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To: Jefferson County Health Care Providers

From: Tom Locke, MD, MPH, Jefferson County Health Officer

Re: Ebola Update #2

Situation Report: The unprecedented Ebola virus disease (EVD) outbreak in West Africa continues unabated with case doubling times in the 3-4 week range. Outbreak activity is confined to three nations: Sierra Leone, Liberia, and Guinea. Spread to Nigeria and Senegal has been arrested due to diligent containment efforts. If international relief efforts continue to ramp up, the epidemic can be contained by the end of the year. If these containment efforts fail, EVD could become endemic in Africa.

Several health care workers who developed EVD while working to combat the epidemic have been flown back to the U.S. for treatment. To date, all have survived. A single imported case, a Liberian citizen who developed symptoms while in Dallas has died. Two health care workers who participated in his care became infected. They have now recovered. A New York-based physician, recently returned from work with Doctors without Borders has been diagnosed with EVD. The media frenzy that is stoking and exaggerating public fears about Ebola continues unabated.

Transmission Risk: The transmission risk of Ebola is well understood. A patient only becomes infectious once symptoms develop and the viral load begins to rise. Viral titers increase logarithmically as the illness progresses and virus is shed in virtually all body fluids – including tears, sweat, and saliva. Gastrointestinal symptoms are prominent with copious emesis and diarrhea. All of these factors make infection control at the peak of the illness very difficult and health care providers are at increasing risk of exposure as the infection progresses. Stringent transmission-based precautions - standard, contact, and droplet – must be maintained at all times. The CDC has issued new and detailed guidelines for use of Personal Protective Equipment (PPE) in facilities caring for patients with EVD.

Early Identification of Ebola Patients: All travelers from Ebola affected countries are now being screened at the time of their departure, at hub airports in Europe, and on arrival in the U.S. There are no direct commercial flights from West Africa to the U.S. Each traveler will be contacted daily for 21 days to assure that twice daily temperatures are being taken and to conduct symptom screening. While it is unlikely that a recently traveler from West Africa will present for health care at a health care facility on the Olympic Peninsula, **all U.S. health care providers are being asked to obtain a travel history on all patients presenting with a fever (>=100.4º F) OR other symptoms consistent with EVD (e.g., myalgia, headache, abdominal pain, vomiting, diarrhea, or unexplained bleeding, bruising, or hemorrhage).** Patients with a travel history to an Ebola-affected country in West Africa (currently Guinea, Liberia, and Sierra Leone) OR with direct contact (healthcare, laboratory, household, or

sexual) with a known or suspected Ebola patient (or with the patient's blood/body fluids, or remains) should be promptly isolated pending determination of their Ebola infection status.

Isolation Standards: Initial isolation should be in a closed private room with private bathroom or commode. If the setting is an outpatient clinic, the exam room door should be closed and signage put up to prevent unnecessary entry. The Health Department and Jefferson Healthcare should be immediately contacted to facilitate testing. Isolation should be maintained until test results are available. All healthcare workers and family members who enter the room should wear appropriate PPE.

Diagnostic Testing for Ebola: PCR testing with a 6 hours turnaround time is being provided by the WA State Public Health lab in Shoreline. Testing requires two purple top tubes of blood. Specimen transport time to the lab is 2-3 hours and must be done in a special container which the Health Department will supply. It may be necessary to transport the patient to an alternate facility during this long wait time.

Probable Scenarios: The unanticipated evaluation of an Ebola-infected individual in an outpatient setting would be an extraordinary occurrence. As the West African outbreak worsens, however, the number of people being tested and treated for EVD in the U.S. will increase. Most cases will be in health care workers who have returned from providing care in the Ebola-affected countries. Some cases will be in recent travelers (<21 days) from Ebola-affected countries. All of these individuals will be under some form of observation, ranging from the twice daily temperature and symptom monitoring to full quarantine for those with high risk exposures (health care workers without adequate PPE or those who have had direct exposure to cases or their body fluids). People who are being monitored for EVD who develop fevers and/or Ebola-associated symptoms are the most likely group to need evaluation locally. These are situations where special protocols are needed – isolation of the suspect case, PPE for anyone who has contact with them, and expedited testing of a blood sample.

Priority Tasks: The highest priorities at this time are to assure that systems are in place to inquire about travel history on all patients who are febrile or have symptoms consistent with early Ebola infection AND that health care workers are familiar with PPE protocols and have the opportunity to practice safe donning and doffing of equipment. This is of particular importance to hospital personnel who may be providing extended care to those in whom Ebola infection is confirmed. It is likely that definitive care of Ebola patients will be done in tertiary care centers that have a full range of life support and therapeutic options available. It should be encouraging that of the 9 individuals who have been treated for Ebola is the U.S., only 1 has died, suggesting that early diagnosis and treatment can reduce the case fatality rate far below the 60-70% rate being seen in Africa.

Resources:

Detailed guidelines are available at the CDC website:
http://www.cdc.gov/vhf/ebola/hcp/index.html

Washington State Protocols for Testing, Reporting, and Isolation are available at:
http://www.doh.wa.gov/ForPublicHealthandHealthcareProviders/NotifiableConditions/EbolaResources