COMMONWEALTH of VIRGINIA

Department of Health

MARISSA J. LEVINE, MD, MPH, FAAFP
STATE HEALTH COMMISSIONER

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Emerging Infections Update: Ebola Virus Disease

August 4, 2014

Dear Colleague:

Given the questions raised as a result of the Ebola virus disease (EVD) outbreak in West Africa, I am again writing to you to assure that you have the information you need to answer your patient's questions and manage any potentially exposed individuals. I am confident that our ongoing coordination and collaboration have created an effective public health and clinical partnership that can manage any issue raised by these emerging infectious diseases. For that, you have my sincere appreciation.

This communication will provide important background information, review the symptoms and transmissibility of EVD and list important steps in the management of individuals potentially exposed to EVD. My key take-home message is to contact us at your earliest concern so that we can all work effectively to assure that the necessary actions are completed and coordinated in a timely manner. Your best contact is through our local health districts (http://www.vdh.virginia.gov/LHD/) or, if after hours, via our answering service at **866-531-3068.**

Background

The World Health Organization reports that 1,322 cases of Ebola virus disease, including 729 deaths, have occurred in outbreaks in Guinea, Liberia, and Sierra Leone. There is also one probable case in Nigeria. New cases continue to be reported, with 122 new cases and 57 deaths reported between July 24th and July 27th. While this is the largest EVD outbreak in history, sporadic cases and outbreaks have occurred in Africa in the past. No case of human illness has been reported in the United States.

Disease Symptoms

Ebola virus disease is a viral hemorrhagic fever. Early symptoms include sudden fever, headache, chills, and myalgias. Later a skin rash, nausea, vomiting, diarrhea and other symptoms can occur. Hemorrhagic signs occur in less than half of infected patients of cases. The disease can become increasingly severe, progressing to shock, multi-organ failure, and death.

Transmission

Transmission of EVD is through direct contact with blood or body fluids (including but not limited to vomitus, urine, and stool) of an infected person or exposure to contaminated items, such as needles. Ebola virus is not readily transmitted through the air from person to person. Communicability begins with the onset of symptoms. Persons are not infectious during the incubation period. The disease is most transmissible during the later stages of illness, when viral loads are highest.

Management

Travelers who are exposed through contact with ill persons in West Africa potentially could become ill with EVD in the United States. The only treatment is supportive care. Please take the following steps for early identification and response to ill individuals:

- **When evaluating someone with a febrile illness (fever greater than 101.5°)** and additional symptoms such as severe headache, myalgia, vomiting, diarrhea, abdominal pain, or unexplained hemorrhage, **ask about recent travel to West Africa**.
    - If the patient has a **recent (within 21 days) history of travel to an affected area**, consider EVD in your diagnosis.
    - Risk factors for EVD exposure in the 3 weeks before the onset of symptoms, include contact with blood or other body fluids of a patient known to have or suspected to have EVD or residence in—or travel to—an area where EVD transmission is active.
    - **The areas with active transmission are in Guinea, Liberia, and Sierra Leone.** However, the situation is rapidly unfolding and additional affected areas may be added (see http://www.cdc.gov/vhf/ebola/).
    - Malaria diagnostics should also be a part of initial testing of a patient.
    - For more information, see the **CDC Health Advisory, Guidelines for Evaluation of US Patients Suspected of Having Ebola Virus Disease**, at http://emergency.cdc.gov/han/han00364.asp

- If you suspect EVD based on clinical presentation and travel history, **place the patient in isolation and use standard, contact, and droplet precautions.**
    - Facilities may elect to implement airborne precautions as well, especially for patients who have severe pulmonary involvement or who undergo procedures that stimulate coughing and promote the generation of aerosols.
    - **CDC has guidance on "Infection Prevention and Control Recommendations for Hospitalized Patients with Known or Suspected Ebola Hemorrhagic Fever in U.S. Hospitals"** at http://www.cdc.gov/vhf/ebola/hcp/infection-prevention-and-control-recommendations.html.

- **Contact VDH prior to specimen collection to ensure that proper procedures are followed. VDH will help arrange for laboratory testing, which is available only through CDC.**

- Upon contact, VDH will assess exposures that might be associated with illness, identify close contacts of ill persons and place them under illness surveillance for 21 days, as well as provide instructions on limitations of activity or other measures to protect health and prevent disease transmission.

If necessary, state laws and regulations provide broad and detailed authority for the State Health Commissioner to take actions to protect the health of the residents of Virginia. I and my staff are prepared to do what is necessary to contain the virus should it arrive in our state. If good news can be found in the midst of this serious outbreak in West Africa, it is that the situation currently poses little risk to the U.S. general population. Our regular infection control and hygiene practices, our medical care systems, and a coordinated public health response will limit exposure to blood and body fluids and minimize the risk of EVD transmission.

Again, I thank you for your care and diligence in managing your patients. Together, I am confident we can protect the health of the people in Virginia from EVD.

Respectfully,

Marissa J. Levine, MD MPH
State Health Commissioner

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Ebola Virus Update #2

October 21, 2014

Dear Colleague:

First and foremost, thank you for your dedication and commitment to providing safe and effective care to patients in Virginia, including those who may have Ebola in their differential diagnosis. My colleagues and I appreciate the challenges that a person with suspected Ebola virus disease (EVD) presents in all health care venues. Today I am writing to be sure you are aware of the latest hospital personal protective equipment (PPE) guidance for the management of patients with EVD. I also want to clearly communicate that this revised CDC guidance is only relevant to hospital care. PPE guidance already issued for other health care venues (EMS, outpatient) is still in effect, although under review.

As of the writing of this letter, there are no confirmed cases of EVD in Virginia. Airport screening (of persons whose itinerary originated in Guinea, Liberia or Sierra Leone) was initiated at Dulles on 10/16/14. In addition, regional health care assessments and continued public health and health care system planning are underway.

Please review the guidance documents below which are intended for different health care settings:

Hospital-based Management of Patients with EVD: On October 20, 2014, the Centers for Disease Control and Prevention updated their 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). The procedures in this document provide detailed guidance on the types of personal protective equipment (PPE) to be used and on the processes for donning and doffing (i.e., putting on and removing) PPE for all healthcare workers entering the room of a patient hospitalized with Ebola virus disease.

Emergency Medical Services (EMS): The likelihood of contracting Ebola is extremely low unless a person has direct unprotected contact with the blood or body fluids (like urine, saliva, feces, vomit, sweat, and semen) of a person who is sick with Ebola. Public Safety Answering Points (PSAPS) should initiate modified caller queries to assess risk for EVD. The results of the risk assessment should be relayed to dispatched EMS personnel. EMS personnel should also check for symptoms and risk factors for Ebola, especially travel in the past 21 days in Guinea, Liberia and Sierra Leone. EMS should notify the receiving health care facility in advance when they are bringing a patient with suspected Ebola, so that proper infection control precautions can be taken. CDC Guidance for EMS Systems and 911 Public Saftety Answering Points (PSAPS) for Management of Patients with Known or Suspected Ebola Virus Disease in the United States is available, but is currently undergoing revision to align with the new guidance for hospitals.

Outpatient/Ambulatory Care Settings: Patients may present to an ambulatory/outpatient care setting with complaints of symptoms that may be consistent with EVD. It is important that outpatient settings have an ability to detect a suspect case of EVD, protect their health care workers while evaluating suspect patients, and have a response plan in place to notify public health and arrange for transport to an Emergency Department, when needed. Key actions to implement while caring for a patient under investigation (PUI) are to isolate the patient in a separate room with a separate bathroom; ensure standardized protocols are in place for PPE; interview the patient for symptoms, exposure risk, and travel history; and consider and evaluate for all potential alternate diagnoses while limiting elective tests or procedures. More information about caring for suspect or confirmed patients with Ebola can be found here: http://www.cdc.gov/vhf/ebola/hcp/caring-for-ebola-suspects.html.

Local and state public health will continue to respond to your questions and concerns, and will continue to provide technical assistance and consultation on individual patient scenarios as needed. You can find contact information for your local health department on the VDH website here: http://www.vdh.virginia.gov/LHD/ in addition to the many Ebola resources on our dedicated Ebola webpage for healthcare providers.

If your patients have general questions about Ebola, there are several sources of information. The number – **1-877-ASK-VDH3 (1-877-275-8343)** – now is available 24 hours a day, seven days a week. Virginia's 211 Call Center will be handling these calls using frequently asked questions (FAQs) developed by VDH. Ebola – Frequently Asked Questions also are on the VDH website and updates will be shared on Facebook and Twitter.

Please realize that guidance related to our response to Ebola will change over time nationally and here in Virginia. I will continue to ensure that all health care providers are updated on significant changes in a timely manner.

Thank you for your calm leadership and attention and dedication to staying informed about this evolving public health issue.

Sincerely,

Marissa J. Levine, MD, MPH, FAAFP
State Health Commissioner

A pdf version of this letter is available on the VDH Resources for Health Care Professionals web page.

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Ebola Virus Update #3

October 27, 2014

Dear Colleague:

Thank you for your ongoing collaboration in our efforts to prepare and respond to the unprecedented outbreak of Ebola in West Africa, and the small number of cases in the United States. There continues to be no cases of Ebola virus disease (EVD) in Virginia. As promised, I am providing the latest Virginia specific information about Ebola prevention efforts in this communication. Below is a summary of 1) Virginia's post-arrival active monitoring program of travelers entering the US from Guinea, Liberia and Sierra Leone, including those health care workers (HCW) who were caring for patients with EVD, and 2) information regarding other recently updated EMS and Emergency Department guidance from the Centers for Disease Control and Prevention (CDC).

The most important step to control EVD in the US is to control the outbreak in West Africa. To that end, I know I am joined by all Virginians in our support and gratitude to all health care workers who risk their lives to take part in the international effort to control the EVD outbreak in theses three countries. I am also personally grateful to all of you who have been working here in Virginia to prepare for and respond to EVD. We continue to support those of you who travel to serve in West Africa and want you to be fully aware of the required steps being implemented to ensure your continued health after a safe arrival home, as well as to protect the health of your families and communities.

Post-Arrival Active Monitoring in Virginia

Earlier this month, enhanced airport screening began at five international airports in the United States, including Washington Dulles International Airport. The Virginia Department of Health (VDH) has had protocols in place if, during airport screening, an asymptomatic traveler reported certain exposure risks, such as direct skin contact with, or exposure to blood or body fluids of, an EVD patient without appropriate personal protective equipment (PPE). To date, no such high risk exposures have been identified in patients listing Virginia as their final destination.

On Monday October 27, 2014 VDH began post-arrival daily monitoring of all international travelers with a final destination in Virginia whose travel originated in Guinea, Liberia or Sierra Leone. The protocol includes a 21-day monitoring program requiring twice daily temperature recording by all travelers and at least one daily contact with a local health department monitor. Airport personnel provide travelers with thermometers, log books, and information on the signs/symptoms of EVD, and contact information for public health. During the initial public health interview, the traveler will be asked about all potential exposures to a person with EVD while in these countries. Depending on an individual traveler's level of exposure, some of the traveler's activities may be restricted, including but not limited to use of mass transit, attendance at large social gatherings, and direct patient care activities. During the initial and subsequent monitoring by VDH personnel, travelers will also receive information on the actions to take if they become ill. The monitoring activities for and any restrictions on travelers in the post-arrival monitoring program will be spelled out in voluntary agreements. As Commissioner, however, I have the authority to issue an involuntary order of quarantine if a traveler is noncompliant with an agreement and I determine that the individual's actions are a threat to public health. In Virginia, Ebola is considered a communicable disease of public health threat and, if indicated, I will not hesitate to issue an order to protect the people of Virginia. The goal of the post-arrival active monitoring program is to provide an additional strategy that can help in the early identification of anyone ill with EVD, so that appropriate and swift public health and clinical action may be initiated as soon as possible. Our ultimate goal is to prevent any transmission of EVD, while also minimizing disruption to an individual's life upon return to Virginia.

Guidance for Emergency Medical Services and Public Safety Answering Points

On October 24, the Centers for Disease Control and Prevention published updated Interim Guidance for Emergency Medical Services (EMS) Systems and 9-1-1 Public Safety Answering Points (PSAPs) for Management of Patients with Known or Suspected Ebola Virus Disease in the United States.

We recognize that transporting and caring for suspect EVD patients in an EMS setting presents unique challenges. This updated interim guidance continues to emphasize the importance of close coordination and frequent communications among 9-1-1 Public Safety Answering Points (PSAPs), the EMS system, healthcare facilities, and the public health system when preparing for and responding to patients with suspected EVD. PSAPs should continue to question callers about relevant travel history and signs/symptoms of EVD and relay that information to their EMS personnel before they arrive to the location, so that appropriate PPE can be utilized. In turn, EMS staff should notify the receiving healthcare facility in advance when they are bringing a patient with suspected Ebola, so that proper infection control precautions can be taken at the healthcare facility before EMS arrives with the patient. I trust that many of these systems are already in place, and ask that you exercise these plans in your health care systems so that lessons can be learned prior to an event of concern.

Updated Guidance for Emergency Departments

On October 25, CDC published updated guidance for emergency departments: Identify, Isolate, Inform: Emergency Department Evaluation and Management for Patients Who Present with Possible Ebola Virus Disease. It is important to remember, that in general, the majority of febrile patients presenting to an emergency department do not have EVD, and the risk posed by patients with early, limited symptoms is lower than that from a patient hospitalized with severe EVD. Because the early symptoms of EVD resemble those of other viral illnesses, I ask that providers in emergency department settings review the guidance above regarding triage and evaluation processes to systematically assess patients for the possibility of Ebola Virus Disease. This CDC guidance includes an algorithm that reminds providers to identify travel history (widespread transmission of EVD is only occurring in Guinea, Liberia and Sierra Leone) and other exposure factors, assess for signs and symptoms, and as indicated, implement infection control precautions while informing your key hospital staff in addition to local public health. I thank you in advance for exercising your clinical judgment while utilizing these tools and protocols.

For any patient who has identified relevant travel history or exposure risk during their care and has symptoms that resolve while in the hospital or have been attributed to another cause, upon discharge, public health will initiate daily active monitoring identical to the post-arrival monitoring program described above. I hope this will provide some reassurance when making discharge plans for these patients. I encourage you to keep lines of communication open with your local health department while you are caring for any patient with suspect EVD.

Together, clinical partners and public health are rising to the challenge of Ebola virus disease. Guidance will likely continue to change as we learn along with our healthcare and public health partners nationwide. I continue my pledge to share information as it is updated. I know all of my colleagues throughout VDH stand ready to work closely with you and support the challenging work ahead.

Please contact your local health department with any questions about Ebola virus disease planning and preparation, or if you have patient-specific inquiries. Contact information for your local health department and many algorithms, protocols, and other resources can be found on VDH's Ebola webpage dedicated to health care providers. Remember to check this site as well as the CDC Ebola webpage frequently since guidance will continue to change.

Finally, as we enter flu season in Virginia, the management of travelers returning from the affected West African countries will only become more complex. Please promote flu prevention efforts now to help minimize the confusion that may arise.

Thank you for your commitment to the health of the people of Virginia.

Sincerely,

Marissa J. Levine, MD, MPH, FAAFP
State Health Commissioner

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