Category 1: Immediate reporting telephonically followed by written or electronic notification within 24hrs of diagnosing a case

VIRAL HAEMORRHAGIC FEVER DISEASES: EBOLA

Why is surveillance necessary?	Who must notify and when?	Suspected case definition	Probable case definition	Confirmed case definition
"Ebola" is a hemorrhagic fever caused by one of four virus species of the Ebola virus genus within the family of *Filoviridae*, known to cause human illness, respectively named, (Zaire) Ebola virus disease (EVD) Sudan virus disease (SVD), Bundibugyo virus disease (BVD) and Taï Forest virus Disease. Patients with ebola experience a severe febrile illness characterized by sudden onset of fever, and non-specific symptoms with rapid progression to bleeding and death. Ebola outbreaks in Central and West Africa have occurred since 1976 and majority are caused by the (Zaire) Ebola virus, followed by the Sudan Ebola virus, and only very few outbreaks by the other ebola viruses species. The largest EVD outbreak took place in West Africa from December 2013 to	The health care practitioner who suspects EVD or SVD and requests laboratory testing should notify the case. The laboratory that diagnoses the condition should also notify the case	A person with sudden onset of fever > 38.5°C with at least three of the following signs and symptoms: • headaches, lethargy, myalgia, or • abdominal pain, vomiting, anorexia, loss of appetite, diarrhoea, difficulty in swallowing, hiccups, bloody diarrhoea, or • bleeding from gums, bleeding into skin (purpura), bleeding into eyes and urine, or • any sudden inexplicable death. **AND** a likely epidemiological exposure including any of • contact with a suspected, probable or confirmed Ebola case, or • residence in—or travel to—an outbreak area (as reported on www.nicd.ac.za) within 21 days of illness onset, or • contact with dead or sick animal (bats, rodents, or primates) or • laboratory exposure, or	Any deceased suspected case (where it has not been possible to collect specimens for laboratory confirmation) having an epidemiological link.	Laboratory evidence of Ebola virus infection as evidenced by any of the following • PCR positive and virus isolation from the patient's first (single) specimen • PCR positive and IgM positive result on patient's first (single) specimen; or • PCR positive on two separate specimens from the same patient collected at least one day apart, or • PCR positive but IgM/IgG negative result in patient's first specimen and PCR negative but IgM/IgG positive result in patient's second specimen collected at least one day apart, or • Increase in IgM/IgG titres between acute and convalescent specimens, or • is a suspected case with laboratory suggestive evidence of Ebola virus infection by (IgM positive result on patient's first specimen).

June 2016, predominantly in Sierra Leone, Liberia and Guinea and was declared a PHEIC by the WHO. A single imported case of Ebola was documented in 1996 in a Gabonese doctor, who transmitted the disease to the South African nurse who was caring for him. Ebola is notifiable because it is easily transmissible from person to person and has outbreak potential. After notification of a case, public health officials will request all contacts of the case to monitor themselves for fever and compatible symptoms for a 21-day period following exposure.		• exposure to semen from a confirmed acute or convalescent case of EVD or SVD within the 10 weeks of that person's onset of symptoms).		

Additional notes

Clinicians suspecting Ebola virus disease should contact the NICD 24-hour hotline (082-883-9920) for assistance with the diagnosis. Clinicians who submit specimens for EVD testing should also complete the case investigation form that is found at https://www.nicd.ac.za/diseases-a-z-index/viral-haemorrhagic-fever-vhf/

Additional resources

The following resources are available at https://www.nicd.ac.za/diseases-a-z-index/ebola-virus-disease/: a frequently-asked questions (FAQ) document, Guidelines for the laboratory investigation of EVD, and the National Guidelines for Recognition and Management of EVD. Clinicians who submit specimens for EVD testing should also complete the case investigation form that is found at https://www.nicd.ac.za/diseases-a-z-index/viral-haemorrhagic-fever-vhf/

NATIONAL INSTITUTE FOR COMMUNICABLE DISEASES
Division of the National Health Laboratory Service

NOTIFIABLE MEDICAL CONDITIONS (NMC) CASE DEFINITIONS FLIPCHART

VIRAL HAEMORRHAGIC FEVER DISEASES: Hantavirus Pulmonary Syndrome (HPS) or, Haemorrhagic Fever with Renal Syndrome (HFRS)

Why is surveillance necessary?	Who must notify and when?	Suspected case definition	Probable case definition	Confirmed case definition
Hantavirus (Cardio) Pulmonary Syndrome (H(C)PS) or, Haemorrhagic Fever with Renal Syndrome (HFRS), is a hemorraghic fever caused by hantaviruses. Transmission of the viruses to humans occurs through inhalation of the aerosolized form, which is present in the urine, saliva, and faeces of infected rodents (several species of rats, mice), shrews or moles, or via touching contaminated fomites and thereafter mouth or nose, or consuming contaminated food. Only rare cases of person-to-person transmission have been documented. H(C)PS is prevalent in the Americas, whereas HFRS or nephropathia epidemica (NE) is present at the Old World. The morbidity of HFRS ranges from 1-12%, but is 40-50% for H(C)PS. Case-fatality rate has reached 12% (HFRS) and 60% (HPS) in some outbreaks. No cases of H(C)PS or, HFRS, have been diagnosed until present in South Africa nor elsewhere in Africa due to lack of detection of hantavirus	The health care practitioner who suspects H(C)PS or, HFRS and requests laboratory testing should notify the case. The laboratory that diagnoses the condition should also notify the case	HFRS or H(C) PS: A person with acute onset of fever >38.5°C, and at least three of the following signs and symptoms: • headache • muscle aches, especially in the large muscle groups – thighs, hips, back and sometimes schoulders • gastrointestinal symptoms (nausea, diarrhoea, abdominal pain, vomiting) HFRS: • thrombocytopenia, • neutrophilic leukocytosis • haemoconcentation • increase in white blood cell consumption = increase in production • circulating immunoblasts H(C) PS: • Acute Respiratroy Distress Syndrome (ARDS) • Coughing • Shortness of breath • Pulmonary oedema	Any deceased suspected case (where it has not been possible to collect specimens for laboratory confirmation) that had unexplained pulmonary oedema or respiratory illness	A confirmed case is a person with laboratory evidence of H(C)PS or, HFRS virus infection as evidenced by • PCR positive and virus isolation from the patient's first (single) specimen, or • PCR positive and IgM positive result on patient's first (single) specimen, or • PCR positive on two separate specimens from the same patient collected at least one day apart, or • PCR positive but IgM/IgG negative result in patient's first specimen and PCR negative but IgM/IgG positive result in patient's second specimen collected at least one day apart, or • Increase in IgM/IgG titres between acute and convalescent specimens, or • is a suspected case with IgM positive result on patient's first specimen.

RNA. Nevertheless, serological evidence has been demonstrated for murinae, shrews and bats in West and other part of Africa. Serological evidence has also been demonstrated in human surveys and febrile patients.		AND a likely epidemiological exposure to rodents, shrews, bats within the past 21 days.		

Additional notes

Clinicians suspecting Hantavirus Pulmonary Syndrome or, Haemorrhagic Fever with Renal Syndrome should contact the NICD 24-hour hotline (082-883-9920) for assistance with the diagnosis. Clinicians who submit specimens for H(C)PS or, HFRS testing should also complete the case investigation form that is found at https://www.nicd.ac.za/diseases-a-z-index/viral-haemorrhagic-fever-vhf/

Additional resources

Additional resources are available at https://www.nicd.ac.za/diseases-a-z-index/viral-haemorrhagic-fever-vhf/