

Michigan Ebola Guidance Summary

Complete updates are posted at <http://www.cdc.gov/vhf/ebola/index.html>.

Background:

- Death rate can be as high as 90%, but in this outbreak is currently around 55-60%

Case Evaluation Criteria:

- Early recognition is critical. Healthcare providers should be alert for and evaluate suspected patients for Ebola virus infection who have both consistent symptoms and certain epidemiologic risk factors:
 - 1. Clinical criteria, including fever ($\geq 101.5^{\circ}\text{F}$) and additional symptoms such as severe headache, myalgia, vomiting, diarrhea, abdominal pain, or unexplained hemorrhage**
 - AND**
 - 2. Epidemiologic risk factors within the past 3 weeks before the onset of symptoms, such as:**
 - **Contact with blood or other body fluids of a patient known to have or suspected to have EVD;**
 - **Residence in – or travel to – an area where EVD transmission is active (currently Guinea, Liberia, and Sierra Leone); or**
 - **Direct handling of bats, rodents, or primates from disease-endemic areas**
- **Malaria diagnostics should also be a part of initial testing because it is a common cause of febrile illness in persons with a travel history to the affected counties.**

Process for Suspect Cases:

All suspect cases should be immediately reported to the Michigan Department of Community Health (MDCH) for evaluation and/or diagnostic testing:

MDCH Communicable Disease Division	Monday-Friday 8:00 a.m. – 5:00 p.m.: 517-335-8165
	Weekends and off-hours: 517-335-9030
	Fax for MDCH Supplemental EVD Case Investigation Form: 517-335-8263
Laboratory testing information	Janice Matthew Greer, MDCH Virology Section: 517-335-8099

Diagnostic Testing Criteria:

Testing of patients with suspected EVD should be guided by the risk level of exposure. Based on the following criteria, if testing is indicated, **notify MDCH immediately at the numbers listed above.**

Asymptomatic persons with high-or low-risk exposures should be monitored daily for fever and symptoms for 21 days from the last known exposure and evaluated medically at the first indication of illness.	
High-risk exposure: CDC recommends testing for all persons with onset of fever within 21 days of	▫ Percutaneous or mucous membrane exposure or direct skin contact with body fluids of a person with a confirmed or suspected case of EVD without appropriate Personal Protective Equipment (PPE)

<p>having a high-risk exposure</p> <p>For persons with a high-risk exposure but without a fever, testing is recommended only if there are other compatible clinical symptoms present and blood work findings are abnormal or unknown.</p>	<ul style="list-style-type: none"> ▫ Laboratory processing of body fluids of suspected or confirmed EVD cases without appropriate PPE or standard biosafety precautions, or ▫ Participation in funeral rites or other direct exposure to human remains in the geographic area where the outbreak is occurring without the appropriate PPE
<p>Low-risk exposure: Testing is recommended for persons with low-risk exposure who develop fever and either:</p> <ul style="list-style-type: none"> ▫ Other symptoms and unknown or abnormal blood work findings <p>OR</p> <ul style="list-style-type: none"> ▫ Abnormal blood work findings, but no other symptoms 	<ul style="list-style-type: none"> ▫ Persons who spent time in a healthcare facility where EVD patients are being treated (encompassing healthcare workers who used appropriate PPE, employees not involved in direct patient care, or other hospital patients who did not have EVD and their family caretakers) ▫ Household members of an EVD patient without high-risk exposures as defined above ▫ Persons who had direct unprotected contact with bats or primates from EVD-affected countries would also be considered to have low-risk exposure
<p>No known exposure: Contact MDCH for evaluation regarding testing for persons who have traveled to an EVD-affected country within 21 days but do not meet the criteria for high-or low-risk exposure above.</p>	<ul style="list-style-type: none"> ▫ Persons with no known exposure who were present in an EVD outbreak-affected country in the past 21 days with no low-risk or high-risk exposures

Laboratory Specimen Guidance:

If testing is indicated:

- Immediately notify MDCH. Contact MDCH Bureau of Laboratories before any specimens are collected and submitted.
- Minimum volume of 4mL whole blood preserved with EDTA (purple top) in *plastic* (NOT GLASS) collection tubes can be submitted to MDCH Bureau of Laboratories for EVD testing
- Standard labeling should be applied for each specimen.
- Both the MDCH and the CDC submission forms are to be completed for specimen testing:
 - MDCH specimen submission form: http://www.michigan.gov/documents/DCH-0583TEST_REQUEST_7587_7.pdf
 - Important: include the type of test requested (i.e., “Ebola virus serology” and/or “Ebola virus PCR” into the blank space found under “Hepatitis” at the bottom right side of page 1.
 - CDC specimen submission form: http://www.michigan.gov/documents/mdch/HUMAN_form-50-34_410210_7.pdf

Recommended Infection Control Measures for Healthcare Providers:

Any hospital with suspected patients should follow CDC’s Infection Prevention and Control Recommendations for Hospitalized Patients with Known or Suspected Ebola Hemorrhagic Fever in U.S. Hospitals (<http://www.cdc.gov/vhf/ebola/hcp/infection-prevention-and-control-recommendations.html>) .These recommendations include:

<p>Patient placement Healthcare provider protection: PPE should be worn, including:</p>	<ul style="list-style-type: none"> ▫ Single patient isolation room containing a private bathroom with the door closed ▫ Gloves ▫ Gown (fluid-resistant or impermeable) ▫ Eye protection (goggles or face shield) ▫ Facemask ▫ Additional PPE might be required in certain situations (e.g., copious amounts of body fluids or feces present in the environment) – including but not limited to: double-gloving, disposable shoe covers, and leg covers
<p>Aerosol-generating procedures: Avoid these procedures. If they are necessary, PPE should include:</p>	<ul style="list-style-type: none"> ▫ Gloves ▫ Gown ▫ Disposable shoe covers ▫ Either a face shield that fully covers the front and sides of the face or goggles and respiratory protection (N95 filtering facepiece respirator or higher) ▫ Perform procedure in an airborne isolation room

<u>Environmental infection control:</u>	▫ Diligent environmental cleaning, disinfection, and safe handling of materials is paramount
	▫ Appropriate disinfectants for EVD and other filoviruses include 10% sodium hypochlorite (bleach) solution, or hospital-grade quarternary ammonium or phenolic products
	▫ Providers performing environmental cleaning should wear recommended PPE described above and consider use of additional barriers (e.g., shoe and leg coverings) if needed
	▫ Face protection should be worn when performing tasks such as liquid waste disposal that can generate splashes
	▫ Follow standard procedures, per hospital policy and manufacturers' instructions, for cleaning and/or disinfection of environmental surfaces, equipment, textiles, laundry, food utensils, and dishware

MDCH Supplemental EVD Case Investigation Form:

Refer to the "MDCH Interim Guidelines for Evaluation of U.S. Patients Suspected of Having EVD" to access the MDCH Supplemental EVD Case Investigation Form. This form should be faxed to the MDCH Communicable Disease Division at 517-335-8263.