



# Technical Bulletin

## Division of Public and Behavioral Health



**Date: October 1, 2014**

**Topic: Ebola Case in the United States**

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**To: All Providers and Medical Facilities**

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### **Current Situation:**

The Centers for Disease Control and Prevention (CDC) confirmed the first case of Ebola to be diagnosed in the United States is in a person who had traveled to Dallas, Texas from Liberia. Even a single case of Ebola diagnosed in the U.S. raises concerns; therefore, Nevada public health officials at the state and local levels have been preparing to respond. The preparations include enhancing surveillance and laboratory testing capacity to detect cases and disseminating up-to-date information to healthcare providers, the general public, international travelers, and other partners.

This patient did not have symptoms when leaving West Africa, but developed symptoms after arriving in the U.S. on September 20<sup>th</sup>. The person fell ill a few days after arrival and sought medical care at Texas Health Presbyterian Hospital of Dallas on September 26<sup>th</sup>. After developing symptoms consistent with Ebola, he was admitted to hospital on the 28<sup>th</sup>. Based on the person's travel history and symptoms, CDC recommended testing for Ebola. The medical facility isolated the patient and sent specimens for testing.

The ill person did not exhibit symptoms of Ebola during the flights from West Africa and CDC does not recommend that people on the same commercial airline flights undergo monitoring, as Ebola is contagious only if the person is experiencing active symptoms. However, while symptomatic and before he was isolated, the patient had some contacts and could have exposed other individuals. Contacts including crew members who transported him to the hospital were identified and placed under isolation/quarantine and are carefully observed and evaluated. Currently there is one additional suspect case, a contact of the previously mentioned case in Dallas. There are at least 12 contacts currently being monitored, 5 of which are children.

Questions regarding whether the screening protocol was applied appropriately are being investigated. Specifically, questions regarding the first case's response to questions about his travel history are being evaluated. **There have now been several instances of arrivals from the Ebola-affected countries who have failed to disclose their travel history to their healthcare provider. This has resulted in infection and fatalities among healthcare providers and other contacts of these patients, as well as a preventable, highly disruptive outbreak for the involved community. A high index of suspicion is recommended for anyone who has traveled from Guinea, Sierra Leone, or Liberia. If you have reason to believe your patient has traveled to an affected country, and the patient is symptomatic, please contact your local health authority immediately.**

Incubation period for EVD ranges from two to 21 days with an average of eight to 10 days, and clinical manifestations could start abruptly with nonspecific initial clinical manifestation that may include fever (more than 101.5°F), malaise followed by anorexia, severe headache, myalgia, arthralgia, sore throat, chest pain, conjunctivitis, lumbosacral pain, maculopapular rash, vomiting, diarrhea, epigastric pain, and unexplained hemorrhage. Early-stages of EVD could be confused with other infectious diseases such as typhoid fever and septicemia.

There are no FDA-licensed vaccines or specific antiviral drugs available to prevent or treat EVD. However, evidence from the current and previous epidemics indicates that transmission can be interrupted through the proper implementation of infection-control measures.

Although the Ebola virus is a very dangerous biological agent and a contact with Ebola patients may carry great risks, the virus does not usually spread rapidly through large populations. Ebola patients become infectious once they become symptomatic and may remain infectious even after the symptoms subside as the virus may persist in some body fluids.

Ebola virus is spread through contact with blood or body fluids and the virus can gain access to another host's body through broken skin or via unprotected mucous membranes through the eyes, nose, or mouth. It can spread also through contact with sharp instruments including needles, syringes, and other contaminated objects. Laboratory testing of blood samples should be performed at the highest biosafety level (BSL-4). CDC provided interim guidance for laboratory technicians and other healthcare personnel who handle specimens on the appropriate steps for collecting, transporting, and testing specimens from patients who are suspected to be infected with Ebola. The guidance is available on the CDC website at <http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-specimen-collection-submission-patients-suspected-infection-ebola.html>. Ebola virus is detected in blood only after the onset of symptoms, especially fever and it may take up to three days post-onset of symptoms for the virus to reach detectable levels.

Healthcare providers must contact their local health authority and/or the Nevada Division of Public and Behavioral Health (DPBH) to determine the proper category for shipment based on clinical history and risk assessment. For an updated guidance on specimen submission please see CDC website at <http://www.cdc.gov/ncezid/dhcpp/vspb/specimens.html>.

This EVD epidemic is the largest in history causing more morbidity and mortality than any previous EVD outbreaks and, the World Health Organization (WHO) declared the Ebola Epidemic in West Africa to be a Public Health Emergency of International Concern (PHEIC). Concern continues to be due to the ongoing and exponentially increasing transmission of infection among African communities and healthcare facilities; a rather high Case-fatality Rate (50%) and a fragile public health/healthcare system. For specific areas with highest frequency of Ebola infections and cases please refer to the CDC's Ebola Epidemic webpage <http://www.cdc.gov/vhf/ebola/outbreaks/guinea/index.html>.

Healthcare providers caring for Ebola patients and family/friends in close contact with Ebola patients are at the highest risk of being exposed to the infection as they may inadvertently come in contact with blood or body fluids of patients. Nevada healthcare workers should follow CDC's "Infection Prevention and Control Recommendations for Hospitalized Patients with Known or Suspected Ebola Hemorrhagic Fever in U.S. Hospitals" at [www.cdc.gov/vhf/ebola/hcp/infection-prevention-and-control-recommendations.html](http://www.cdc.gov/vhf/ebola/hcp/infection-prevention-and-control-recommendations.html). CDC recommends standard, contact, and droplet precautions for management of hospitalized patients with known or suspected Ebola. These precautions can be found in the "2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Setting" at [http://www.cdc.gov/hicpac/2007IP/2007ip\\_part3.html](http://www.cdc.gov/hicpac/2007IP/2007ip_part3.html). A CDC Health Alert Network (HAN) notice providing guidance to U.S. healthcare workers and hospitals regarding Ebola virus disease was distributed by CDC and redistributed by the DPBH on August 1, 2014 and is found at <http://emergency.cdc.gov/han/han00363.asp>. CDC has posted an Expert Commentary for healthcare providers whose patients are travelers with concerns about Ebola. The commentary includes information about the Ebola outbreak in West Africa, the transmission Ebola virus, and how to talk to travelers about their risk. The video is available on the CDC website at <http://wwwnc.cdc.gov/travel/page/clinician-updates>. Although the Ebola epidemic continues to affect several countries in Africa and a case was already diagnosed in Texas, the EVD does not seem to pose a substantial risk to the general population in Nevada and the US. CDC and DPBH have received several calls from many concerned healthcare providers and hospitals about suspected cases and persons under investigation. Calls have been triaged appropriately and some Nevada samples have been sent to CDC laboratories for testing. So far all samples received have been negative for Ebola.

Effective interventions to control the spread of the Ebola can be accomplished through a strict adherence to the core functions of public health, coordinated field responses; ongoing surveillance for early case identification, rapid and prompt case isolation, timely and appropriate care; contact tracing and the enhancement of public health preparedness plans.

#### Resources:

- Nevada Healthcare Facility Ebola Flyer (can be posted at your office):
  - Step 1: Log into the state's HAVBED website at <https://www4.emsystem.com/login.jsp>
  - Step 2: From the system's Main Page, look along that Toolbar along the TOP and click on "Regional Info"
  - Step 3: When that opens, click on the "Document Library" option
  - Step 4: Scroll about 3/4 of the way down and look for a folder called "Nevada Reportable Diseases" and click on the box with the plus-sign to the LEFT of the folder's title.

Please see the contact information below for the state and local health jurisdictions in Nevada. The local or state health agency needs to be consulted prior to deciding whether to collect specimens for testing.

- Las Vegas area: Southern Nevada Health District, 702.759.1300
- Reno/Sparks area: Washoe County Health District, 775.328.2447
- Carson City, Douglas, and Lyon Counties: Carson City Health and Human Services, 775.887.2190
- Other counties: Rural Community Health Services, 775.687.5162 (business hours) or 775.434.4358 (after hours)
- State of Nevada Epidemiology Duty Officer (24 hours): 775.400.0333



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