Evaluation and Management of Suspected EVD Cases: Information for Health Care Providers, Emergency Medical Services Personnel, and Public Health Officials

It is important to consider that infectious diseases can be acquired and carried by travelers to, or from, any destination in the world. Assessing a patient's travel history is a critical step to understanding how to best address a patient's chief concerns and health issues. An active dialogue between patients and clinicians to accurately assess travel experiences and exposures can be vital to the understanding of many conditions. Diseases occurring at any given time in geographic locations around the world vary greatly and are continuously changing, so keeping up to date with disease trends and knowing where to look for information can be vital. The CDC's Traveler's Health Website (http://wwwnc.cdc.gov/travel) and "Yellow Book" (http://wwwnc.cdc.gov/travel/page/yellowbook-home) provide current information on current situations in other countries. In addition, KDHE has developed an information campaign to encourage a comprehensive approach to increasing awareness of global infectious disease threats. Additional information is available at http://www.kdheks.gov/epi/thinktravelhistory.htm (including downloadable posters) and on Twitter or Facebook by searching #ThinkTravelHistory.

Patients with recent travel (i.e., within the previous 21 days) from countries with current outbreaks or local transmission of EVD who present with fever are more likely to have other potentially serious infectious diseases that should be considered in the differential diagnoses – including but not limited to malaria, typhoid fever, viral respiratory infections, and bacterial infections such as pneumonia – than they are to have EVD.

However, effective patient and public health management require prompt reporting of any potential EVD case to KDHE.

Report all suspect EVD cases within four (4) hours to the KDHE Epidemiology Hotline:

877-427-7317

State-designated Centers of Excellence for Infectious Disease Preparedness and Frontline Hospitals

All hospitals in Kansas have an important responsibility regarding preparedness for infectious diseases, including Ebola virus and other high-consequence pathogens. As part of the domestic Ebola virus preparedness and response effort, the CDC has developed a framework for a tiered approach for hospitals in the U.S. Full details are available at http://www.cdc.gov/vhf/ebola/healthcare-us/preparing/hospitals.html. In this framework, hospitals can serve one of three roles:

- Frontline healthcare facilities
- Ebola assessment hospitals
- Ebola treatment centers

Most hospitals in the U.S. and in Kansas are considered as frontline healthcare facilities. Briefly, frontline hospitals should be able to rapidly identify and triage patients with relevant exposure history and signs or symptoms compatible with EVD, appropriately isolate and manage such patients using appropriate PPE and other infection prevention protocols, notify KDHE of suspect case, and initiate appropriate testing (including for other, more common acute conditions consistent with the signs and symptoms for patients in the low risk category).

As part of the Hospital Preparedness Program Ebola virus cooperative agreement, state health departments are required to designate at least one hospital in the state capable of serving as an Ebola assessment hospital. KDHE engaged regional hospital preparedness coordinators in a planning process to consider the best designation strategy for Kansas. Through this consensus process, it was determined that Kansas would best be served by one designated hospital in each of the Kansas City and Wichita metropolitan areas, respectively. With the recognition that hospital preparedness for high-consequence infectious diseases encompasses much more than Ebola virus, KDHE has designated two hospitals in Kansas as *Centers of Excellence for Infectious Disease Preparedness:*

The University of Kansas Hospital	**Via Christi Hospital St. Francis**
3901 Rainbow Blvd.	929 St Francis N
Kansas City, KS 66160	Wichita, KS 67214

Through a self-assessment process and discussions with KDHE staff, each of the designated hospitals has demonstrated a high degree of preparedness for managing and caring for patients with suspected Ebola virus disease and other high consequence infectious pathogens. In addition, the designated hospitals will engage in intensive planning, exercising, and training activities to enhance their preparedness capabilities.

Persons under public health monitoring who develop symptoms consistent with EVD will be managed according to their exposure risk category and clinical signs and symptoms as indicated in Appendix 2. In general, persons in the “Low (but not zero) Risk” exposure category who are clinically stable and do not have bleeding, vomiting, or diarrhea will be encouraged to seek care at the local hospital of their choice, which in some cases may be frontline healthcare facilities.

Patients who are experiencing bleeding, vomiting, or diarrhea or who are in higher exposure risk categories will be encouraged to seek care at a designated Center of Excellence for Infectious Disease Preparedness or, depending on geographic factors, a designated Ebola Assessment Hospital in a neighboring state. Any such action will depend on the circumstances and will be closely coordinated between the patient, local health department, state health department(s), and designated hospital.

Coordination of patient care at must take into consideration several factors, including the wishes of the patient. All hospitals should be familiar with the KDHE Ebola Virus Disease Preparedness and Response plan (this document), the CDC tiered framework for hospitals, and requirements under the Emergency Medical Treatment and Labor Act (EMTALA). The U.S. Centers for Medicare and Medicaid Services (CMS) and implications for EVD. See attached CMS memorandum dated 21 November 2014 as Appendix 9.

Infection Prevention and Control Recommendations for Hospitalized Patients with Known or Suspected Ebola Virus Disease in U.S. Hospitals

In this guidance health care personnel (HCP) refers to all persons, paid and unpaid, working in health care settings who have the potential for exposure to patients or to infectious materials, including body substances, contaminated medical supplies and equipment, contaminated environmental surfaces, or aerosols generated during certain medical procedures. HCP include, but are not limited to, first responders, physicians, nurses, nursing assistants, therapists, technicians, emergency medical service personnel, morticians, dental personnel, pharmacists, laboratory personnel, autopsy personnel, students and trainees, contractual personnel, home health care personnel, and persons not directly involved in patient care (e.g., clerical, dietary, house-keeping, laundry, security, maintenance, billing, chaplains, and volunteers) but potentially exposed to infectious agents that can be transmitted to and from HCP and patients. However, there are special considerations for outpatient settings as provided below. This guidance is not intended to apply to persons outside of health care settings.

All persons entering the hospital room of a patient with suspected or confirmed Ebola should adhere to the PPE guidance as detailed in Appendix 4.

As new information becomes available, these recommendations will be re-evaluated and updated as needed. These recommendations are based upon the most current information available and the following considerations:

- High rate of morbidity and mortality among infected patients
- Risk of human-to-human transmission
- Lack of FDA-approved vaccine and therapeutics

If a patient in a Kansas health care facility is suspected or known to have EVD, health care facilities should:

- Isolate the patient: Patients should be isolated in a single patient room (containing a private bathroom whenever possible) with the door closed.
- Wear appropriate PPE as recommended in Appendix 4, including the use of a trained observer.
- Restrict visitors: Avoid entry of visitors into the patient's room. Exceptions may be considered on a case-by-case basis for those who are essential for the patient's wellbeing. Ensure that visitors wear appropriate PPE. A logbook should be kept to document all persons entering the patient's room. See CDC's infection control guidance on procedures for monitoring, managing, and training of visitors.
- Avoid aerosol-generating procedures: If performing these procedures is necessary, they should be performed in an airborne infection isolation room.
- Implement environmental infection control measures: Diligent environmental cleaning and disinfection and safe handling of potentially contaminated materials are of paramount importance, as blood, sweat, vomit, feces, urine, and other body secretions represent potentially infectious materials and should be handled following hospital protocols.

Additional guidance and information can be found in Appendix 4, including a one-page guide for PPE.

Transport of Patients with Suspected or Confirmed Ebola Virus Disease

KDHE has entered into an agreement with the Major Emergency Response Group (MERGe), which is a state resource operated by the Region III EMS Council. As part of this group, the Sedgwick County EMS Biosafety Transport Team provides safe transport of patients with serious infectious diseases, including Ebola virus disease. The team is comprised of three different groups: the transport group, a decontamination group, and safety officers to ensure isolation procedures are properly followed.

In the event an EVD case in Kansas (confirmed or strongly suspected) is identified and needs to be transported, KDHE will authorize such transfer on a case by case basis. Additional details are provided in Appendix 8.

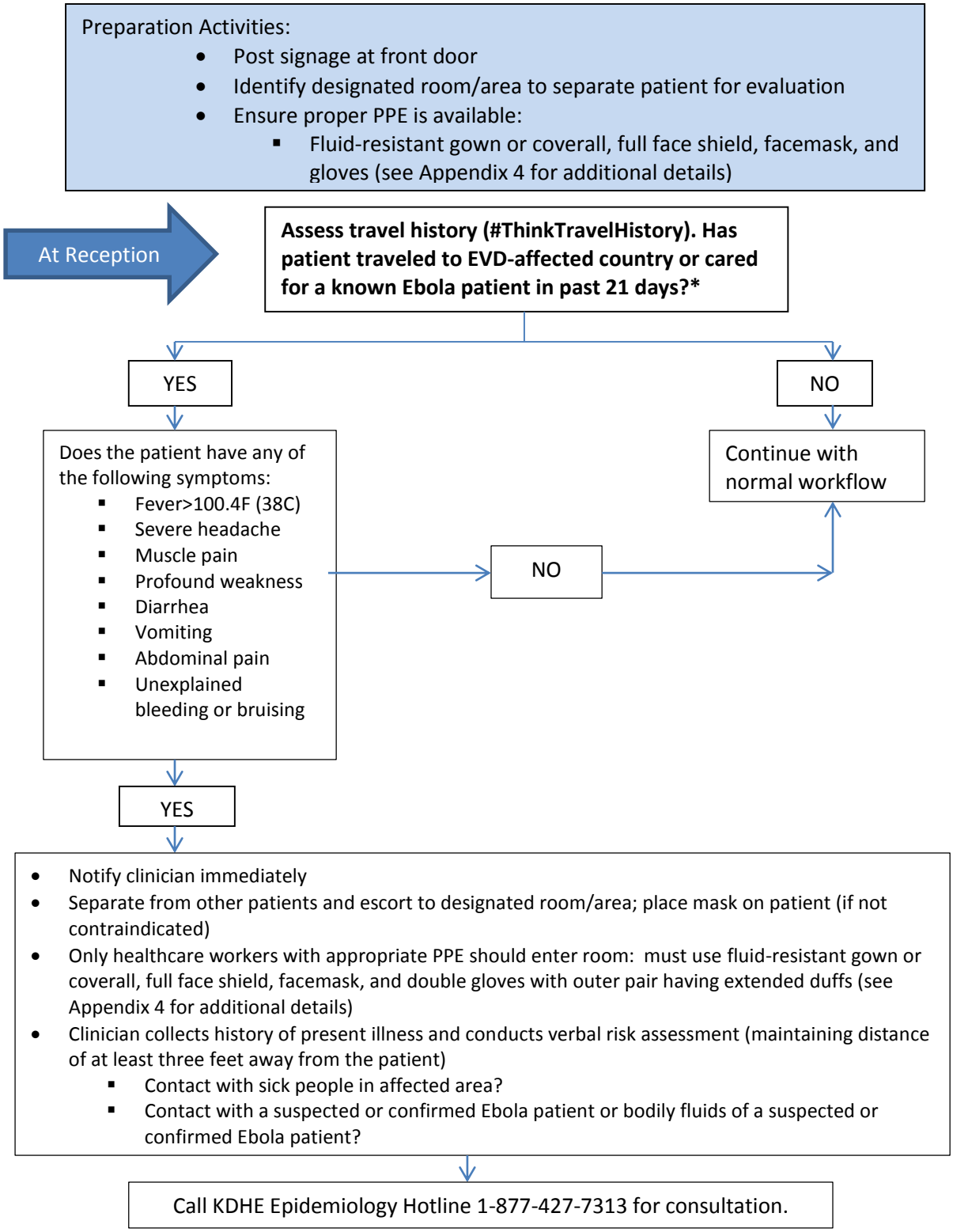
Special Considerations for Outpatient Settings

Patients with suspected Ebola virus disease (i.e., those with pertinent travel history and symptoms consistent with EVD) should be immediately given a surgical mask to don (if tolerated and not medically contraindicated), placed in an isolation gown and isolated in a private patient room. If feasible, facilities should consider utilizing a bathroom for this purpose to facilitate environmental cleaning and decontamination. A chair or two can be placed in the bathroom for the patient to sit; however, if they are ill and require lying down, the facility should identify the best room to do this and prevent other staff/visitors from entering until the final disposition of the patient is determined.

Health care workers in outpatient settings should minimize potential exposure to a patient with suspected EVD by maintaining a distance of at least three feet from patient and avoiding provision of direct, hands-on patient care. If direct patient care is required until the patient is transferred, a single staff member who is trained in proper donning and doffing of PPE should be designated to interact with the patient. The appropriate level of PPE should be utilized as designated in Appendix 4.

Suspected EVD patients should be transported to an appropriate referral hospital in the private vehicle they arrived in with law enforcement escort, if feasible. The outpatient clinic should first notify the referral hospital prior to transporting the patient and make arrangements to be called to confirm the patient arrived. A flowchart for evaluating suspected Ebola virus disease patients is presented in Figure 2.

Figure 2: KDHE Interim Guidelines for Evaluation of Suspected EVD Patients at Outpatient Clinic and Physician's Offices



* http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/distribution-map.html#areas