Evaluating Patients for Possible Ebola Virus Disease: Recommendations for Healthcare Personnel and Health Officials

Summary: The first case of Ebola Virus Disease (Ebola) diagnosed in the United States was reported to CDC by Dallas County Health and Human Services on September 28, 2014, and laboratory-confirmed by CDC and the Texas Laboratory Response Network (LRN) laboratory on September 30. The patient departed Monrovia, Liberia, on September 19, and arrived in Dallas, Texas, on September 20. The patient was asymptomatic during travel and upon his arrival in the United States; he fell ill on September 24 and sought medical care at Texas Health Presbyterian Hospital of Dallas on September 26. He was treated and released. On September 28, he returned to the same hospital, and was admitted for treatment.

The purpose of this HAN Advisory is to remind healthcare personnel and health officials to:

(1) increase your vigilance in inquiring about a history of travel to West Africa in the 21 days before illness onset for any patient presenting with fever or other symptoms consistent with Ebola;
(2) isolate patients who report a travel history to an Ebola-affected country (currently Liberia, Sierra Leone, and Guinea) and who are exhibiting Ebola symptoms in a private room with a private bathroom and implement standard, contact, and droplet precautions (gowns, facemask, eye protection, and gloves); and
(3) immediately notify the Marin Public Health at 415-473-4163. After hours, follow instructions to have the on-call MD paged.

Background
The first known case of Ebola with illness onset and laboratory confirmation in the United States occurred in Dallas, Texas, on September 2014, in a traveler from Liberia. The West African countries of Liberia, Sierra Leone, and Guinea are experiencing the largest Ebola epidemic in history. From March 24, 2014, through September 23, 2014, there have been 6,574 total cases (3,626 were
laboratory-confirmed) and 3,091 total deaths reported in Africa. Ebola is a rare and deadly disease caused by infection with one of four viruses (Ebolavirus genus) that cause disease in humans. Ebola infection is associated with fever of greater than 38.6°C or 101.5°F, and additional symptoms such as severe headache, muscle pain, vomiting, diarrhea, abdominal pain, or unexplained hemorrhage. Ebola is spread through direct contact (through broken skin or mucous membranes) with blood or body fluids (including but not limited to urine, saliva, feces, vomit, sweat, breast milk, and semen) of a person who is sick with Ebola or contact with objects (such as needles and syringes) that have been contaminated with these fluids. Ebola is not spread through the air or water. The main source for spread is human-to-human transmission. Avoiding contact with infected persons (as well as potentially infected corpses) and their blood and body fluids is of paramount importance. Persons are not contagious before they are symptomatic. The incubation period (the time from exposure until onset of symptoms) is typically 8-10 days, but can range from 2-21 days. Additional information is available at [http://www.cdc.gov/vhf/ebola/index.html](http://www.cdc.gov/vhf/ebola/index.html).

**Recommendations**

Early recognition is critical to controlling the spread of Ebola virus. Consequently, healthcare personnel should elicit the patient’s travel history and consider the possibility of Ebola in patients who present with fever, myalgia, severe headache, abdominal pain, vomiting, diarrhea, or unexplained bleeding or bruising. Should the patient report a history of recent travel to one of the affected West African countries (Liberia, Sierra Leone, and Guinea) and exhibit such symptoms, immediate action should be taken. The Ebola algorithm for the evaluation of a returned traveler and the checklist for evaluation of a patient being evaluated for Ebola are available at [http://www.cdc.gov/vhf/ebola/pdf/ebola-algorithm.pdf](http://www.cdc.gov/vhf/ebola/pdf/ebola-algorithm.pdf) and [http://www.cdc.gov/vhf/ebola/pdf/checklist-patients-evaluated-us-evd.pdf](http://www.cdc.gov/vhf/ebola/pdf/checklist-patients-evaluated-us-evd.pdf).

Patients in whom a diagnosis of Ebola is being considered should be isolated in a single room (with a private bathroom), and healthcare personnel should follow standard, contact, and droplet precautions, including the use of appropriate personal protective equipment (PPE). Infection control personnel and the local health department should be immediately contacted for consultation.

The following guidance documents provide additional information about clinical presentation and clinical course of Ebola virus disease, infection control, and patient management:


The case definitions for persons under investigation (PUI) for Ebola, probable cases, and confirmed cases as well as classification of exposure risk levels are at http://www.cdc.gov/vhf/ebola/hcp/case-definition.html.

Persons at highest risk of developing infection are:
- those who have had direct contact with the blood and body fluids of an individual diagnosed with Ebola – this includes any person who provided care for an Ebola patient, such as a healthcare provider or family member not adhering to recommended infection control precautions (i.e., not wearing recommended PPE)
- those who have had close physical contact with an individual diagnosed with Ebola
- those who lived with or visited the Ebola-diagnosed patient while he or she was ill.

Persons who have been exposed, but who are asymptomatic, should be instructed to monitor their health for the development of fever or symptoms for 21 days after the last exposure. Guidelines for monitoring and movement of persons who have been exposed to Ebola are available at http://www.cdc.gov/vhf/ebola/hcp/monitoring-and-movement-of-persons-with-exposure.html.

Diagnostic tests are available for detection of Ebola at LRN laboratories as well as CDC. Consultation with CDC is required before shipping specimens to CDC. Information about diagnostic testing for Ebola can be found at http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-specimen-collection-submission-patients-suspected-infection-ebola.html.

Healthcare personnel should immediately contact Marin Public Health at 415-473-4163 regarding any person being evaluated for Ebola if the medical evaluation suggests that diagnostic testing may be indicated. If there is a high index of suspicion, Marin Public Health will immediately report any probable cases or persons under investigation (PUI) (http://www.cdc.gov/vhf/ebola/hcp/case-definition.html) to CDC’s Emergency Operations Center.