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

Bundibugyo Virus Disease Outbreak

Case Management, Laboratory, Notification, Contact Management

Risk Communication and Community Engagement Webinar

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Objectives

1. The virology and epidemiology of Bundibugyo
2. Clinical presentation
3. Case definitions
4. Notification
5. Clinical management
6. Management of contacts

Bundibugyo Virus Disease

Family: Filoviridae

Genus: *Orthoebolavirus*

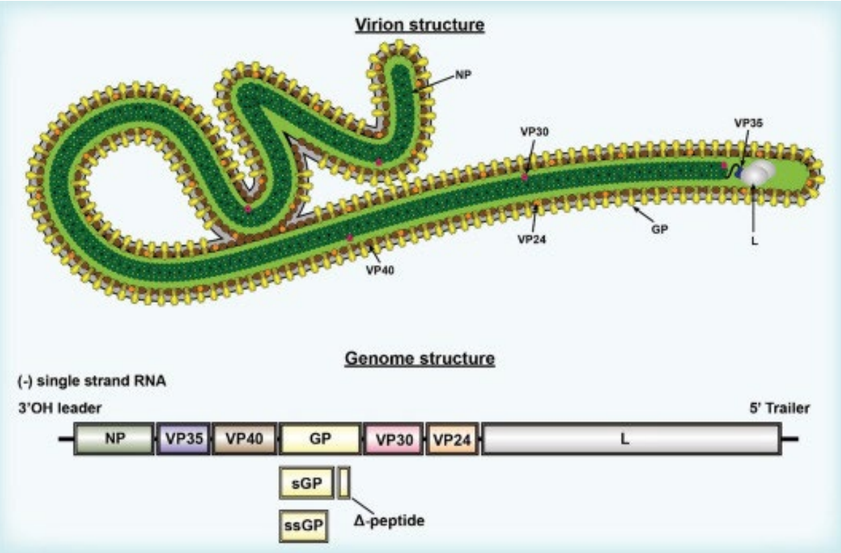
Species: Bundibugyo Virus (BDBV)

Genome: Filamentous enveloped Single-stranded, negative-sense RNA virus.

There are **four orthoebolaviruses** that can cause disease in humans:

- Bundibugyo virus (*Orthoebolavirus bundibugyoense*)
- Ebola virus (*Orthoebolavirus zairense*)
- Sudan virus (*Orthoebolavirus sudanense*)
- Taï Forest virus (*Orthoebolavirus taiense*)

Not endemic in South Africa



Filamentous: The virions are typically long, thread-like structures that can be tubular, branched, or folded into "6", "U", or circular shapes

Enveloped: Embedded in the envelope are spike-like glycoprotein projections- crucial for attaching to host cells and mediating viral entry

NICD, WHO, Science Direct

Modes of Transmission

Natural Reservoir: Bats= suspected natural reservoir; can also affect wildlife incl. non-human primates

Primary spread (zoonotic transmission): Contact with blood, secretions, tissues or organs of infected animals.

Secondary spread (direct, person/surface-to-person contact with:

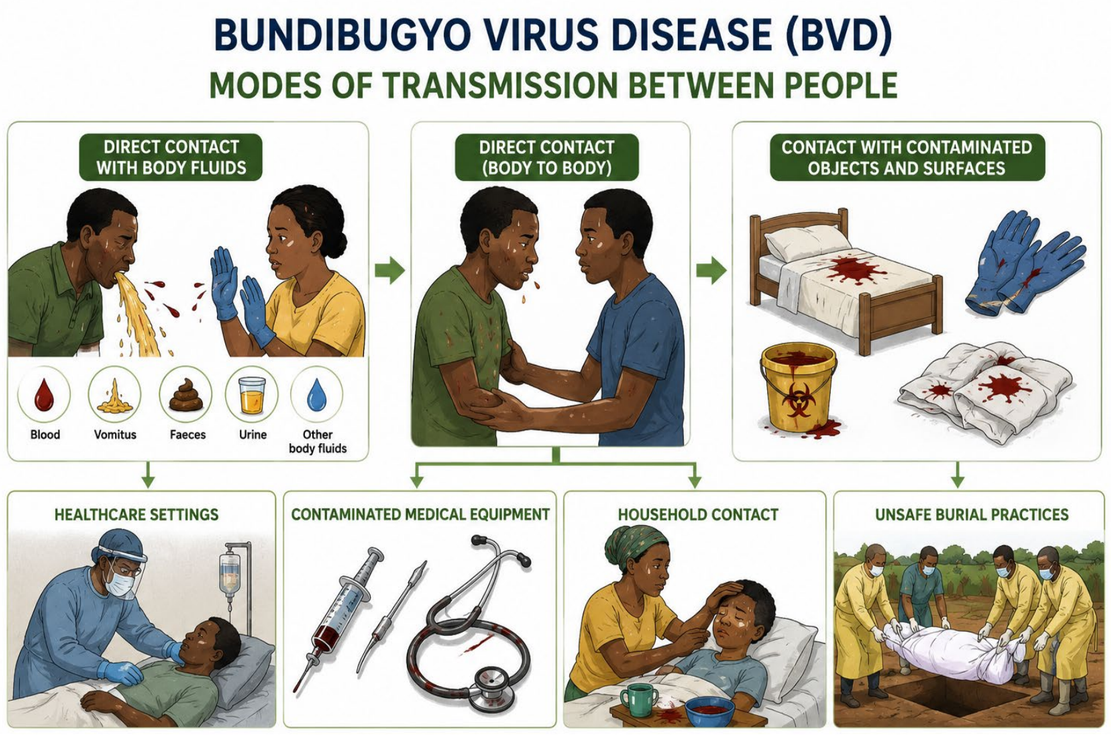
- Contact with blood or body fluids of an infected person.

(infectious body fluids may include vomitus, diarrhoea, urine, saliva, sweat, breast milk and semen)

- Transmission may also occur through contact with contaminated items e.g clothing, bedding, medical equipment or needles.

(Virus can survive several hours on dry surfaces and persist longer in blood or body fluids. Inactivated by heat, sunlight, chlorine solutions and disinfectants)

- Traditional burial practices involving direct contact with the body of a deceased person can also spread infection



NICD, WHO, ChatGPT (image generated using prompt)

Bundibugyo Virus Clinical Picture

INCUBATION PERIOD

2- 21 days

Symptoms usually appear 8 – 10 days

EARLY SYMPTOMS

3-5 days

Fever, weakness, fatigue, muscle pain, headache and sore throat

LATER SYMPTOMS

1-2 weeks

Vomiting, diarrhoea, abdominal pain and rash. Some patients may experience internal or external bleeding

SEVERE ILLNESS

Severe illness can result in dehydration, shock, multi-organ failure and death.

NICD, WHO, CDC

Bundibugyo Virus– Phases of illness

1 Early / Prodromal phase

3 - 5 days

- Sudden onset of fever
- Fatigue
- Headache
- Myalgia
- Sore throat
- Malaise

2 Gastrointestinal phase

Several days after symptom onset, 4- 10 days

- Vomiting
- Diarrhoea
- Abdominal pain
- Dehydration
- Weakness

3 Severe Disease

2 weeks +

- Organ dysfunction
- Hypotension
- Shock
- Haemorrhagic manifestations
- Altered mental status

NICD, WHO

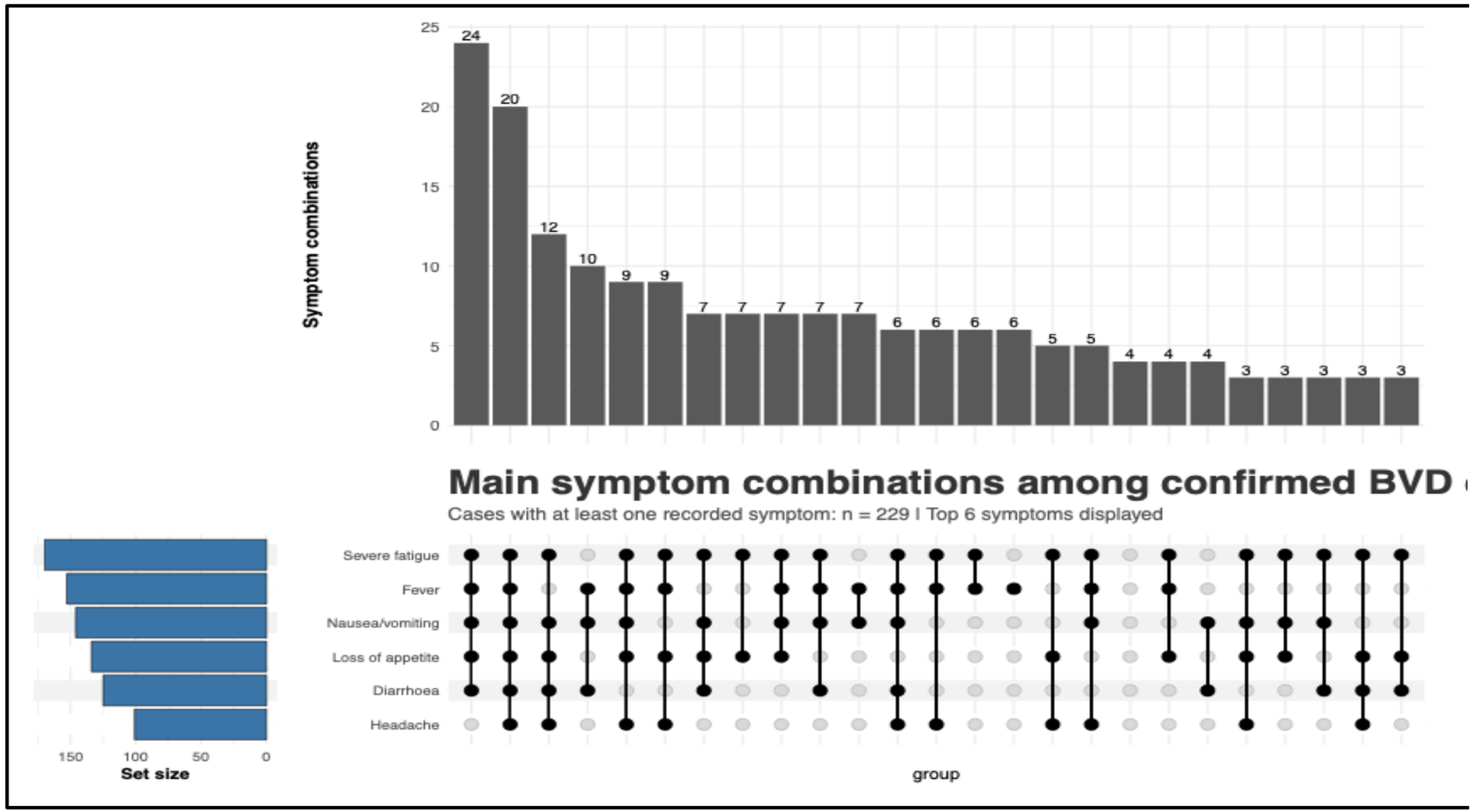
Bundibugyo Virus Disease – Symptoms during this outbreak

Most common combinations

- Severe fatigue
- Fever
- Nausea/vomiting
- Loss of appetite
- Diarrhoea

- (Headache)

Appear repeatedly in the leading symptom profiles.



- **Symptoms cluster strongly:** confirmed cases often present with multiple symptoms rather than a single isolated symptom.

- Source: WHO AFRO case-based data from DRC (DHIS-2) as of 7 June 2026

Differential diagnosis

Condition	Features that may distinguish from BDBV
Malaria	Common in endemic regions; fever with chills and sweats; positive malaria test; may coexist with BVD
Typhoid Fever	Prolonged fever, abdominal pain, diarrhoea or constipation; positive blood cultures
Marburg Virus Disease	Clinically similar viral haemorrhagic fever; requires laboratory confirmation to distinguish
Sudan Virus Disease	Ebola-like illness with haemorrhagic manifestations; differentiation requires PCR testing
Crimean-Congo Haemorrhagic Fever (CCHF)	Tick exposure or livestock contact; severe haemorrhage and thrombocytopenia common
Shigellosis	Severe diarrhoeal illness with abdominal cramps and bloody stool; less likely to cause haemorrhagic shock
Severe Bacterial Sepsis	Identifiable bacterial source; hypotension and organ dysfunction may occur; positive cultures possible

Travel History alert

What is the most common endemic condition for that area.

E.g.: Malaria

CDC, CEPI, WHO

BDV is not endemic in South Africa. No cases reported in the country to date

Case Definition: Bundibugyo virus disease

SUSPECTED

Any person presenting with **one or more of the following symptoms**: an acute onset of **fever (≥38°C), nausea, vomiting, diarrhoea, severe headache, muscle pain, abdominal pain, or unexplained haemorrhage**;

who visited or resided in **DRC or Uganda**, in the outbreak areas determined, in **the 21 days prior** to onset of illness **and**

had **direct contact with or cared for suspected/confirmed BVD** cases in the 21 days prior to onset of illness

or has unexplained multisystem illness that is malaria-negative.

Case Definition: Bundibugyo virus disease

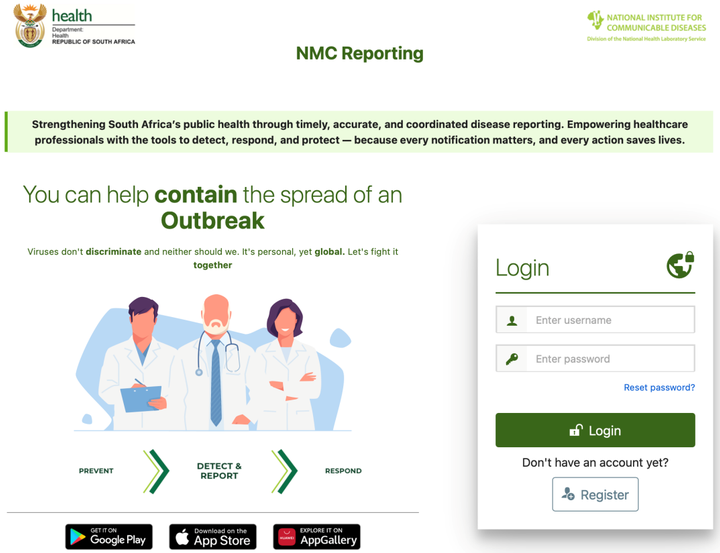
PROBABLE	Any **deceased suspected case** (where it has **not been possible to collect specimens for laboratory confirmation**) having an **epidemiological link.**
CONFIRMED	**Laboratory evidence of Ebola virus infection:** PCR or serology

Notification – Category 1 NMC

Notify within 24 hours of clinical suspicion – check case definitions

NOTIFY WITHIN 24 HOURS

Bundibugyo is a Category 1 notifiable medical condition – notified as Viral Haemorrhagic Fever (VHF)



1

Notify on the NMC Surveillance System

Via the NMC mobile app/web portal. Notify under Viral Haemorrhagic Fever (Category 1).

2

Phone the NICD Hotline

0800 212 552 (24/7).

Discuss suspected case

3

Notify Provincial CDC and Port Health

Provincial Communicable Disease Coordinator must be informed. Port Health is notified for travel- or conveyance-linked exposures.

4

Initiate IPC and isolation

Do not wait for confirmation to start isolation, contact identification and supportive care.

VHF Contact Classification

CASE CONTACT: A person who has been exposed to an infected person or his/her secretions, excretions, blood or other tissues in such a way as to be at risk of acquiring infection..

SOURCE CONTACT: A person who has been exposed to the same external (non-human) source/s of infection as an infected person.

EXPOSURE:
Association with an infected person at any time from onset of fever until 3 weeks later in any of the following ways:

- Sharing the same residence.
- Face-to-face contact (≤1 metre).
- Mucous membrane contact or broken skin (incl penetrating injuries e.g needlestick) with the patient's secretions, excretions, blood or other tissues.

VHF Low, Moderate, High-Risk Contact Classification

HIGH-RISK CONTACTS

have had what is judged to be definite exposure to VHF infection, e.g. needle-stick with blood from a confirmed case of VHF or similar exposure to animal tissues in a common-source outbreak.

MODERATE-RISK CONTACTS

have had close and prolonged contact with a VHF patient or other source of infection.

Incl. intimate friends of a VHF patient, relatives and health care workers.

LOW-RISK CONTACTS

have had slight or indirect contact with a VHF patient or other source of infection on a single or few occasions.

Contact Monitoring

21
DAYS
from last known exposure

Monitoring requirements

- Record temperatures twice daily for 3 weeks (21 days) from the last date of contact with a VHF patient or fomite

- Monitor for signs and symptoms of illness.

- Persons with ongoing exposure to infection, such as health care workers engaged in nursing of VHF patients:
  - remain under observation while exposure continues to occur
  - kept under observation for the requisite 21 day period after the last date of potential exposure to infection.

Isolation and Quarantine

HIGH-RISK CONTACTS

- Quarantine facility or own home under strict active observation.
- Confinement to a quarantine facility should be applied selectively to those considered to be in imminent danger of developing infection,
  - medical staff who have had a needle-stick injury with blood known to be infected
  - those who have developed non-specific illness, e.g. fever and headache.

MODERATE to LOW-RISK CONTACTS

- Low to moderate risk contacts of including health care workers may be:
  - kept under active observation in their normal environment and employment
  - not leave the town/district until the observation period has ended

Counselling of contacts and health care workers should be considered to counter stress during outbreaks.

Isolation:

Any contact who develops fever (temperature of 38°C or over) or signs and symptoms suggestive of VHF, must be placed in isolation and treated as a suspected case.

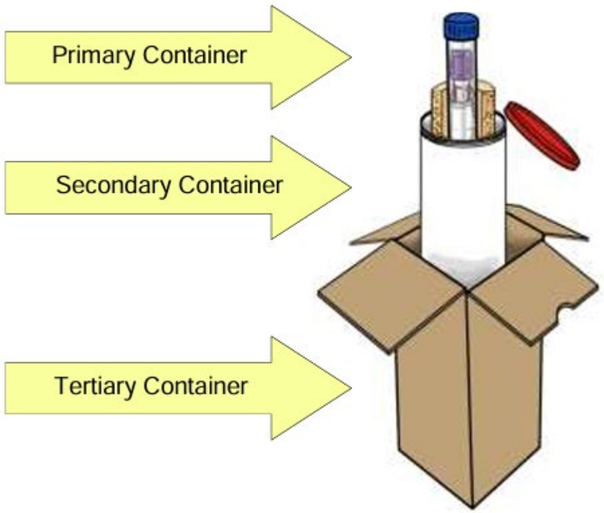
Diagnosis

Diagnosis is based on:

- Clinical suspicion – history and examination findings
- Exposure and travel history- exposure to confirmed/probable case, travel to endemic/outbreak area.
- Laboratory testing – confirmatory diagnostics performed at NICD

Diagnostic testing at NICD:

- Serology – fluorescent antibody test (IgG, IgM)
- Serology: ELISA (IgG, IgM)
- PCR – RT-PCR for Ebola virus only



Laboratory Testing for BVD

Complete the Case Investigation Form (CIF)

Where to find the CIF:

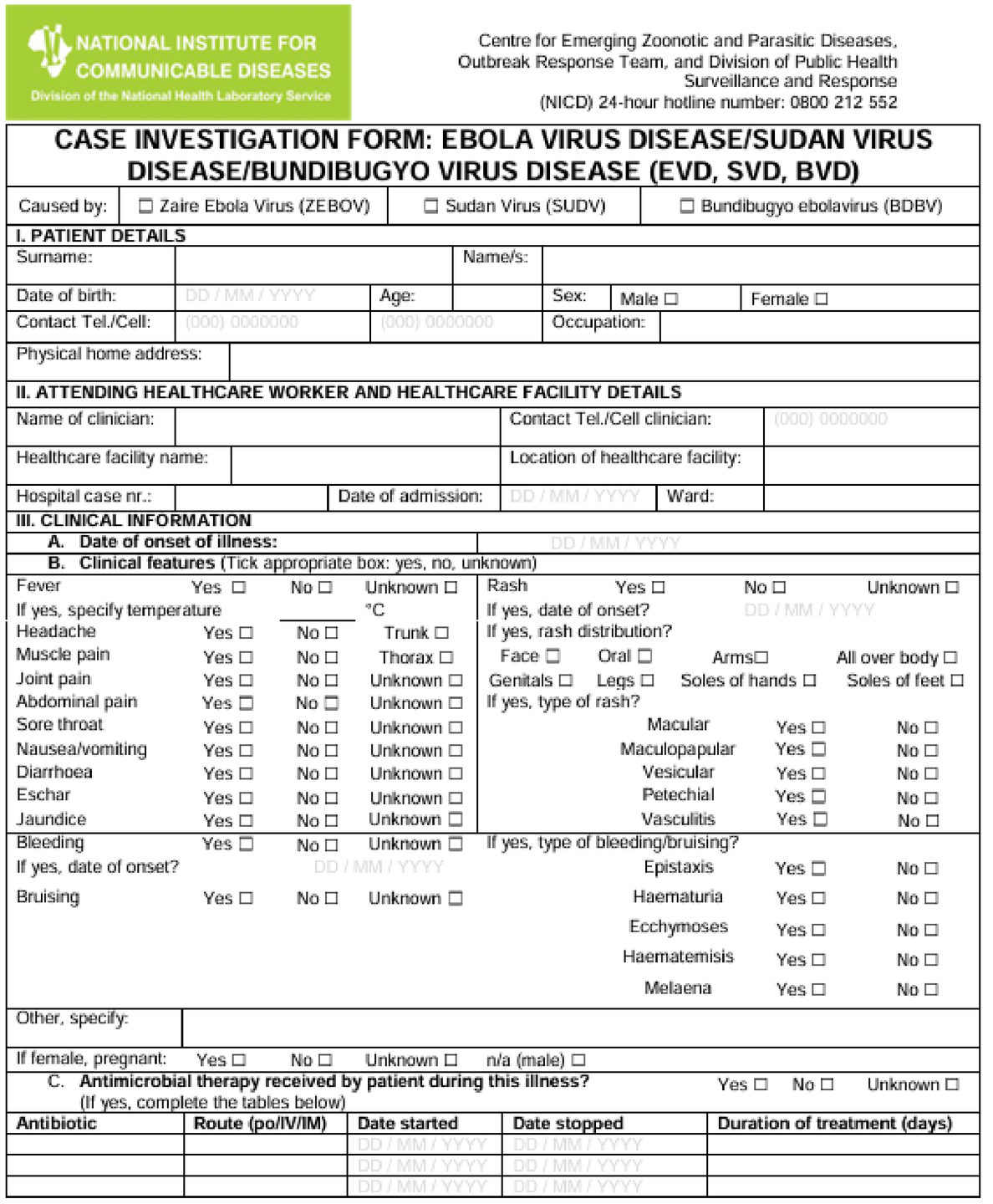
The CIF is available on www.nicd.ac.za under the Disease Index (letter B – BVD)

How to complete it:

- Complete the CIF electronically and print, OR print and complete in handwriting
- Capture all symptom, exposure, travel and pathology fields
- Confirm patient identifiers match the specimen labels

What to do with it:

- Ensure the completed CIF accompanies the specimens
- Email the completed form to **cezd@nicd.ac.za** in parallel with dispatch
- Phone the NICD Hotline (0800 212 552) if further guidance needed



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

Centre for Emerging Zoonotic and Parasitic Diseases, Outbreak Response Team, and Division of Public Health Surveillance and Response
(NICD) 24-hour hotline number: 0800 212 552

CASE INVESTIGATION FORM: EBOLA VIRUS DISEASE/SUDAN VIRUS DISEASE/BUNDIBUGYO VIRUS DISEASE (EVD, SVD, BVD)

Caused by: ☐ Zaire Ebola Virus (ZEBOV) ☐ Sudan Virus (SUDV) ☐ Bundibugyo ebolavirus (BDBV)

I. PATIENT DETAILS

Surname:		Name/s:				
Date of birth:	DD / MM / YYYY	Age:		Sex:	Male ☐	Female ☐
Contact Tel./Cell:	(000) 0000000	(000) 0000000		Occupation:		
Physical home address:						

II. ATTENDING HEALTHCARE WORKER AND HEALTHCARE FACILITY DETAILS

Name of clinician:		Contact Tel./Cell clinician:	(000) 0000000
Healthcare facility name:		Location of healthcare facility:	
Hospital case nr.:		Date of admission:	DD / MM / YYYY
Ward:			

III. CLINICAL INFORMATION

A. **Date of onset of illness:** DD / MM / YYYY

B. **Clinical features** (Tick appropriate box: yes, no, unknown)

Fever	Yes ☐	No ☐	Unknown ☐	Rash	Yes ☐	No ☐	Unknown ☐
If yes, specify temperature			°C	If yes, date of onset?	DD / MM / YYYY		
Headache	Yes ☐	No ☐	Trunk ☐	If yes, rash distribution?			
Muscle pain	Yes ☐	No ☐	Thorax ☐	Face ☐	Oral ☐	Arms☐	All over body ☐
Joint pain	Yes ☐	No ☐	Unknown ☐	Genitals ☐	Legs ☐	Soles of hands ☐	Soles of feet ☐
Abdominal pain	Yes ☐	No ☐	Unknown ☐	If yes, type of rash?			
Sore throat	Yes ☐	No ☐	Unknown ☐	Macular	Yes ☐	No ☐	
Nausea/vomiting	Yes ☐	No ☐	Unknown ☐	Maculopapular	Yes ☐	No ☐	
Diarrhoea	Yes ☐	No ☐	Unknown ☐	Vesicular	Yes ☐	No ☐	
Eschar	Yes ☐	No ☐	Unknown ☐	Petechial	Yes ☐	No ☐	
Jaundice	Yes ☐	No ☐	Unknown ☐	Vasculitis	Yes ☐	No ☐	
Bleeding	Yes ☐	No ☐	Unknown ☐	If yes, type of bleeding/bruising?			
If yes, date of onset?	DD / MM / YYYY			Epistaxis	Yes ☐	No ☐	
Bruising	Yes ☐	No ☐	Unknown ☐	Haematuria	Yes ☐	No ☐	
				Ecchymoses	Yes ☐	No ☐	
				Haematemisis	Yes ☐	No ☐	
				Melaena	Yes ☐	No ☐	

Other, specify:

If female, pregnant: Yes ☐ No ☐ Unknown ☐ n/a (male) ☐

C. **Antimicrobial therapy received by patient during this illness?** Yes ☐ No ☐ Unknown ☐
(If yes, complete the tables below)

Antibiotic	Route (po/IV/IM)	Date started	Date stopped	Duration of treatment (days)
		DD / MM / YYYY	DD / MM / YYYY	
		DD / MM / YYYY	DD / MM / YYYY	
		DD / MM / YYYY	DD / MM / YYYY	

Laboratory Investigation

NB: Alert local lab

Recommended specimens

- EDTA (whole blood- purple top tube)
- Serum (clotted blood- yellow/red top tube)
- Submit both
- TAT 24-48 hours

Additional investigations (differentials)

- Coagulation profile (INR,PTT, D-dimers)
- FBC, U&E, LFTs, blood gas
- Blood smears (parasites/bacteria)
- Blood cultures(septicemia)

Laboratory biosafety

- BSL-4 universal precautions for routine handling
- Limit unnecessary specimen manipulation
- Notify the receiving laboratory before arrival (incl. local facility lab)
- Follow institutional biosafety guidance
- Keep specimens cold during transport

WHERE TO SEND: NICD Centre for Emerging Zoonotic and Parasitic Diseases (CEZPD), Special Viral Pathogens Laboratory
Attention: Dr Jackie Weyer
Inform the receiving laboratory **BEFORE** specimen arrival

SPECIMEN TRANSPORT – CATEGORY A:
Triple packaging required
UN2814 Category A (IATA PI620)
Clearly label as suspected VHF material
Accompany with completed laboratory request forms AND case investigation forms
Chain-of-custody documentation is non-negotiable

Management

Bundibugyo Treatment

Supportive management (gold standard):

- Hospitalization and strict isolation protocols.
- Monitoring of vital signs
- Fluid management
- Haemodynamic support
- Blood and blood products
- Intensive care management

Prevention:

- Ebola vaccine for Zaire strain NOT Bundibugyo

- No specific antiviral
- No Bundibugyo vaccine
- No chemoprophylaxis

NB: OPTIMISED SUPPORTIVE CARE

PARTNERS Clinical Trial 2 July 2026

Resources

- BUNDIBUGYO VIRUS DISEASE FAQ DOCUMENT (MAY 2026)
- LABORATORY GUIDANCE FOR BUNDIBUGYO VIRUS DISEASE (MAY 2026)
- BUNDIBUDYO VIRUS DISEASE PREPAREDNESS DOCUMENT (MAY 2026)
- CASE INVESTIGATION FORM FOR BUNDIBUGYO VIRUS DISEASE (MAY 2026)
- BUNDIBUDYO VIRUS DISEASE CASE DEFINITION FORM (2022)

Bundibugyo virus disease updates

Bundibugyo Virus Disease Outbreak in the Democratic Republic of the Congo and Uganda

As of 9 June 2026, health authorities had reported 635 laboratory-confirmed cases (including 127 deaths), 119 suspected cases and 30 recovered cases in three provinces of Ituri, North Kivu and South Kivu in north-eastern DRC. In Ituri (600 confirmed cases), half of the health zones (18 out of 36) are affected, including Bunia, Rwampara, Mongbwalu, Nyankunde and Nizi. As of 10 June 2026, Uganda has confirmed 19 laboratory-confirmed cases (including two deaths) in Kampala and Wakiso; 14 imported cases linked to travel from DRC and 5 local cases. WHO has noted significant uncertainty regarding the true extent of transmission, with reports of community deaths, infections among healthcare workers, and possible undetected spread within affected areas. Unlike outbreaks caused by Zaire ebolavirus, there are currently no approved vaccines or specific therapeutics for Bundibugyo virus disease.

INDICATOR	DEMOCRATIC REPUBLIC OF CONGO (9 JUNE 2026)	UGANDA (10 JUNE 2026)	TOTAL
Suspected Cases	119	–	119
Confirmed Cases	635	19	654
Confirmed Deaths	127	2	129
Recovered Cases	30	5	35
Case Fatality Rate	20.0%	10.5%	19.7%

Data from Centre des opérations d'urgences de santé publique (COUSP-DRC) and Uganda Ministry of Health.

Latest News

Situational Update On The Ebola Disease Outbreak Caused By Bundibugyo Virus, Democratic Republic Of The Congo And Uganda

June 5, 2026

Acknowledgements

1. Division for Public Health Surveillance and Response (DPHSR)
2. Centre for Emerging Zoonotic and Parasitic Diseases (CEZPD)

Thank you

NICD Healthcare Worker Hotline: 0800 212 552 (Health workers only)
Outbreak Response Unit Email: outbreak@nicd.ac.za