



Bundibugyo viral disease (BVD)



Case definitions and early detection

Rihette Lodewyk, IPC manager, FS Province

Epidemiology BVD

- Bundibugyo virus disease (BVD) is a severe, often fatal form of Ebola disease caused by the Bundibugyo virus, one of the *Orthoebolavirus* species.
- Zoonotic disease, with fruit bats suspected - natural reservoir.
- **Human infection occurs through close contact with the blood or secretions of infected wildlife, such as bats or non-human primates, and subsequently spreads from person to person through direct contact with the blood, secretions, organs, or other bodily fluids of infected individuals or contaminated surfaces or items.**
- Transmission is particularly amplified in health-care settings when infection prevention and control (IPC) measures are inadequate, and during unsafe burial practices involving direct contact with the deceased.

Case definition NB!



health

Department of
Health
FREE STATE PROVINCE

- **Acute onset fever ($\geq 38^{\circ}\text{C}$), nausea, vomiting, diarrhoea, headache, muscle pain, abdominal pain, or unexplained haemorrhage and**
- **Travel to DRC/Uganda outbreak areas in 21 days prior to onset AND direct contact with suspected/confirmed Bundibugyo virus disease cases in 21 days prior OR unexplained multisystem illness that is malaria negative**

Strategic Risk Statement

The most likely scenario is:

An imported VHF case presenting initially as malaria-like illness, sepsis, influenza-like illness, or unexplained fever in a healthcare facility. Early recognition and isolation will determine whether transmission occurs.

Differentiating BVD from other endemic febrile illnesses such as malaria is challenging without laboratory **confirmation using PCR or antigen/antibody-based assays.**

FS VHF Ebola readiness plan

Clinical diagnosis of VHF

Signs and symptoms of VHF

- Early signs and symptoms are non-specific, and patients may present with fever, headache, conjunctivitis, pharyngitis, myalgia (especially lower back pain), vomiting, abdominal pain and diarrhoea.
- Recognition of the syndrome is easier once patients develop a petechial rash or ecchymoses, and other haemorrhagic signs such as epistaxis, haematemesis and melaena. There may be rapid progression to multi-organ failure, altered mental state, jaundice and shock.

Suspected case definition

- A person with sudden onset of fever $> 38.5^{\circ}\text{C}$ 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
 - exposure to semen from a confirmed acute or convalescent case of EVD within the 10 weeks of that person's onset of symptoms.

Confirmed case Definition

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).

Probable case definition



Any deceased suspected case (where it has not been possible to collect specimens for laboratory confirmation) having an epidemiological link.

NICD contacts

- Medical/clinical related queries: NICD Hotline +27 800 212 552 (for use by healthcare professionals only)
- All media requests: media@nicd.ac.za
- All outbreak response related requests: Outbreak Response Unit, outbreak@nicd.ac.za

References

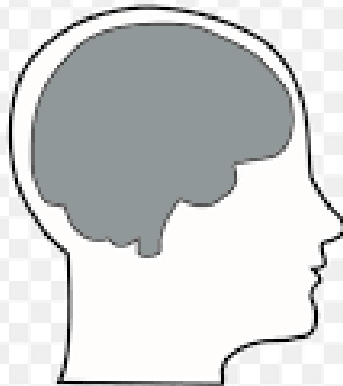
- www.nicd.ac.za
- www.who.int
- FS VHF Ebola readiness plan
- National VHF guidelines
- Acknowledgements: NICD, WHO, FS Public Health Specialist and FDOH outbreak response team



health

Department of
Health
FREE STATE PROVINCE

SAFETY FIRST



**Safety
Starts
Here**

Think Safe...
Work Safe...
Be Safe

THANK YOU