

IN THIS ISSUE: CDC HAN – UPDATE ON EBOLA VIRUS DISEASE OUTBREAK

CDC HEALTH ALERT NETWORK (HAN)

Update on Ebola Virus Disease (*Sudan ebolavirus*) Outbreak in Central Uganda

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Summary

The Centers for Disease Control and Prevention (CDC) is issuing this Health Alert Network (HAN) Health Update as a follow-up to a HAN Health Advisory (Outbreak of Ebola virus disease (*Sudan ebolavirus*) in Central Uganda) issued on October 6, 2022

<https://emergency.cdc.gov/han/2022/han00477.asp>.

This Health Update serves to inform public health departments, public health laboratories, and clinicians in the United States about the ongoing outbreak of Ebola virus disease (EVD) in Uganda caused by Sudan virus (species *Sudan ebolavirus*). **No suspect or confirmed EVD cases related to this outbreak have been reported in the United States (U.S.) or other countries outside of Uganda to date.** However, as a precaution because of increasing cases in Uganda, CDC is communicating with public health departments, public health laboratories, and healthcare workers in the United States to provide an update and raise awareness of this outbreak and the potential for importation of cases.

Background

On September 20, 2022, the Ministry of Health of Uganda officially declared an outbreak of EVD caused by Sudan virus (species *Sudan ebolavirus*) in Mubende District, Central Uganda.

As of November 5, 2022, a total of 132 confirmed cases of EVD have been identified in Uganda; 39% of confirmed cases have died. To date, there have been a total of 61 patients with confirmed EVD that have recovered from illness and been discharged. Seven districts in Uganda have reported cases since the outbreak began, including Mubende, Kassanda, Kyegegwa, Bunyangabu, Kagadi, Wakiso, and the capital city of Kampala. Two of these districts (Bunyangabu and Kagadi) have completed 21 days of monitoring of all identified contacts of confirmed cases and have had no

new EVD cases identified since. CDC is working closely with the Ministry of Health of Uganda, the World Health Organization, and other partners to support the response to this outbreak.

Travel volume from Uganda to the United States is low, and there are no direct flights from Uganda to the U.S. Since October 7, 2022, U.S.-bound air passengers who have been to Uganda in the prior 21 days are being redirected to five U.S. airports where they undergo entry health screenings as part of a layered mitigation approach that, in combination with other public health measures already in place to detect ill arriving travelers, are designed to reduce the risk of introduction and spread of disease in the U.S.

Recommendations for Clinicians

Early consideration of EVD in the differential diagnosis is important for providing appropriate and prompt patient care and to prevent the spread of infection. It is important to systematically assess patients for the possibility of EVD through a triage and evaluation process

<https://www.cdc.gov/vhf/ebola/clinicians/evaluating-patients/index.html>. In the absence of concern for a suspect EVD case, prior travel to Uganda should not be a reason to defer standard laboratory testing needed for routine patient care.

Given the early non-specific symptoms of EVD, all patients should be asked about recent travel history.

EVD should be included as a differential in patients with travel to Uganda in the past 21 days who have clinical symptoms such as fever, headache, muscle and joint pain, fatigue, loss of appetite, gastrointestinal symptoms, or unexplained bleeding. If EVD is suspected, patient(s) should be isolated in a private room with a private bathroom or covered, bedside commode. Clinicians should wear appropriate personal protective equipment (PPE) and limit the number of personnel who enter the room for clinical evaluation and management

<https://www.cdc.gov/vhf/ebola/healthcare->

[us/pe/guidance.html](https://www.cdc.gov/ppe/guidance.html). Importantly, alternative diagnoses such as malaria, COVID-19, influenza, or common causes of gastrointestinal and febrile illnesses in a patient with recent travel should be considered, evaluated, and managed appropriately.

Healthcare personnel can be exposed by touching a patient's body fluids, contaminated medical supplies and equipment, or contaminated environmental surfaces. Splashes to unprotected mucous membranes (for example, the eyes, nose, or mouth) are particularly hazardous. Procedures that can increase environmental contamination with infectious material or create aerosols should be minimized

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/faq.html#Infection-Control>. CDC recommends a combination of measures to prevent transmission of EVD in hospitals including PPE, patient placement, and patient care considerations <https://www.cdc.gov/vhf/ebola/clinicians/evd/infection-control.html>.

Clinicians with concerns about a patient with suspect EVD should contact their state, tribal, local, or territorial (STLT) health department immediately, Washoe County Health District's on-call number is 775-328-2447, and follow jurisdictional protocols for patient assessment. Early recognition and identification of a suspect EVD case is critical

<https://www.cdc.gov/vhf/ebola/clinicians/evaluating-patients/think-ebola.html>. If a diagnosis of EVD is considered, clinical teams should coordinate with STLT public health officials and CDC to ensure appropriate precautions are taken to help prevent potential spread and coordinate care.

Recommendations and Resources for Public Health Departments

CDC's Viral Special Pathogens Branch (VSPB) is available 24/7 for consultations about Ebola or other viral hemorrhagic fevers by calling the CDC Emergency Operations Center at 770-488-7100 and requesting VSPB's on-call epidemiologist or by e-mailing spather@cdc.gov.

On October 7, 2022, as part of the U.S. domestic response to the outbreak of EVD caused by Sudan virus in Uganda, CDC provided updated interim guidance for health departments on risk assessment and management of people with potential ebolavirus exposure <https://www.cdc.gov/quarantine/interim-guidance-risk-assessment-ebola.html>. The interim guidance recommends follow-up measures for travelers who have been in Uganda in the prior 21 days. In

managing travelers from Uganda, health departments should establish contact with travelers arriving in their jurisdictions, conduct an initial assessment of exposure risk, provide health education, and conduct symptom monitoring based on travel history and exposure risk. CDC is sharing travelers' contact information with health departments in travelers' final destinations to facilitate these activities. The initial assessment should occur as soon as possible, ideally within 24 hours of receiving CDC's notification of the traveler's arrival.

If a suspect EVD case is identified in the United States, testing for Sudan virus and other ebolaviruses is available at CDC (Atlanta, Georgia) and within the Laboratory Response Network (LRN). To date, twenty-five geographically diverse LRN laboratories are able to test using the Biofire FilmArray NGDS Warrior Panel, with several more LRN laboratories working toward testing capability. The Warrior Panel can detect Ebola, Sudan, Tai Forest, Bundibugyo, and Reston viruses.

CDC and the Administration for Strategic Preparedness and Response (ASPR) are working with U.S. jurisdictions, starting with states with the highest likelihood for detecting a suspect EVD case, to review plans for (a) identifying and managing suspect cases locally, and (b) coordinating transportation in the event that a patient requires transfer to another facility for evaluation or treatment, such as a Regional Ebola and Other Special Pathogen Treatment Center (RESPTC).

CDC is also able to deploy CDC Ebola Response Teams (CERT) made up of highly trained public health and healthcare infection control experts—including medical officers, epidemiologists, infection control specialists, and analysts—who can be anywhere in the United States within hours of a request from a jurisdiction with a highly concerning suspect or confirmed domestic case of EVD. The teams do not provide direct medical care to patients but coordinate response activities with state and local health departments and provide guidance and recommendations on how to prepare a healthcare facility to prevent spread and provide safe and effective care for patients with EVD.

Clinical and Laboratory Biosafety Considerations

All personnel handling specimens from patients with suspect EVD, especially patients with travel history to Uganda within 21 days before symptom onset, should adhere to recommended infection control practices to prevent infection and transmission among laboratory personnel

<https://www.cdc.gov/vhf/ebola/clinicians/evd/infection-control.html> .

Under the Occupational Safety and Health Administration's (OSHA's) Bloodborne Pathogens Standard, laboratories handling blood and body fluids must have a written Exposure Control Plan in place to eliminate or minimize employees' risk of exposure to blood or other potentially infectious materials. Laboratories that may receive or handle clinical specimens including blood or other potentially infectious materials should conduct extensive risk assessments to identify and mitigate hazards associated with handling the specimens to create the safest environment. The proper PPE needs to be available, and staff trained to properly don and doff their PPE <https://www.cdc.gov/vhf/ebola/hcp/ppe-training/index.html>. Staff need to be specially trained, have passed competency testing, and attended drills to safely receive, handle, and process these specimens. A laboratory should have dedicated space, equipment for handling, testing, and transporting specimens from ill patients, and plans for minimizing specimen manipulation.

A waste management plan needs to be in place for laboratory reagents and Category A waste, including PPE and sample material.

If a facility does not have the appropriate risk mitigation capabilities, then the specimen should be forwarded to another facility that does.

More About Ebola Virus Disease

A person infected with EVD is not contagious until symptoms appear. Symptoms may include fever, headache, muscle and joint pain, fatigue, loss of appetite, gastrointestinal symptoms, or unexplained Bleeding <https://www.cdc.gov/vhf/ebola/symptoms/index.html>. Sudan virus is spread through direct contact (through broken skin or mucous membranes) with the body fluids (blood, urine, feces, saliva, droplet, or other secretions) of a person who is sick with or has died from EVD, with the body fluids of infected animals (including those that died from EVD), or with objects like needles that are contaminated with the virus. EVD is not spread through airborne transmission.

There is currently no Food and Drug Administration (FDA)-licensed vaccine to protect against Sudan virus infection. The Ebola vaccine licensed in the United States (ERVEBO,[®] Ebola Zaire Vaccine, Live, also known as V920, rVSVΔG-ZEBOV-GP or rVSV-ZEBOV) is indicated for preventing EVD due to Ebola virus (species *Zaire ebolavirus*), and based on studies in animals; it is not expected to protect against Sudan

virus or other viruses in the *Ebolavirus* genus. There is also currently no FDA-approved treatment for Sudan virus.

In the absence of early diagnosis and appropriate supportive care, EVD is a disease with a high mortality rate. Occasional outbreaks have occurred mostly on the African continent. With intense supportive care and fluid replacement, mortality rates may be lowered. EVD most commonly affects humans and nonhuman primates, such as monkeys, gorillas, and chimpanzees. The genus *Ebolavirus* is known to comprise the following six species:

- Ebola virus (species *Zaire ebolavirus*)
- Sudan virus (species *Sudan ebolavirus*)
- Taï Forest virus (species *Taï Forest ebolavirus*, formerly *Côte d'Ivoire ebolavirus*)
- Bundibugyo virus (species *Bundibugyo ebolavirus*)
- Reston virus (species *Reston ebolavirus*)
- Bombali virus (species *Bombali ebolavirus*)

Of these, only four (Ebola, Sudan, Taï Forest, and Bundibugyo viruses) are known to cause EVD in humans. Infection with any Ebola species presents as clinically similar disease. Previous outbreaks of Sudan virus have had a mortality rate of approximately 50%.

The current outbreak in Uganda is the fifth outbreak of EVD caused by Sudan virus in Uganda since 2000. The current outbreak is in the same area as Uganda's most recent EVD outbreak caused by Sudan virus, which occurred in 2012. During that outbreak, limited secondary transmission was reported, and the outbreak was effectively contained.

For More Information

General Ebola Information

- General Resources for Ebola Virus Disease <https://www.cdc.gov/vhf/ebola/resources/index.html>

Clinician Resources

- Ebola Virus Disease Information for Clinicians in U.S. Healthcare Settings <https://www.cdc.gov/vhf/ebola/clinicians/evd/clinicians.html>
- Screening Patients for Ebola Virus Disease <https://www.cdc.gov/vhf/ebola/clinicians/evaluating-patients/index.html>
- CDC - Malaria - Guidance for Malaria Diagnosis in Patients Suspected of Ebola Infection in the United States https://www.cdc.gov/malaria/new_info/2014/malaria_ebolavirus.html

- Considerations for Discharging People Under Investigation (PUIs) for Ebola Virus Disease
<https://www.cdc.gov/vhf/ebola/clinicians/evaluating-patients/discharging.html>

Infection Prevention Resources

- Interim Guidance for U.S. Hospital Preparedness for Patients Under Investigation (PUIs) or with Confirmed Ebola Virus Disease
<https://www.cdc.gov/vhf/ebola/healthcare-us/preparing/hospitals.html>
- Infection Prevention and Control Recommendations for Hospitalized Patients Under Investigation (PUIs) for Ebola Virus Disease (EVD) in U.S. Hospitals
<https://www.cdc.gov/vhf/ebola/clinicians/evd/infection-control.html>
- Personal Protective Equipment (PPE) | Public Health Planners | Ebola (Ebola Virus Disease) | CDC Cleaning and disinfecting
<https://www.cdc.gov/vhf/ebola/healthcare-us/ppe/index.html>
- Interim Guidance for Environmental Infection Control in Hospitals for Ebola Virus
<https://www.cdc.gov/vhf/ebola/clinicians/cleaning/hospitals.html>
- Guidance for U.S. Laboratories for Managing and Testing Routine Clinical Specimens When There is a Concern about Ebola Virus Disease | For Laboratory Personnel | Ebola (Ebola Virus Disease) | CDC
<https://www.cdc.gov/vhf/ebola/laboratory-personnel/safe-specimen-management.html>
- Procedures for Safe Handling and Management of Ebola-Associated Waste Public Health Department Resources
<https://www.cdc.gov/vhf/ebola/clinicians/cleaning/handling-waste.html>

Public Health Department Resources

- Interim Guidance on Risk Assessment and Management of Persons with Potential Ebola Virus Exposure | Quarantine | CDC
<https://www.cdc.gov/quarantine/interim-guidance-risk-assessment-ebola.html>
- Ebola: After You Travel | Quarantine | CDC
<https://www.cdc.gov/quarantine/ebola/after-you-travel.html>

The Centers for Disease Control and Prevention (CDC) protects people's health and safety by preventing and controlling diseases and injuries; enhances health decisions by providing credible information on critical health issues; and promotes healthy living through strong partnerships with local, national, and international organizations.

DEPARTMENT OF HEALTH AND HUMAN SERVICES

HAN Message Types

- **Health Alert:** Conveys the highest level of importance; warrants immediate action or attention.
- **Health Advisory:** Provides important information for a specific incident or situation; may not require immediate action.
- **Health Update:** Provides updated information regarding an incident or situation; unlikely to require immediate action.
- **Info Service:** Provides general information that is not necessarily considered to be of an emergent nature.