PICNet
PROVINCIAL INFECTION CONTROL NETWORK OF BRITISH COLUMBIA
A program of the Provincial Health Services Authority

BC Centre for Disease Control
Provincial Health Services Authority

Provincial Health Services Authority

Subject: Viral Hemorrhagic Fever Infection Prevention and Control Recommendations and Testing Information

Updated: June 27, 2023

This memo is intended for acute care, urgent care, community and primary care settings, and health authority infection prevention and control (IPC), public health, and workplace health and safety programs.

Background

In recent months, there have been outbreaks of viral hemorrhagic fevers (VHF) in countries outside of Canada, including outbreaks of Marburg virus disease in Equatorial Guinea and Tanzania in February and March of 2023, respectively[1], which have now been declared over. In addition, an Ebola Virus Disease (EVD) outbreak in Uganda was declared over in January of 2023[2]. These viruses belong to the *Filoviridae* family, which in the context of health care settings are mainly transmitted via contact and splashes to unprotected mucous membranes (e.g., the eyes, nose, or mouth) with blood or body fluids from an infected patient or through contaminated fomites.[3] While the risk to BC health care facilities remains low, continued vigilance for VHF and other high threat pathogens is recommended. Infection prevention and control guidance for management of cases is provided below.

Work is underway to expand British Columbia's EVD infection prevention and control (IPC) resources available through the Office of the Provincial Health Officer to include all VHF and other high-threat-pathogens. In the interim, health care providers can refer to EVD materials for VHF.

General Guidance

Clinicians must obtain a detailed travel history from patients with suspected VHF disease or other high threat pathogens, particularly those who may have been in affected areas.

- In the early stages of illness, the diagnosis may be difficult to determine as the disease can mimic other infectious diseases such as malaria, typhoid fever, or meningitis[3].

Notify Public Health, Infection Prevention and Control (IPC), and Workplace Health and Safety immediately for suspected cases of VHF.

Testing:

Ensure testing for malaria is initiated immediately for any febrile traveler who has recently arrived from a region of concern, recognizing that malaria can progress rapidly.

- BCCDC Public Health Laboratory (PHL) is able to provide preliminary testing for Sudan ebolavirus, with all samples being sent for definitive testing at the National Microbiology Laboratory (NML).
- Testing for other VHFs (e.g., Zaire ebolavirus, Marburg virus, Lassa fever virus, Crimean Congo hemorrhagic fever, Rift Valley fever) is conducted at the NML.
- BCCDC PHL is able to provide malaria testing for patients at high suspicion of Ebola virus infection.
- BCCDC PHL testing details can be found at the following: http://www.bccdc.ca/our-services/programs/elab-handbook.
- **Please note, the BCCDC Medical Microbiologist on-call must be notified of all VHF testing requests.**

Infection Prevention and Control Measures:

Infection prevention and control measures are determined based on a screening process and a risk assessment to determine the level of transmission risk. As a precaution, the infection prevention and control (IPC) measures below are recommended for any patient who accesses health care and has signs, symptoms, or risk factors suspicious of a VHF or another high threat pathogen.

Initiate appropriate IPC measures immediately. The following are IPC recommendations for patients who are suspected or confirmed to have a VHF:

- Have the patient wear a medical mask, if tolerated, and perform hand hygiene.
- Undertake a risk assessment of the patient to determine the level of transmission risk. In addition to routine IPC practices, follow additional IPC measures (e.g., cleaning and disinfection and waste management) and PPE recommendations based on either low or high-risk scenarios as per the British Columbia Ebola Guidance. Refer to Personal Protective Equipment Guidelines and other PPE resources available within the British Columbia Ebola Guidance. Follow institutional procedures that have been established for high threat pathogens including Ebola.
- Consult with IPC staff in health authority-operated sites and public health in community.
- Ensure that HCWs are trained in donning and doffing of PPE used for high threat pathogen/Ebola response.
- Follow organizational guidelines regarding patient placement, management, and discontinuation of additional precautions.
- In health authority-operated sites, follow local institutional training and established procedures for management of patients with suspected or confirmed VHF. Provincial online educational resources for infection control precautions for high threat pathogens are available on the PHSA Learning Hub with courses listed and accessible via the PICNet website.
- Adhere to IPC and workplace health and safety guidelines for aerosol-generating medical procedures (AGMPs) that are medically necessary, including airborne, droplet, and contact precautions.

Public Health

- ***Health care providers should immediately notify*** **their local medical microbiologist on call (for health authority-operated sites) and the local medical health officer on call for suspected cases of VHF.** Responsible physicians will then notify the BCCDC PHL medical microbiologist on call for review of risk factors.
- If the suspicion for Ebola remains high following the initial consultation, a broader huddle that includes the Provincial Health Officer will be convened for further assessment of risk factors and the need for VHF testing. If it is determined following the huddle consultation that VHF viral testing is warranted, the BCCDC PHL medical microbiologist on call will initiate the Emergency Response Action Plan (ERAP) for patient samples sent out for testing.
- Cases of suspected VHF are reportable under the Reporting Information Affecting Public Health Regulation of the Public Health Act.
- Follow health authority procedures for notification and engagement of additional partners for safe provision of care, e.g., BC Biocontainment Leadership.

Additional Resources:

- BCCDC Ebola Information for Professionals (Clinical Resources)
- For additional Ebola guidance, refer to the Office of the Provincial Health Officer's Ebola website.
  - Primary Care Centre Arrival Algorithm
  - Emergency Department Ebola Virus Disease (EVD) Risk Assessment Algorithm

Regional Contact Information for Public Health (for Healthcare Professionals)

- Fraser Health:
  - Business hours: 1-866-990-9941
  - After business hours: 604-527-4806
- Interior Health: 1-866-457-5648
- Island Health
  - South Island: 1-866-665-6626
  - Central Island: 1-866-770-7798
  - North Island: 1-877-887-8835
- Northern Health:
  - Business hours: 250-645-3794
  - After business hours: 250-565-2000, press 7, ask for the MHO on call.
- Vancouver Coastal Health:
  - Business hours: 1-855-675-3900
  - After business hours: 604-527-4893
- BCCDC Medical Microbiologist on call: 604-661-7033
- BCCDC Physician Epidemiologist: 604-875-2161
- Biocontainment Treatment Center Physician on-call:
  - Accessed through FHA switchboard 604-581-2211, or FHA on call scheduling system online under 'Infectious Diseases – SMH Biocontainment Unit'.

Regional Health Authority Contact Information for IPC (for Healthcare Professionals):

- Contact the switchboard in your health authority to reach IPC and Medical Microbiologist on call.

References

1. World Health Organization (WHO). Marburg virus disease – Equatorial Guinea and the United Republic of Tanzania. May 8 2023. Accessed May 23 2023. https://www.who.int/emergencies/disease-outbreak-news/item/2023-DON444

2. World Health Organization (WHO). Ebola disease caused by Sudan ebolavirus – Uganda 14 January 2023. Accessed April 6, 2023. https://www.who.int/emergencies/disease-outbreak-news/item/2023-DON433

3. U.S. Centers for Disease Control and Prevention (CDC). Health Alert Network (HAN) - 00489 | Marburg Virus Disease Outbreaks in Equatorial Guinea and Tanzania 6 April 2023. Accessed April 6, 2023. https://emergency.cdc.gov/han/2023/han00489.asp