http://www.cdc.gov/vhf/ebola/exposure/monitoring-and-movement-of-persons-with-exposure.html
2. CDC webpage for areas with Ebola cases, available at: http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/distribution-map.html#areas
3. CDC webpage for PPE: available for http://www.cdc.gov/vhf/ebola/healthcare-us/ppe/guidance.html
4. CDC. Do Not Board procedures: available at: http://www.cdc.gov/quarantine/quarantineisolation.html

# Annex F. Specimen Management and Laboratory Testing

## Purpose

The purpose of this annex is to describe the process for specimen management and laboratory testing relating to Ebola Virus Disease (EVD).

## Situation

Patients with travel and exposure history for EVD must be evaluated by the Section of Epidemiology to determine their exposure risk and whether specimens should be collected and tested. Molecular diagnostic testing for the virus can be performed at the State of Alaska Public Health Laboratory, with confirmation testing at the Center for Disease and Prevention (CDC). Rapid testing for EVD will allow appropriate patient care and public health measures.

## Assumptions

The Section of Epidemiology is the lead for determining if specimens should be tested for EVD.
The State of Alaska Public Health Laboratory (ASPHL) is the lead agency for specimen testing and transport to the Centers for Disease Control and Prevention (CDC; see: http://www.cdc.gov/vhf/ebola/healthcare-us/laboratories/specimens.html).

## Procedures

- All EVD testing must be approved by the Alaska Section of Epidemiology (907-269-8000) prior to specimen submission.
- Testing for EVD is currently available at the ASPHL (located in Anchorage) via a Polymerase Chain Reaction (PCR) test, which only provides a presumptive (positive or negative) result. The test takes approximately 6 hours to complete after specimen receipt.
- Confirmatory testing is required through additional testing at the CDC.
- ASPHL must be called prior to sending in a specimen for EVD testing (907-334-2100).
- If Ebola RNA is not detected and the suspect EVD patient's fever or symptoms have been present for <72 hours, a repeat test may be required to rule out Ebola virus infection (it can take 72 hours after symptom onset for detectable levels of virus to be present in blood).

*Specimen collection, packaging and shipping*

- Contact the Section of Epidemiology before shipping any diagnostic specimens for EVD testing.
- The appropriate clinical specimen for EVD testing is whole blood collected in plastic tubes with EDTA or SPS (i.e., a purple, yellow, or blue topped tube). *Tubes must be labeled with patient's name and date of birth.*
- Fill in the Test Request Form. Fill in the Suspect agent requested for testing in the lower right hand corner for Special Pathogens/Biological/Chemical Terrorism.

- Specimens for EVD should be packaged following the triple packaging system, which consists of a primary receptacle (a sealable specimen bag) wrapped with absorbent material, secondary receptacle (watertight, leak-proof), and an outer shipping package.
- Keep and ship specimens cool using wet ice packs; it is okay to freeze specimens, if necessary.
- ASPHL recommends shipping the specimen as "Category B Diagnostic Specimens".
    - ASPHL can provide Category B shippers upon request from the Supply Request form on the ASPHL website.
- Additional information for EVD specimen collection, packaging, and shipping is available at http://www.cdc.gov/vhf/ebola/healthcare-us/laboratories/specimens.html

*Alternative Testing after EVD is Ruled Out*

- If malaria is in the differential diagnosis for a suspected EVD case, request malaria testing as well on the Test Request Form. Malaria testing will be performed as soon as possible following EVD rule-out.
- If influenza is on the differential diagnosis for a suspected EVD case, please collect a respiratory specimen and submit to the State of Alaska Virology Laboratory in Fairbanks AFTER EVD has been ruled out.

*EVD Testing at Other Facilities*

- The Section of Epidemiology should be immediately notified of any person suspected of having EVD (907-269-8000).
- In the event that a clinical laboratory gains EVD testing capacity in Alaska with an FDA-authorized assay (e.g., the BioFire Defense "FilmArray Biothreat-E test"), any patient suspected of having EVD in Alaska should also be tested for EVD at ASPHL, the National Laboratory Response Network Reference Laboratory for the State of Alaska.
    - Inactivation of specimens for EVD testing should be performed under Biosafety Level 3 conditions.
- The Section of Epidemiology must determine if a patient in Alaska should be tested for EVD prior to specimen shipment to ASPHL.
- At this time, all presumptive-positive PCR tests performed at ASPHL or other facilities must be confirmed by additional testing at CDC.

# Annex G. Medical Waste Management

## Purpose

To describe the regulations, roles and processes for medical waste management of a known or suspected case of Ebola Virus Disease (EVD).

## Situation

Medical waste generated by a known or suspected EVD-infected person is infectious and requires special handling and disposal in accordance with basic local, state, and federal laws.

## Partners

This annex was written in consultation with:

- The Alaska Department of Environmental Conservation (ADEC)

## Assumptions

ADEC is the lead agency for medical waste management questions and concerns.

The Centers for Disease Control and Prevention (CDC) is a support agency for medical waste management questions and concerns (contact the CDC at EOCWSH@cdc.gov )

## Procedures

*Handling of medical waste*

- Waste generated in the care of patients with known or suspected EVD is subject to procedures set forth by local, state, and federal regulations. Basic principles for spills of blood and other potentially infectious materials are outlined in the U.S. Occupational Safety and Health Administration (OSHA) Bloodborne Pathogen standard, 29 CFR 1910.1030 (available at: https://www.osha.gov/SLTC/bloodbornepathogens/index.html).
- Waste contaminated (or suspected to be contaminated) with Ebola virus is a Category A infectious substance regulated as a hazardous material under the U.S. Department of Transportation (DOT) Hazardous Materials Regulations (HMR; 49 C.F.R., Parts 171-180). Requirements in the HMR apply to any material DOT determines is capable of posing an unreasonable risk to health, safety, and property when transported in commerce. For off-site commercial transport of Ebola-associated waste, strict compliance with the HMR is required. For more information on the HMR requirements see http://phmsa.dot.gov/hazmat/transporting-infectious-substances.
- If a person requires a variance to the HMR, that person must apply for a **Special Permit** under 49 CFR § 107.105. DOT may grant a special permit if the applicant can demonstrate that an alternative packaging will achieve a safety level that is: (1) at least equal to the safety level required under the HMR, or (2) consistent with the public interest if a required safety level does not exist. See http://www.phmsa.dot.gov/hazmat/permits-approvals/special-permits. DOT granted multiple

special permits authorizing the transportation in commerce of certain Ebola-associated waste. See http://phmsa.dot.gov/hazmat/packaging-of-ebola-contaminated-waste.

*Inactivation of medical waste*

- The inactivation or incineration of Ebola-associated waste within a hospital system may be subject to state, local and OSHA regulations. Ebola-associated waste may be inactivated through the use of appropriate autoclaves (see: http://www.cdc.gov/vhf/ebola/healthcare-us/cleaning/waste-management.html). Other methods of inactivation (e.g., chemical inactivation) have not been standardized, according to the CDC, and facilities would need to consider worker safety issues, as well as the potential for triggering other Federal safety regulations, in using these methods.
- Ebola-associated waste that has been appropriately incinerated, autoclaved, or chemically inactivated is not infectious, does not pose a health risk, and is not considered to be regulated medical waste or a hazardous material under Federal law. Therefore, such waste is no longer considered a Category A infectious substance and can be transported with normal medical waste.

*Disposal of Medical Waste*

- Ebola-associated medical waste disposal is subject to state and local regulations. See http://www.epa.gov/waste/nonhaz/industrial/medical/programs.htm. Ebola-associated waste that has been appropriately inactivated or incinerated is not infectious and is not considered to be regulated medical waste or a hazardous material under Federal law.
- In Alaska, the following Class I landfills are permitted to accept inactivated EVD-associated medical waste, based on their medical waste disposal policies:
    - Anchorage Regional Landfill, (907) 343-6262
    - Fairbanks North Star Borough Landfill, (907) 459-1482
    - Juneau Capitol Disposal Landfill, (907) 780-7801
    - Palmer Central Landfill, (907) 746-2826
    - Unalaska Landfill, (907) 581-5757

# Annex H. Communications

## Purpose

To describe the scope of communication techniques employed by the Department of Health and Social Services (DHSS) to educate Alaskans about Ebola Virus Disease (EVD).

## Situation

Alaskans need up-to-date information about EVD to understand their risk for infection (in Alaska and elsewhere in the world), how to prevent exposure, and what the State of Alaska is doing to prepare for a potential case of EVD in Alaska. The Department of Health and Social Services public information officers have been in close contact with partner agencies and hospitals to ensure the coordination and release of accurate and consistent information that is disseminated quickly to the media and the public.

## Assumptions

The DHSS Public Information Office is the lead for public-facing communications in print, television, radio, and social media related to EVD.

## Procedures

*Priorities for Communication*

- Produce and disseminate timely, accurate, and helpful public information
- Respond in a timely fashion to public inquiries
- Monitor current events around EVD
- Assist with rumor control
- Assure robust media relations

*Information Release and Coordination*

- Initial Notification. This may occur from a wide variety of sources to DPH. For example: another state agency (DEC, DHS&EM, AST, etc.), a federal agency (CDC, FBI, etc.), any Alaska community, hospital(s), clinics, media, etc.
- Verification. After receiving the initial notification, the recipient should contact the appropriate DPH staff members or other concerned individuals (e.g., a report from a remote community citizen might be verified through a locally assigned PHN) to best determine the validity of the information and what, if any, steps need to be taken to verify the report.
- Evaluation. After verification, the recipient and/or other appropriate staff members should evaluate the information with regard to further notification of the chain of command. Basic guidance is to move the information along if the situation poses a real or potential threat to public health, or if there has been media interest or there is likely to be media interest. It should be noted that occasionally it will be necessary to notify the chain of command even if a report is found to be erroneous. This is done to suppress the rumors and prepare senior management for potential questions from stakeholders.

- Dissemination. If, after the information has been evaluated, it is determined that the information should be disseminated through the chain of command, the appropriate Section Chief will initiate the process.
- Feedback. Throughout this process it is important to provide feedback up, down, and laterally throughout the chain of command.
- Documentation. Everyone involved in this process must make every effort to document all actions, contacts, and observations related to the event.

*Means of Message Dissemination*

- Direct contact with key partners--DPH staff member (e.g., public health nurses, investigative teams, etc.) to state partner agency or individuals in the community (e.g., healthcare providers and hospitals, Fire/EMS, local public health, etc.)
- Mass media – radio, television, newspaper, or direct mail (via broadcast fax and email list serves)
- Press releases, editorials, interviews, etc.
- Social media – DHSS and other agency Facebook and Twitter accounts, blogs, text systems
- Alaska Public Health Alert Network (email list serve)
- Group delivery – small group meetings or public meetings
- Organizational – constituents of influential community organizations
- Community – employers, schools, malls, health groups, public, or local government agencies
- CDC Public Response Service (toll free public hotline)
- DHSS/DPH Web site
- Partner agency public information contacts
- Legislative contacts

*Potential Audiences and Messaging*

- Public in the affected area – personal safety, family safety, pet safety, stigmatization
- Public immediately outside the affected area – personal safety, level of risk, family safety, pet safety, interruption of normal life activities
- First responders – level of risk, personal safety, family safety, pet safety
- Public health and medical professional responders – personal safety, family safety, resources adequate to respond
- Family members of victims and first responders – level of risk, personal safety, safety of victims and response workers
- Health care professionals outside response – level of risk, rehearsal of treatment recommendations, ability to respond to patients with appropriate information, access to treatment supplies
- Tribal Health Corporations / Alaska Native Tribal Health Consortium – informing members, family safety, resources adequate to respond, culturally and linguistically appropriate communications
- Civic leaders (local, state, and national) – leadership, response and recovery resources, quality of response and recovery planning and implementation, expressions of concern, liability, international relations

- Legislature and Congressional Delegation – informing constituents, review of statutes and laws for adequacy and adjustment needs, expressions of concern
- Trade and industry – business issues (protection of employees, loss of revenue, liability, continuity of services)
- National community – readiness efforts
- International neighbors – readiness efforts
- Stakeholders and partners specific to the emergency – included in decision making and access to information
- Media – level of risk, personal safety, family safety, access to information and spokespersons
- Special Populations – appropriate and timely access to information

# Annex I. Community Outreach

## Purpose

The purpose of this annex is to address questions from the local communities about Ebola Virus Disease (EVD) and facilitate exercises and trainings to prepare pre-hospital and healthcare facilities for a suspected case.

## Partners

This annex was developed in consultation with the following partners:

- The Anchorage CDC Quarantine Station

## Assumptions

The Section of Emergency Programs is the lead for EVD-related outreach, training, and exercising among community, pre-hospital, and healthcare partners.

The Section of Epidemiology is a support entity that provides expertise on the epidemiological and clinical aspects of EVD.

The Alaska State Public Health Laboratory is a support entity and provides subject matter expertise on the specimen management and laboratory protocols related to EVD.

The Anchorage CDC Quarantine Station is a support entity and provides subject matter expertise on infectious disease concerns among travelers and migrants at Alaska's ports of entry, and aboard international air and sea conveyances.

## Procedures

Partner agencies should reach out to the Training, Outreach, and Exercise Coordinator, Charles Pelton, in the Section of Emergency Preparedness (Charles.pelton@alaska.gov 907-334-2242) to arrange educational opportunities regarding EVD (e.g., in-person trainings, lectures, Q&As, community-specific guidance, table-top exercises, and grand rounds).

# Annex J. Fatality Management

**Purpose**

The purpose of this annex is to describe the procedures for safe handling and processing of remains for Alaska's healthcare staff and mortuary professionals, and to describe the roles and responsibilities of state, local, and healthcare partners in fatality management for patients with Ebola Virus Disease (EVD).

**Situation**

In patients who die of EVD, Ebola virus can be detected throughout the body. The virus can be transmitted in postmortem care settings by laceration or puncture with contaminated instruments used during postmortem care, through direct handling of human remains without appropriate personal protective equipment (PPE), and through splashes of blood or other body fluids (e.g., blood, urine, saliva, feces, vomit, semen, breast milk) to unprotected mucosa (e.g., eyes, nose, or mouth). The Ebola virus can still infect people who come into contact with a person who has recently died with EVD. Persons at highest risk of exposure to EVD from contact with a decedent in the occupational setting include healthcare staff and mortuary professionals involved in postmortem handling and care. The body of a patient with EVD may have a very high viral load and should be considered highly infectious. In the very unlikely event of a death in Alaska from possible EVD, strict adherence to guidelines is needed to protect healthcare and mortuary staff.

**Assumptions**

- The State Medical Examiners' Office (SMEO) is the lead agency for the medical and legal investigative work related to unanticipated, sudden or violent deaths; this includes determining the cause and manner of death.
- The Section of Epidemiology is a support entity and will provide subject matter expertise on the epidemiological and clinical aspects of EVD.

**Procedures**

- Deaths from suspected or confirmed EVD should be immediately reported to the State Medical Examiner's Office (907-334-2200) and to the Section of Epidemiology (907-269-8000).
- Autopsies on patients who die of EVD should be avoided**.** If an autopsy appears warranted, the state health department and CDC should be consulted first.
- Documented deaths that occur in the hospital or under care of a physician do not fall under the jurisdiction of the SMEO and will not be received by the SMEO for autopsy.
- Deaths that occur outside of medical supervision, such as at home, but are highly suspicious of being caused by EVD, will not be received by the SMEO.
- Moving or handling human remains of a person suspected of dying from EVD should only be performed by personnel wearing appropriate personal protective equipment (PPE) and trained in handling infected human remains.
- Staff should receive PPE training specific to EVD.

*PPE for Postmortem Care Personnel*

- Prior to contact with the body, postmortem care personnel must wear the appropriate PPE according to CDC guidance (see: http://www.cdc.gov/vhf/ebola/healthcare-us/ppe/guidance.html).
- PPE should be in place before contact with the body, worn during the process of collection and placement in body bags, and should be carefully removed after and discarded appropriately (see: Interim Guidance for Environmental Infection Control in Hospitals for Ebola Virus (http://www.cdc.gov/vhf/ebola/healthcare-us/cleaning/hospitals.html).
- Hand hygiene (washing hands thoroughly with soap and water or an alcohol based hand rub) should be performed immediately following the removal of PPE. If hands are visibly soiled, use soap and water.

*Postmortem Preparation*

- At the site of death, the body should be wrapped in a plastic body bag or shroud. Wrapping of the body should be done in a way that prevents contamination of the outside of the body bag/shroud.
- Gowns and gloves should be changed if they become heavily contaminated with blood or body fluids. Intravenous lines or endotracheal tubes should be left in place.
- Avoid washing or cleaning the body. After the body is placed in the first body bag/shroud, the body should be immediately placed in a body bag and zippered closed. (NOTE: BioSeal or another sealed containment system may be used in place of the shroud and/or body bag. If using BioSeal, or other sealed system, the body should still be double sealed, either in two layers of BioSeal, the inner layer as a plastic shroud, or with either layer as a body bag.)
- Prior to transport to the morgue, perform surface decontamination of the corpse-containing body bags by removing visible soil on outer bag surfaces with EPA-registered disinfectants which can kill a wide range of viruses. Follow the product's label instructions.
- After the visible soil has been removed, reapply the disinfectant to the entire bag surface and allow to air dry. Following the removal of the body, the patient room should be cleaned and disinfected. Reusable equipment should be cleaned and disinfected according to standard procedures.
- For more information on environmental infection control, refer to CDC's *Interim Guidance for Environmental Infection Control in Hospitals for Ebola Virus* (available at: http://www.cdc.gov/vhf/ebola/healthcare-us/cleaning/hospitals.html).

*Deaths that Occur Outside the Hospital Environment*

- Deaths that occur outside of the hospital setting should be managed as described above. In cases where there is a strong suspicion of EVD, blood samples will be collected at the scene; however, the body will not be moved to the SMEO, unless there are other factors involved. The body should be sealed as above and moved to a funeral home.
- Blood samples will be transported to the Alaska State Public Health Laboratory (ASPHL) for testing.
- Contact the Section of Epidemiology (907-269-8000) and the ASPHL for testing and shipping instructions.

*Mortuary Care*

- Do not perform embalming. The risks of occupational exposure to Ebola virus while embalming outweighs its advantages; therefore, bodies infected with Ebola virus should not be embalmed.
- Do not open the body bags.
- Do not remove remains from the body bags. Bagged bodies should be placed directly into a hermetically sealed casket.
- Mortuary care personnel should wear the appropriate PPE as described in the CDC guidance denoted above when handling the bagged remains.
- In the event of leakage of fluids from the body bag, thoroughly clean and decontaminate areas of the environment with EPA-registered disinfectants, which can kill a broad range of viruses in accordance with label instructions.
- Reusable equipment should be cleaned and disinfected according to standard procedures.
- For more information on environmental infection control, refer to *CDC's Interim Guidance for Environmental Infection Control in Hospitals for Ebola Virus* (available at: http://www.cdc.gov/vhf/ebola/healthcare-us/cleaning/hospitals.html).

*Disposition of Remains*

- Remains should be cremated or buried promptly in a hermetically sealed casket.
- Once the bagged body is placed in the sealed casket, no additional cleaning is needed unless leakage has occurred.
- No PPE is needed when handling the cremated remains or the hermetically sealed closed casket.
- In communities in which there is no available burial in winter, bodies should be stored as above, in double-Bioseal or other body bags, then in a hermetically sealed casket until burial can be performed.

*Transportation of human remains*

- Transportation of remains that contain Ebola virus should be minimized to the extent possible.
- All transportation, including local transport, for example, for mortuary care or burial, should be coordinated with relevant local and state authorities in advance.
- All transportation via air within the state should be coordinated with relevant local and state authorities in advance.
- Interstate transport should be coordinated with CDC by calling the Emergency Operations Center at 770-488-7100. The mode of transportation (i.e., airline or ground transport), must be considered carefully, taking into account distance and the most expeditious route.
- Although Ebola virus is a Category A infectious substance regulated by the U.S. Department of Transportation's Hazardous Materials Regulations (HMR, 49 Code of Federal Regulations Parts 171-180), DOT has issued guidance that human remains contaminated with a category A infectious substance are excepted from the HMR (available at: http://phmsa.dot.gov/portal/site/PHMSA/menuitem.6f23687cf7b00b0f22e4c6962d9c8789/?vgnextoid=4d1800e36b978410VgnVCM100000d2c97898RCRD&vgnextchannel=d248724dd7d6c010VgnVCM10000080e8a8c0RCRD&vgnext).

- Transportation of remains that contain Ebola virus outside the United States would need to comply with the regulations of the country of destination, and should be coordinated in advance with relevant authorities.

*Individuals driving or riding in a vehicle carrying human remains*

- PPE is not required for individuals driving or riding in a vehicle carrying human remains, provided that drivers or riders will not be handling the remains of a suspected or confirmed case of EVD, and the remains are safely contained and the body bag is disinfected as described above.

**References**


- CDC. Guidance for Safe Handling of Human Remains of Ebola Patients in U. S. Hospitals and Mortuaries. (Available at: http://www.cdc.gov/vhf/ebola/healthcare-us/hospitals/handling-human-remains.html, updated December 17, 2014).
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