



**New Hampshire Department of Health and Human Services
Division of Public Health Services
January 9, 2015**

Frequently Asked Questions on Ebola Virus Disease (EVD)

Ebola Background

What is Ebola?

Ebola is a virus that causes a serious and potentially life-threatening infection. The symptoms usually begin with fever, headache, joint pain, muscle aches, weakness, diarrhea, vomiting, and stomach pain and can progress to become more severe and include internal and external bleeding in a small percentage of patients.

How is Ebola passed from person to person?

Ebola is transmitted through direct contact with the bodily fluids (such as blood, saliva, vomit, diarrhea, urine, or sweat) of a person who is infected with Ebola virus disease (EVD) and is having symptoms.

Can Ebola be transmitted through the air?

No. Ebola is not a disease that is transmitted through the air like tuberculosis (termed “airborne transmission”).

How do the experts know that Ebola isn’t airborne?

Studies of past outbreaks, including studies of transmission within families and households, have shown that Ebola is transmitted through direct contact with a person who is infected and showing symptoms of infection. Even with direct contact with a person who is symptomatic with EVD, many do not become infected or sick. There has been no clinical evidence of Ebola being transmitted through the air.

Could Ebola become an airborne virus?

There is no evidence that Ebola will mutate to become an airborne virus like tuberculosis or measles. In over 30 years of studying the virus in outbreak settings, there has been no evidence that the virus mutates to be able to spread through the air.

How long does it take to become ill once you are infected?

Once exposed to the virus, it can take between 2 and 21 days to become ill, though most people become ill within 8–10 days.

Can I get Ebola from contaminated food or water?

No, Ebola is not transmitted through eating or drinking contaminated food or water.

Where does Ebola come from?

Ebola was first identified in Africa in 1976 and there have been small sporadic outbreaks in African countries since. Fruit bats are considered the most likely natural source of the virus. The virus probably circulates in bats, and occasionally monkeys or other animals get infected. After contact with an infected animal, humans can then become infected and spread the virus from person to person.

Am I at risk of getting Ebola?

Ebola is not easy to catch. You can only get it by coming into direct contact with the bodily fluids of someone who has the disease and is showing symptoms, and the infected fluids also need to somehow get past the skin barrier and be touched to areas of broken skin (i.e., cuts) or the mucous membranes (eyes, nose, mouth) in order for a person to get infected. Even with direct contact to someone who is ill with EVD, you are not assured of developing infection; this is especially true in the early stages of illness when a person is less infectious. Therefore, if you have not traveled to one of the West African countries currently affected by the Ebola outbreak nor come into direct contact with someone who is sick with Ebola, you cannot get Ebola infection.

Is there a vaccine to prevent EVD?

There are currently no Food and Drug Administration (FDA)-approved vaccines for Ebola. There are a number of vaccines in development, two of which are currently undergoing safety trials in a small number of people. At the end of November 2014, the preliminary results of one of these safety trials for a vaccine produced by the National Institute of Health (NIH) and GlaxoSmithKline (GSK) was published. This study showed that in the small number of people given the vaccine there were no major adverse vaccine reactions, and there was a dose-dependent immune response to the vaccine. Further trials are currently underway or planned to test the vaccines.

Is there a treatment for EVD?

The treatment for Ebola consists of supportive care, such as managing a patient's electrolytes, and maintaining fluid levels and hydration. There is no known cure, but scientists are working to develop a treatment. A number of different experimental treatments have been tried in patients who developed EVD but it is still unclear what impact these treatments have had.

Current Ebola Outbreak

What countries are presently experiencing Ebola cases?

The current outbreak of Ebola began in December 2013, but was first identified in March 2014 in Guinea. Infection subsequently spread to Liberia, Sierra Leone, Nigeria, Senegal, Mali, Spain, the United Kingdom, and the United States. Nigeria, Senegal, Spain, and the United States have successfully stopped transmission of infection and their local outbreaks have been officially declared over. Mali has also successfully controlled their outbreak and is expected to be taken off the outbreak list in the next 1-2 weeks. The United States has not had any cases of localized transmission since a New York doctor was diagnosed after traveling from Guinea, and he was discharged Ebola free November 11, 2014. The outbreak, however,

continues in Guinea, Liberia, Sierra Leone. More up-to-date information can be found on the CDC website at: <http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/case-counts.html>

Is it safe to travel to West Africa?

The Centers for Disease Control and Prevention (CDC) has issued a level 3 travel alert for Liberia, Sierra Leone, and Guinea, and U.S. citizens should avoid unnecessary travel to these countries. A level 2 travel alert was issued for Mali indicating that any travelers to this country should have increased awareness of the possible spread of Ebola, but it was lifted January 6th.

Is everyone traveling from West Africa at risk for Ebola?

Only people who have been to one of the West African countries currently experiencing ongoing/active Ebola transmission are considered at increased risk of developing EVD. Even then, travelers who were not around people known to have EVD are considered to have a very low risk of developing EVD themselves. Any travelers from one of these affected countries, however, should be assessed by the NH Department of Health and Human Services (DHHS) to determine their risk of developing EVD and will need to be monitored for symptoms of Ebola for 21 days starting when they left the country.

How are travelers coming to the United States being screened for the possibility of EVD or the risk of developing EVD?

A person traveling from one of the affected West African countries is screened at the airport in the departure country multiple times before boarding a plane. When arriving in the U.S., their flight is routed through one of five airports, and they are screened again. If the travelers are not exhibiting any symptoms and do not have any high-risk exposures, they are allowed to continue on to their destination state. All travelers will then be monitored by the state or local health department in order to monitor for development of signs or symptoms of possible early Ebola infection for 21 days from when they left the Ebola-affected country.

Do employees or students need to be excluded from work or school if someone in their household or a close contact recently returned from a country affected by the Ebola outbreak within the last 21 days?

No. In this situation, an employee or student can continue to work or attend school and go about their daily activities. There is no risk for them developing EVD unless they come into direct contact with someone who is sick with Ebola.

What should employers or schools do if an employee or student recently traveled internationally?

Employees or students who have recently returned (in the past 21 days) from one of the West African countries affected by the Ebola outbreak should be assessed by the NH Department of Health and Human Services (603-271-4496) to determine the potential risk of developing EVD. The public health division will make a determination on what (if any) restrictions need to be placed on the employee or student.

What is isolation and when would public health officials isolate someone suspected of having EVD?

Isolation (isolating a person from contact with other people) is done when a person has symptoms of a disease and could potentially spread this disease to others. It is most often done in a health care setting since the person is ill. Any person suspected of having EVD who is showing symptoms will be immediately isolated and tested for infection.

What is quarantine and when would someone be quarantined who was at risk of developing EVD?

Quarantine (quarantining a person away from contact with other people) is done when a susceptible person has been exposed to a disease, but is not ill. This is typically done at the person's home, and continues for the incubation period of the infectious organism after the last time the person was exposed to the disease (21 days in the case of Ebola virus). New Hampshire's quarantine policy for EVD depends on an individual's risk factors for exposure to Ebola. New Hampshire's Isolation and Quarantine policy can be found online at:

<http://www.dhhs.state.nh.us/dphs/cdcs/ebola/index.htm>.

How are people tested to see if they have Ebola?

A blood sample is taken from a suspect Ebola patient and then tested for the presence of the virus.

What labs can perform diagnostic testing for Ebola?

The Centers for Disease Control and Prevention and multiple state public health department labs can test for Ebola, including the Public Health Laboratories in New Hampshire. Should it become necessary to test anyone in New Hampshire for Ebola, the collection and shipment of specimens will be coordinated through the NH Department of Health and Human Services (DHHS), Bureau of Infectious Disease Control by calling 603-271-4496.

How long does Ebola live in the environment?

The Ebola virus is very susceptible to drying and environmental degradation. In situations where there is large contamination of body fluids in the environment, such as vomit or diarrhea on a floor, the virus may be able to survive up to several days in favorable conditions. In hospital settings, however, where there is routine cleaning and in more typical environmental settings without large contamination, the virus is expected to survive for less than 24 hours.

Can pets get infected or sick with Ebola?

At this time, there have been no reports of pets, such as dogs or cats, becoming sick with Ebola or of being able to spread Ebola to people or other animals. Even in areas in Africa where Ebola is present, there have been no reports of pets becoming sick with Ebola. There is limited evidence that dogs can be infected with Ebola virus and develop antibodies against the virus, but there is no evidence that they develop disease or are able to transmit Ebola.

Can I get Ebola from my pet?

The risk of an Ebola outbreak affecting many people in the United States is very low. Therefore, the risk to pets is also very low, as they would have to come into contact with

blood and body fluids of a person with Ebola. At this time, there have also been no reports of any pet becoming sick with Ebola or of being able to spread Ebola to people or animals.

Can my pet's body, fur, or paws spread Ebola to a person?

We do not yet know whether or not a pet's body, paws, or fur can pick up and spread Ebola to people or other animals. It is important to keep people and animals away from the blood or body fluids of a person with symptoms of Ebola infection.

What if there is a pet in the home of an Ebola patient?

CDC recommends that public health officials in collaboration with a veterinarian evaluate the pet's risk of exposure to the virus (close contact or exposure to blood or body fluids of an Ebola patient). Based on this evaluation as well as the specific situation, local and state human and animal health officials will determine how the pet should be handled.

Can I get my pet tested for Ebola?

There would not be any reason to test a pet, including dogs or cats, for Ebola if there was no exposure to a person infected with Ebola. Currently, routine testing for Ebola is not available for pets.

Ebola in the United States

Are there cases of Ebola in the United States?

As of the beginning of January 2015, there are no cases of Ebola currently in the United States. There have been four patients diagnosed with Ebola in the U.S. and several others brought back from West Africa for treatment in U.S. hospitals after already being diagnosed. It is possible that other Ebola cases will be identified in the United States in the coming months.

Why do experts think the U.S. will not have an Ebola outbreak like West Africa is experiencing?

Patient care in the affected West African countries is very different than healthcare in the United States. The U.S. has a much more developed healthcare infrastructure and ability to control infections and prevent transmission. Healthcare infrastructure is lacking in the West African countries affected by the Ebola epidemic, and many patients are being treated with limited resources, including infection control equipment.

Are hospitals in New Hampshire prepared to handle Ebola patients?

Hospitals in New Hampshire are all prepared to identify a suspect Ebola patient, isolate the person, and inform the DHHS Division of Public Health Services. The Division of Public Health Services has worked with all hospitals to ensure that measures are in place to safely provide initial care for any suspect EVD patient and test for Ebola virus. The Division of Public Health Services has also been working closely with the CDC, which would provide additional support in the event an EVD patient presents in New Hampshire.

Why have patients with EVD that were brought back from West Africa treated in such specialized isolation units in the United States?

There are currently four specialized biocontainment units in the United States that were designed to deal with highly contagious infectious diseases. Although some were used to treat American Ebola patients returning from West Africa they are not necessary. Additional hospitals across the country are working to be prepared to treat Ebola patients who may present in the U.S. and are being evaluated by the CDC to ensure they are ready to handle Ebola patients. The highly specialized biocontainment facilities have been designated to treat patients brought back to the U.S. from West Africa who already have a diagnosis of EVD.

Can authorities in the U.S. safely decontaminate Ebola patients' environments and deal with the waste in both the hospital and community?

DHHS has been working with hospitals to make sure they have procedures in place to deal with medical waste. A company is available that can remove and dispose of the infectious waste generated by an EVD patient. A contractor has also been identified that is able to decontaminate a person's home environment, if necessary, if they were ultimately diagnosed with EVD.

Ebola and New Hampshire

What is the State of New Hampshire doing to prepare for an outbreak such as Ebola?

The New Hampshire DHHS is diligently following the developments of this outbreak around the world and in the U.S. We are in close communication with leading health experts at the CDC who are providing us with the latest information about this outbreak. We are also working with our clinicians and healthcare centers here in New Hampshire to make sure they have the latest information about this outbreak. We have provided training for healthcare providers and healthcare facilities to assist them in their preparedness efforts. We have also been working closely with our Emergency Medical Services (EMS) providers and other local partners to ensure preparedness.

What are hospitals in New Hampshire doing to prepare for Ebola?

Every hospital is reviewing their epidemic response plans and working through the Centers for Disease Control and Prevention (CDC) hospital preparedness checklist. All hospitals are training their providers to ensure they can identify a patient suspected to have EVD, isolate them, and inform the public health division. Hospitals have also been working to ensure they have the necessary training, equipment, and facilities needed to isolate a patient and test for Ebola. Hospitals have also run drills to ensure they are ready in case an Ebola patient does arrive in the State.

What are first responders and emergency medical service (EMS) personnel doing to prepare in case there is an Ebola patient in New Hampshire?

DHHS is coordinating with all its partners who could have a role to play in the response to Ebola, including police, fire, and EMS. Some of the steps being taken are inventorying supplies of personal protective equipment, conference calls to share information and answer

questions, training on using equipment appropriately, and the creation of guidelines around Ebola safety precautions and patient care.

If there is a case of Ebola identified in New Hampshire, what will be the CDC's role?

DHHS is working with the Centers for Disease Control and Prevention to make sure the State of New Hampshire is prepared. In the event of an EVD patient being identified in New Hampshire, there is a CDC Ebola Response Team (CERT) that can travel to any state to provide technical assistance. This team would include infection control, lab science, epidemiology, and personal protective equipment experts. The CDC would also make sure that the state has the necessary supplies and resources to care for an EVD patient.

Are all hospitals going to be taking Ebola patients or will certain ones be designated for patient care?

There has been discussion ongoing around the country of identifying certain hospitals that may be able to manage an Ebola patient for the duration of their illness. The CDC has a list of hospitals in the U.S. that have gone through a CDC assessment and been officially identified as U.S. "Ebola Treatment Centers." In New Hampshire, Dartmouth-Hitchcock Medical Center (DHMC) in Lebanon has agreed to act as a referral center for Ebola patients identified in the State, but DHMC has not been designated as an Ebola Treatment Center. DHMC and DHHS are working on further CDC evaluation and assistance. It is unclear if New Hampshire will have an officially designated Ebola Treatment Center. There are several hospitals in New Hampshire, however, which have worked through the multiple logistical issues of caring for an EVD patient and are prepared to manage a suspect or confirmed EVD patient for at least several days.

For More Information about Ebola

- ✓ New Hampshire Department of Health and Human Service: www.dhhs.nh.gov
- ✓ The Centers for Disease Control and Prevention: www.cdc.gov
- ✓ World Health Organization (WHO): www.who.org

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