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Ebola Virus Disease Update

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This health alert provides an update on the Ebola Virus Disease (EVD) outbreak in West Africa and contains related resource links and recommendations for local healthcare providers.

Situation Update

West Africa is currently experiencing the largest Ebola outbreak in history and the first in the region. The severity of the outbreak prompted the World Health Organization (WHO) to declare the outbreak as a Public Health Emergency of International Concern (PHEIC). The Centers for Disease Control and Prevention (CDC) and other agencies and partners are taking steps to respond to this rapidly changing situation. As of August 21, 2014; 2,473 cases and 1,350 deaths have been reported.

Ebola poses no substantial risk to the U.S. population; to-date, no cases have been reported in the U.S., except for two healthcare workers who were evacuated from West Africa.

Ebola Virus Disease

The Ebola virus is spread through direct contact (through broken skin or mucous membranes) with bodily fluids (blood, urine, feces, saliva and other secretions) from a person who is symptomatic with EVD, or with objects like needles that have been contaminated with the virus. Ebola is not spread by air, food, or water. The incubation period is usually 8-10 days (range 2-21 days). The most common symptom of EVD is fever. Other symptoms may include severe headache, joint and muscle pain, sore throat and weakness, which may be followed by diarrhea, vomiting and stomach pain. Rash, red eyes and internal and external bleeding may also be seen. EVD is a severe, often fatal illness.

Recommendations for Healthcare Providers

CDC encourages all U.S. healthcare providers to inquire about patient travel history. Clinicians should be familiar with the symptoms of EVD and consider EVD in the differential diagnosis of febrile illness with compatible symptoms, in any person with recent (within 21 days) travel history to affected countries (Guinea, Sierra Leone, Liberia and Nigeria). Clinicians should specifically be alert for patients meeting the following clinical criteria and epidemiologic risk factors:

1. Clinical criteria: fever >38.6 degrees Celsius or 101.5 degrees Fahrenheit, and additional symptoms such as severe headache, muscle pain, vomiting, diarrhea, abdominal pain, or unexplained hemorrhage, and
2. Epidemiologic risk factors within the past 21 days before the onset of symptoms, such as contact with blood or other body fluids or human remains of a patient known to have or suspected to have EVD; residence in or travel to an area where EVD transmission is active (currently defined as Guinea, Sierra Leone, Liberia and Nigeria); or direct handling of bats, rodents, or primates from disease-endemic areas.

Healthcare providers are encouraged to consider alternative diagnoses in returning travelers with fever. <http://wwwnc.cdc.gov/travel/yellowbook/2014/chapter-5-post-travel-evaluation/fever-in-returned-travelers>.

Laboratory Testing

CDC is able to test Ebola virus using a real-time RT-PCR assay. Clinicians and laboratories interested in testing a patient with suspect or rule-out EVD should immediately contact Disease Control to discuss the need for EVD testing. Hospital laboratorians should not open, centrifuge, split or otherwise process the specimens. After Disease Control is consulted, staff from the Public Health Laboratory will facilitate the processing and packaging of all EVD specimens and will arrange transport to the CDC. The CDC has developed interim guidance for laboratories which is available at <http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-specimen-collection-submission-patients-suspected-infection-ebola.html>.

Infection and Prevention Control Recommendations

Early recognition of EVD is critical for infection control. Any patient with suspect EVD should be isolated immediately until the diagnosis is confirmed or EVD is ruled out. Standard, contact, and droplet precautions are recommended for hospitalized patients. The complete infection prevention and control guidelines can be found on the CDC website (<http://www.cdc.gov/vhf/ebola/>). Key elements of infection control for EVD in the hospital setting include the following:

1. The patient should be placed in a single-patient room, containing a private bathroom, with door closed.
2. All persons entering the room should wear at least:
 - Gloves
 - Gown (i.e. fluid resistant or impermeable)
 - Eye protection (i.e., goggles or face shield)
 - Facemask
3. Additional personal protection equipment (PPE) may be required in certain situations (e.g., copious amounts of blood, other body fluids, vomit or feces), including but not limited to double gloving, disposable shoe covers and leg coverings.
4. Hand hygiene should be performed before and after all patient contact, contact with potentially infectious material, and before putting on and upon removal of PPE, including gloves.
5. Dedicated medical equipment should be used for provision of patient care; all non-dedicated, non-disposable equipment should be cleaned and disinfected according to manufacturer's instructions and hospital policies.
6. Limit use of needles and other sharps; handle all needles and sharps with extreme care. Avoid the use of pneumatic tube systems to decrease risk of breakage or leaks.
7. Limit phlebotomy, laboratory testing, and other procedures to the minimum necessary for essential diagnostic evaluation and medical care.
8. Avoid aerosol-generating procedures; if these procedures are necessary, wear respiratory protection at least as protective as a NIOSH certified, fit tested, N95 filtering face-piece respirator or higher, in addition to the recommended PPE listed above, and perform the procedure in an airborne isolation room.
9. When disinfecting the patient's room, ensure cleaning staff are wearing appropriate PPE and using one of the following disinfectants: 10% sodium hypochlorite (bleach) solution or hospital grade quaternary ammonium or phenolic products. CDC Interim Guidance for Environmental Infection Control in Hospitals for EVD is located at: <http://www.cdc.gov/vhf/ebola/hcp/environmental-infection-control-in-hospitals.html>.

Treatment

There are currently no FDA-approved treatments for EVD. Clinical management is supportive care; more details can be found at: <http://www.cdc.gov/vhf/ebola/>.

Reporting Suspect EVD Cases

Immediately report any person suspected of having Ebola Virus Disease to Disease Control. Business hours: (951) 358-5107. After Hours: (951) 782-2974 (ask for the Public Health Second Call Duty Officer).