

14 August 2019

Outbreak Response Unit, Division of Public Health Surveillance and Response
National Institute for Communicable Diseases (NICD)
24-hour hotline number: 082-883-9920

The International Health Regulations Emergency Committee declared the current outbreak of Ebola virus disease (EVD) in the Democratic Republic of Congo as a Public Health Emergency of International Concern (PHEIC) on the 17th of July 2019. A total of 2763 EVD cases have been reported since the 1st of August 2018; with 2669 confirmed cases and 94 probable cases, of which 1849 cases died (overall case fatality ratio 67%). The outbreak has been reported from the Northern Kivu and Ituri Provinces, with three exported cases detected in Uganda. Both adults and children have been affected, with 507 children reported to have died of the virus to date. There have been 149 cases (5% of all confirmed and probable cases) reported in health workers. As at 14th of August there are no confirmed or suspected cases of EVD in South Africa and there is a low risk that EVD may be exported to South Africa.

Despite the low risk of importations to South Africa, healthcare workers **countrywide** should be on alert for suspected EVD cases. All Health facilities must be equipped to identify and effectively manage the first case.

How is the Ebola virus transmitted?

Human-to-human transmission of the virus occurs following contact with blood or other infectious bodily fluids (may include stool, urine, saliva and semen) of an infected person through broken skin or mucous membranes including the nose, eyes and mouth of a contact. Infection can also occur following direct contact with environments that are contaminated with an Ebola patient's blood or body fluids, such as soiled clothing, bed linen, or used needles. Burial ceremonies in which mourners wash the body of the deceased person can spread infection. Ebola virus *is not spread* in the air or in water, nor through being in the same room as an infected person where contact detailed above has not taken place. The virus may be aerosolized in the hospital setting through suctioning or inserting and removal of tubes.

Identifying a possible Ebola case:

An accurate travel and occupational history is key to identifying potential cases:

- Travel history: persons may have travelled to affected outbreak areas for family funerals or occupational reasons.
- Occupation as a healthcare worker (HCW) may increase the risk of EVD exposure. There must be a high index of suspicion when a HCW develops unexplained fever, fatigue and GIT symptoms, even amongst HCWs who have been vaccinated against EVD

EVD case definitions:

A **suspected case** of EVD:

Any person presenting with one or more of the following symptoms: an acute onset of **fever ($\geq 38^{\circ}\text{C}$)**, **nausea**, **vomiting**, **diarrhoea**, **severe headache**, **muscle pain**, **abdominal pain**, or **unexplained haemorrhage** **AND** who has **visited or been resident in the outbreak areas** (Northern Kivu, Ituri) of the Democratic Republic of Congo, in **the 21 days prior to onset** of illness **AND had direct contact** with or **cared for** suspected/confirmed EVD cases in the 21 days prior to onset of illness **OR** has unexplained multisystem illness that is **malaria-negative**.

Prevention of Ebola virus transmission:

Transmission to health-care workers has been reported when appropriate infection control measures have not been observed. Practice should include basic hand hygiene, the use of personal protective equipment (PPE) including protection of mucous membranes of eyes, nose and mouth, and covering of skin, hair and clothing (to prevent inadvertent contamination of mucous membranes after removal of PPE), safe injection practices and safe burial practices. Health-care workers caring for patients with suspected or confirmed Ebola virus should apply, in addition to standard precautions, other infection control measures to avoid any exposure to the patient's blood and body fluids and direct unprotected contact with the possibly contaminated environment.

When in close contact (within 1 metre) of the patients with Ebola, health-care workers should wear face protection (a face shield or a medical mask and goggles), a clean, non-sterile long-sleeved gown, and gloves.

In a laboratory, samples taken from suspected Ebola cases for diagnosis should be handled by trained laboratory staff and processed in suitably equipped laboratories.

14 August 2019

EBOLA PREPAREDNESS

An update for Physicians, Accident & Emergency
practitioners and Laboratorians

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Points to remember:

1. Front line health care workers must have a *high index of suspicion* for Ebola, despite low risk in SA.
2. Be aware of common symptoms which are fever, fatigue and GIT symptoms in persons with appropriate travel history, and remember *bleeding is not common!!*
3. It is important to exclude *malaria* in these cases.
4. All the HCW's must be aware of *referral pathways* for suspected cases.
5. Men who have recovered from the disease can still transmit the virus through semen up to seven weeks after recovery from illness.

Specimen collection for confirmation of EVD:

1. Detailed specimen collection and submission guidelines are available from the NICD website.
2. Please inform the NICD hotline (082-883-9920) of the intention to test for EVD
3. Submit both a clotted blood (red or yellow top tube) and EDTA treated tube (purple top tube) per patient
4. Specimens should be packaged in accordance with the guidelines for the transport of dangerous biological goods (triple packaging using absorbent material) and transported directly and urgently to:
Centre for Emerging Zoonotic and Parasitic Diseases, Special Viral Pathogens Laboratory, National Institute for Communicable Diseases (NICD) National Health Laboratory Service (NHLS), No. 1 Modderfontein Rd Sandringham, 2131
5. Ensure that completed case investigation form (available on NICD website) accompanies the specimens
6. Samples should be kept cold during transport (cold packs are sufficient).
7. The NICD offers a full repertoire of laboratory testing for EVD. Test requests need only specify for Ebola investigation. The NICD will provide appropriate testing for each case.

Management and Infection Prevention & Control

Measures for Suspected Case:

As soon as the decision is made to test for EVD albeit that the likelihood of a positive result is low, HCW should take measures to minimize exposure of medical staff, other patients and relatives.

1. Establish that the patient meets the case definition for a suspected case of EVD.
2. Immediately implement appropriate infection control procedures for a suspected case (**see NICD website**).
3. Inform the management and infection control officers at the medical facility concerned of the existence of the suspected case of EVD.
4. Notify the local and provincial communicable disease control co-ordinator (CDCC) telephonically.
5. Inform the NICD hotline (082-883-9920)
6. Manage the patient appropriately using supportive therapy including fluid management, provision of oxygen, and maintenance of blood pressure and treatment of complicating secondary infections (see NICD website). Administer such life-saving therapy as may be necessary and possible.
7. Assess the status of the patient as either low, moderate or high risk (see NICD website).
8. Safely collect specimens using procedures on the NICD website). Complete a case investigation form (CIF) (on NICD website) and submit specimens and CIF to the NICD
9. If EVD is suspected and the case definition is met, organize a transfer to an EVD designated hospital.
10. Notify the suspected case telephonically or through the NMC App – complete the Case Investigation Form - **National guidelines of Recognition and Management of Viral Haemorrhagic Fevers** (see NICD website). Submit forms to provincial CDCC.

National guidelines for the Recognition and Management of Viral Haemorrhagic Fevers and other resources are available at www.nicd.ac.za under 'Ebola' on the 'Diseases A-Z' tab