Viral Hemorrhagic Fevers: Case and Contact Management Reference Document

Case and Contact Management and Risk Assessment Information for Public Health Units in Ontario

Ministry of Health

June 2026

Ontario

Ontario. Ministry of Health. Viral hemorrhagic fevers: case and contact reference document. Toronto, ON: King’s Printer for Ontario; 2026.
ISBN 978-1-4868-9930-2

Table of Contents

Purpose

The Ministry of Health (the ministry) developed this document to support local public health units (PHUs) in Ontario to manage probable or confirmed cases of viral hemorrhagic fever (VHF) in their jurisdiction. The Viral Hemorrhagic Fevers: Case and Contact Management Reference Document replaces the interim guidance document entitled *Public Health Management of Viral Hemorrhagic Fever – Interim Guidance*. This document is a comprehensive reference document that outlines actions and provides information to assist PHUs with the risk assessment process, reporting, partner collaboration, and other investigative steps. It is not intended to provide medical advice, diagnosis, treatment, or legal advice.

Note: In response to a large or prolonged outbreak, a federal direction or order may be issued which may not align with this provincial guidance and will be addressed, as necessary. The usual testing pathways may also be adjusted.

Introduction

The clinical syndrome referred to as VHF can be caused by a diverse array of RNA virus families, including members of the arenaviruses, bunyaviruses, filoviruses, and flaviviruses. VHF is characterized by a variety of symptoms, with varying degrees of hemorrhagic manifestations that present in the most severe form of the disease. Viruses that cause VHF are a public health concern due to their significant clinical manifestations, potentially high case fatality rate, and some viruses can be transmitted from person-to-person.[1-3]

Although the risk of transmission of a virus that causes a VHF is very low in Canada, PHUs should be prepared to implement case and contact management if a Person Under Investigation (PUI, as defined below), probable, or confirmed case (both, as defined in the Appendix 1: Case Definitions and Disease Specific Information: Viral Hemorrhagic Fevers of the *Infectious Disease Protocol, 2023* [or as current]) is identified or diagnosed in Ontario.[4,5]

Cases of VHF are most likely to be identified in a returning traveller or humanitarian worker arriving from a VHF-affected country. The immediate public health response to the identification or diagnosis of a VHF causing pathogen is to reduce the risk of transmission to others. An early response is critical to controlling the spread.[3,5]

What you need to know:

- In Canada, the risk of transmission of a virus that causes VHF is very low.
- When an outbreak of a VHF causing pathogen is declared outside of Canada, both continual monitoring and situational awareness are important.
- If a VHF case was to occur in Canada, the most likely scenario would be a recent traveller or humanitarian worker returning from a VHF-affected country.

- PHUs should be prepared to assess, manage, and monitor a PUI, probable, or confirmed case of VHF.

Please note: Although it is not reflected in the 2026 version of this document, the International Committee on Taxonomy of Viruses has revised names for the former *Ebolavirus* and *Marburgvirus* genera to decrease confusion of the genus, species, and virus names. In future versions of this document, when referring to all viruses within these genera, the terms orthoebolavirus(es) and orthomarburgvirus(es) will be used, as recommended. The common names for many of these viruses remain the same (e.g. Sudan virus, Bundibugyo virus, and Marburg virus); however, the common name Ebola virus now only refers to the former Zaire virus or Zaire ebolavirus. Disease caused by orthoebolaviruses is now commonly referred to as Ebola disease. The virus names in this document remain unchanged and valid.[6]

Case and Contact Management

The case and contact management information in this document applies to the management of individuals who are deemed to be a person under investigation (PUI), probable, or confirmed cases of any of the pathogens that cause VHF, and to reduce the risk of contact-based person-to-person transmission. The VHF virus families and their associated diseases, listed below, include, but not are not limited to:[1,2,7,8]

Table 1: The VHF virus families and their associated disease:

VHF Virus Family	VHF Diseases
Arenaviruses	• Chapare • Lassa • Lujo • Guanarito • Machupo • Junin • Sabia
Bunyaviruses	• Crimean-Congo hemorrhagic fever • Hemorrhagic Fever with Renal Syndrome
Filoviruses	• Ebola • Marburg
Flaviviruses	• Yellow fever • Dengue • Kyasanur Forest Disease • Omsk hemorrhagic fever

This document was developed using available evidence and best practices for case and contact management of viruses that cause VHFs and **do** have a risk of contact-based person-to-person transmission (for example, through broken skin or mucous membranes) with blood, other bodily fluids, and tissues of infected persons.[1,2,5,7,8]

For viruses that cause VHFs that **do not** have a risk of transmission through contact-based person-to-person transmission (e.g., hantaviruses that cause Hemorrhagic Fever with Renal Syndrome, Rift Valley fever, and flaviviruses such as dengue, yellow fever, Kyasanur Forest Disease, and Omsk hemorrhagic fever) the case management recommendations can be applied; however**,** contact management is usually not required. Contact management can be applied in circumstances where there is a known risk of transmission for that virus (e.g., unprotected health care worker exposures, tissue/organ/blood donation recipients, from a pregnant individual to their fetus).[1,2,5,7,8]

Definitions for the purpose of this document:

Person under investigation (PUI) refers to a person with VHF-compatible signs and symptoms **AND** VHF laboratory testing is recommended based on a VHF Clinical Risk Assessment, in consultation with an infectious diseases physician (if required and where available) and the ministry (with results are pending) **AND** does not meet the probable or confirmed case definition.[1,2,5]

PUIs must be reported to the local PHU in accordance with O. Reg. 569 (Reports) under the *Health Protection and Promotion Act* (HPPA) and its applicable regulations, and the PHU, in turn, should immediately forward reports to Public Health Ontario (PHO), and the ministry to determine next steps.[4,5,9,10]

- PUI is not defined in the Infectious Disease Protocol's Appendix 1: Case Definitions and Disease-Specific Information: Viral Hemorrhagic fevers caused by: i) Ebola virus and ii) Marburg virus, iii) Lassa Fever, and (iv) Other viral causes including bunyaviruses, arenaviruses, and flaviviruses; however, it represents the most common situation when an individual is being assessed as a VHF case.

Probable case refers to individuals meeting the **probable** case definition as defined in the Appendix 1: Case Definitions and Disease-Specific Information: Viral Hemorrhagic fevers caused by: i) Ebola virus and ii) Marburg virus, iii) Lassa Fever, and (iv) Other viral causes including bunyaviruses, arenaviruses, and flaviviruses. Individuals meeting the probable case definition should be managed using the same case and contact management information outlined in this document for a confirmed case.[4,5]

PHUs should ensure that the correct case classification (i.e., probable) is entered into any database system, as directed by the ministry, when providing case and contact management for individuals meeting the probable case definition and updated, as appropriate, if the case classification changes. [4,5]

Confirmed case refers to individuals meeting the **confirmed** case definition outlined in the Appendix 1: Case Definitions and Disease-Specific Information: Viral Hemorrhagic fevers caused by: i) Ebola virus and ii) Marburg virus, iii) Lassa Fever, and (iv) Other viral causes including bunyaviruses, arenaviruses, and flaviviruses.[4,5]

The outbreak case definition varies with the viral pathogen causing the outbreak under investigation. However, because of the severity and rarity of hemorrhagic fevers, **a single confirmed case constitutes an outbreak**.[2,3,7]

Case and contact information (including returning travellers from VHF-affected areas) includes activities to:

- manage a PUI, probable, confirmed case, convalescent case, or deceased case
- identify contacts of a probable, or a confirmed case
- assess contacts and assign exposure risk level
- manage contacts according to exposure risk level
- manage a contact who develops symptoms compatible with VHF.[2,3,7,9,11]

This document provides the best available information, at the time of publication, to assist PHUs, and gives the flexibility to manage contacts depending on the level of risk of exposure to a virus causing VHF.

The use of orders under the HPPA, may be considered by medical officers of health (or their designate, i.e. Public Health Inspector) on a case-by-case basis if the condition(s) to make an order under the HPPA have been met.

This document incorporates recommendations to limit the number of contacts requiring public health follow-up. The ministry is **not** recommending that asymptomatic contacts be quarantined as people infected with a virus causing VHF are not infectious before the onset of symptoms. However, the ministry is recommending some modifications to the contact's activities during the monitoring period depending on the contact's risk level in order to reduce the risk of exposure to others if the contact subsequently becomes symptomatic and infectious. This includes balancing the objectives of minimizing the number of contacts who would require public health follow-up should an exposed individual develop symptoms of a VHF, while respecting the rights and freedoms of an asymptomatic individual who is not currently infectious.[2,3,7,9,11]

The recommendations in this document consider the following: that the early symptoms of VHF may be mild and non-specific by the affected person; public concern will be high; and minimizing the number of potentially exposed contacts would be beneficial for both public health management of a case and the public perception of risk.[2,3,7,9,11]

International Border Measures

Under the federal *Quarantine Act*, the Public Health Agency of Canada (PHAC) can introduce enhanced border measures at ports of entry to screen international travellers arriving in Canada for communicable diseases listed in the Act.

The scope of the **enhanced measures** is determined by PHAC and shared with the ministry. The enhanced measures will be based on the context of the outbreak in the country and/or countries affected. Further, public health actions for enhanced monitoring will also vary based on the context of the outbreak. The ministry will communicate with the relevant health system partners when the threshold for an elevated response has been met; if the risk of transmission changes; and, when the outbreak has been declared over.

See Appendix A: Potential Case Identification at the Border for current processes as established by PHAC, and the Canadian Border Security Agency (CBSA). Appendix A will be updated as processes change.

For up-to-date information on travel notices currently in effect, see **Travel Health Notices.**

Health System Partners' Roles & Responsibilities

Public Health Agency of Canada (PHAC)

- Implement enhanced border measures under the federal *Quarantine Act*. (See Appendix A: Potential Case Identification at the Border for additional information and current processes.)
- Collaborate with federal and provincial/territorial counterparts to establish outbreak specific processes and protocols.
- Assess and monitor international travellers and their contacts.
- Issue Quarantine Orders to international travellers. Quarantine Orders to international travellers.

National Microbiology Lab (NML)

- In coordination with the ministry and PHO, support decision-making on a VHF laboratory testing plan.
- Work with the ministry – HSEMB and PHO to activate the Emergency Response Assistance Plan (ERAP) for sample shipments, as required.
- Conduct confirmatory testing, as required.

Ministry of Health (the Ministry):

- Provide legislative and policy oversight to PHUs and their boards of health.
- Issue information to guide PHUs on the management of a PUI, probable, or confirmed case of VHF, their contacts, outbreaks, and provide clear expectations of

PHUs' roles and responsibilities.

- Maintain 24/7 capability to respond to health system emergencies, including notifications of a PUI, probable, or confirmed case of VHF.
- Lead the response coordination for a PUI, probable, or confirmed case of VHF in Ontario. This includes but is not limited to, coordination of actions related to testing, patient transfer and transportation, case and contact management, and communications.
- Collaborate with PHO's laboratory and NML to support the transfer of specimen shipments to the NML, per ERAP, as required.
- Support PHUs during investigations and outbreaks with respect to coordination, policy, interpretation, communications, and further support, as requested.
- Comply with any International Health Regulation (IHR) notifications, as necessary.
- Liaise with Ontario ministry partners, as necessary.
- Activate/deactivate the Ministry's Emergency Operations Centre (MEOC) and the Ontario Outbreak Investigation Coordinating Committee (ON-OICC), as necessary.
- Share information on accessing the provincial stockpile of personal protective equipment (PPE) and critical supplies and equipment (CSE). PPE and CSE supplies in the provincial stockpile are available through Supply Ontario's PPE Supply Portal to health care workers (HCWs) and employers of HCWs.

Supply Ontario (SO)

- Maintain a provincial stockpile of PPE and CSE to support the health system.
- Facilitate orders of PPE and CSE through the PPE Supply Portal or email at SupplyChain.Inquiries@ontario.ca.

Public Health Ontario (PHO)

- Contribute scientific and technical expertise to support system-level planning and process development
- Develop evidence informed guidance and resources to support public health partners, outbreak investigations, infection prevention and control (IPAC), and other related public health activities.
- Participate in system-level coordination activities and related after action reviews to strengthen provincial preparedness and support continuous quality improvement.
- Advise hospitals and hospital laboratories on safe specimen collection, packaging, and handling in accordance with Transport Canada's Transportation of Dangerous Goods Regulations, in accordance with the Specimens Requiring Emergency Response Assistance Plan (ERAP) for Transport within Canada guidance.

- Receive notifications from PHAC Quarantine Officers regarding returning travellers of concern and inform the appropriate PHU of necessary traveller information (e.g., exposure risk level, issuance of a Quarantine Order).

- Provide scientific and technical advice to public health partners (e.g., PHUs, MOH, Health Coordination Call) on persons under investigation (PUI) and probable or confirmed cases to support shared risk assessment and coordinated decision making

- Collaborate with MOH and NML to arrange specimen transfer to PHO and NML, perform timely laboratory testing, and communicate preliminary and confirmatory results to relevant partners.

Public Health Unit (PHU):

- Receive and investigate identified contacts of a probable or confirmed case of a VHF, as specified under the HPPA.
- Initiate and complete case and contact management for any Persons Under Investigation (PUI), probable, confirmed, convalescent, or deceased cases with VHF, based on their assessed risk level
- Receive and investigate reports of returning travellers from identified countries under a Quarantine Order from PHAC based on the traveller's base location (e.g., home address).
    - Assess all reports for risk of exposure and manage each individual based on their risk level: low risk, at risk, or high risk.
    - **Note:** Frequency of follow-up with returned travellers and their contacts will be dependent on their assessed risk level, type of exposure and/or Quarantine Order.
- Enter PUIs, cases, and outbreaks in the integrated Public Health Information System (iPHIS) within 24 hours of notification and in accordance with data entry guidance provided by PHO.
- Engage and/or communicate with relevant partners and ministries, as necessary, including the ministry, PHO, hospitals, laboratories, Emergency Medical Services (EMS), and IHR notification.
- Engage with the ministry's Public Health Veterinarian for an assessment in case of PUI exposure to animals through IDPP@ontario.ca.
- Declare an outbreak over in consultation with the ministry and PHO.

All Hospitals

- Maintain the ability to triage, and provide isolation and initial care, with appropriate IPAC precautions, to a potential PUI or probable case of VHF that presents to the hospital.
- Gather relevant information from patient (or next of kin) to inform risk assessment.
- Complete PHO's Viral Hemorrhagic Fever Clinical Assessment Tool.

- Follow the IPAC recommendations for the handling and elimination of liquids, body fluids, and linens from patients with suspected or confirmed VHF outlined in PHO's Infection Prevention and Control Management of Viral Hemorrhagic Fever in Acute Care.
- Coordinate with partners as required to provide patient care and reduce the risk of further exposures.
- Manage exposed health workers according to occupational health protocols.

Case Management by Public Health Units

PHU actions regarding case management are summarized for a PUI, probable or confirmed cases , convalescent cases and deceased .

Management of a person under investigation (PUI)

Criteria

A person with any of the following VHF-compatible signs or symptoms:[1,2]

- abdominal pain
- chest pain
- conjunctival injection or bleeding (red eye)
- cough
- diarrhea that can be bloody
- fatigue/malaise/lethargy
- documented fever ≥ 38.0°C (101.4°F)
- subjective fever/chills
- severe headache
- myalgia
- nausea
- pharyngitis (sore throat)
- vomiting or hematemesis
- weakness
- rash
- other unexplained bleeding or hemorrhage (e.g., ecchymoses, epistaxis, gingival bleeding, hemoptysis, rectal bleeding including melena or hematochezia)

AND

VHF laboratory testing is recommended based on the VHF Clinical Risk Assessment, in consultation with an Infectious Diseases physician (if required and where available) and the ministry and (with results pending) and does not meet the probable or confirmed case definition.

Public Health Unit Actions

- Notify by telephone the Ministry of Health's Health Systems Emergency Management Branch (HSEMB) via the 24/7 Health Care Provider Hotline (1-866-212-2272 ext. 1) of the PUI. Review the ministry's Notification Pathway for Special Pathogens (SPs) for more information.
- The ministry will coordinate a call with relevant partners to support the risk assessment and determine next steps including, but not limited to, patient testing, patient transportation to a hospital, case and contact management, and communications.
    - Public health actions and contact identification for PUI cases (as detailed in Table 2 a and b) should proceed after discussion with the ministry, PHO, and in consultation with the attending clinician to ensure a high index of suspicion.
- If communication is possible, advise the patient to:
    - Immediately isolate (remain at home until they seek health care)
    - Maintain a two-metre distance from others to ensure that no one has direct contact with their blood or other bodily fluids (including urine, feces, emesis, saliva, sweat and semen), or any contaminated items (e.g., linens, clothing, toilet, toiletries)
    - Dispose of urine, stool, and emesis through the regular sewer system.
    - Cease all contact with livestock and pets/companion animals (see Animal Contacts)
- Notify and consult with the ministry regarding the application of the public health actions detailed in Table 2 (a and b), especially when there is a high index of clinical suspicion.
- Complete the Viral Hemorrhagic Fevers Ontario Investigation Tool and enter the individual into iPHIS as a PUI.

Management of a probable or confirmed case: VHF with risk of person-to-person transmission

Criteria

See case definitions in *Infectious Disease Protocol - Appendix 1: Case Definitions and Disease-Specific Information - Disease: Hemorrhagic fevers caused by: i) Ebola virus and ii) Marburg virus, iii) Lassa Fever, and (iv) Other viral causes including bunyaviruses, arenaviruses and flaviviruses*[4,5]

Public Health Unit Actions

- Immediately notify the Ministry of Health's Health Systems Emergency Management Branch (HSEMB), by telephone, via the 24/7 Health Care Provider Hotline (1-866-212-2272 ext. 1) of the probable or confirmed case. Review the ministry's Notification Pathway for Special Pathogens (SPs) for more information.
- Immediately notify PHO
    - **During business hours (Monday to Friday, 8:30-4:30pm):** Send an urgent email to Communicable.DiseaseControl@oahpp.ca
    - **After hours/weekends:** notify by telephone using established PHO on-call contact processes.
- Complete the Viral Hemorrhagic Fevers Ontario Investigation Tool and enter the minimum mandatory data elements into iPHIS within 24 hours of notification of the probable or confirmed case.
- Within 24 hours of notification of a probable or confirmed case, complete the Viral Hemorrhagic Fevers Ontario Investigation Tool, enter the minimum mandatory data elements into iPHIS, and submit an iPHIS referral to PHO including a scanned copy of the completed tool.
- Monitor the case using Appendix C: Probable or Confirmed Case Daily Clinical Update Worksheet until the case has been discharged from the hospital.
- Advise on cleaning and disinfection of locations where the symptomatic case was present (e.g., home, work location, etc.). PHUs may contact HSEMB's Health Care Provider Hotline for support in identifying a company that is able to clean and disinfect environments contaminated with infectious materials. For Ebola see Measures for the management of Ebola virus disease-associated waste and Linen in Home Settings - Canada.ca for additional details.
    - **Note:** Family/other household members or friends should not handle VHF-associated waste or conduct environmental cleaning in the home.
- Advise on discharge planning in collaboration with the hospital's infectious disease specialist(s) and IPAC team.
    - **Note:** For Ebola and Marburg, the hospital may consider discharging the probable or confirmed case that are clinically stable for greater than 72 hours after symptom onset **and two blood tests (collected 24 hours apart) are both negative by reverse-transcriptase polymerase chain reaction (RT-PCR)**.
    - **Note:** For Chapare, Lassa, and Lujo, bodily fluids should be tested for infectivity and must test negative by RT-PCR prior to discharge.
    - **Note:** For Crimean-Congo Hemorrhagic Fever, discharge may be considered 9-10 days after symptom onset if there is evidence of clinical improvement.

- Once the case has been discharged from hospital, refer to the public health management of a convalescent case .

Contact Management for VHF with risk of person-to-person transmission:

- Identify and conduct contact monitoring (see Contact Identification). See Risk Levels for exposure specific recommendations.

If the case had contact with a pet/companion animal since symptom onset, contact the ministry's Public Health Veterinarian IDPP@ontario.ca.

Management of a probable or confirmed case: VHF without risk of person-to-person transmission

Criteria

Infectious Disease Protocol - Appendix 1: Case Definitions and Disease-Specific Information - Disease: Hemorrhagic fevers caused by: i) Ebola virus and ii) Marburg virus, iii) Lassa Fever, and (iv) Other viral causes including bunyaviruses, arenaviruses and flaviviruses[4,5]

Public Health Unit Actions

- Notify the ministry of the probable or confirmed case.
- Complete the Viral Hemorrhagic Fevers Ontario Investigation Tool and enter the minimum mandatory data requirements into iPHIS within 24 hours of notification of the probable or confirmed case.
- Advise confirmed cases of **dengue hemorrhagic fever** not to donate blood, other bodily fluids, or tissues during the period of communicability.
- Bloodborne transmission of **dengue** is possible (in rare cases), through a transfusion of infected blood or donated organs, or other tissues within the 7-day viremia in infected persons. There is also the risk of vertical transmission if the birthing parent is acutely ill at the time of delivery.

Case management is complete once the requirements set out in the Requirement #2 of the "Management of Infectious Diseases – Sporadic Cases" and "Investigation and Management of Infectious Diseases Outbreaks" sections of the *Infectious Diseases Protocol, 2023* (or as current) have been fulfilled.[4]

Management of a convalescent case: VHF with risk of person-to-person transmission

Criteria

A confirmed case who is clinically stable for greater than 72 hours

AND

has two negative blood tests (collected 24 hours apart) by reverse-transcriptase polymerase chain reaction (RT-PCR)

AND

has been discharged from hospital.

Public Health Unit Actions

- Ensure that the hospital has referred the convalescent case to an infectious disease specialist for ongoing monitoring for the potential sequelae[1] of VHF.
- Continue to monitor the case until there is no detectable virus causing VHF present in the blood and other bodily fluids using RT-PCR.

Additional considerations for cases of Ebola and Marburg virus diseases:

- For convalescent cases capable of producing semen (regardless of gender identity) advise:
    - the individual either abstains from sexual activity or observe safe sex practices through correct and consistent condom use and follow recommendations for testing of semen.
    - on a case-by-case basis, test semen three months after symptom onset. For those who test positive, testing should continue every month until there are two consecutive negative tests, collected at least one week apart. Consult PHO's laboratory, with support from the ministry and NML, for relevant specimen collection, testing, and transport information, including ERAP procedures.
    - If the case's semen has not been tested, the recommendation is abstention or safe sex practices for at least 12 months after symptom onset. This interval may be adjusted as additional information becomes available on the viability of infectious Ebola and Marburg virus in the semen of survivors over time.
        - **Note:** Arenaviruses (e.g., Chapare, Lassa, and Lujo) may still be detectable in bodily fluids, including semen, of convalescent cases following the resolution of symptoms. As a precautionary approach, the above recommendations for semen testing and safe sex practices may be applied.
- For convalescent cases who are breast or chest feeding children of any age, including the expression of human milk, discontinue until the breast/chest milk has been confirmed negative for the virus that caused the VHF.

---

[1]**Potential sequelae**: **Crimean-Congo Hemorrhagic Fever** (polyneuritis, sweating, headache, vertigo, nausea, poor appetite, laboured breathing, poor vision, loss of hearing, and loss of memory), **Ebola virus disease** (tiredness, headaches, muscles and joint pain, eye and vision problems, weight gain, stomach pain or loss of appetite), **Lassa fever** (deafness), **Marburg virus disease** (exhaustion, myalgia, hyperhidrosis, skin desquamation, and hair loss).[1,3,12]

- Relapse in the absence of re-infection may occur as Ebola and Marburg viruses may persist in immunologically privileged sites in convalescent cases. See Infection Prevention and Control Management of Viral Hemorrhagic Fever in Acute Care for additional information and IPAC recommendations when caring for Ebola virus disease survivors presenting for care that may or may not be related to relapse.

Management of a deceased case: VHF with risk of person-to-person transmission

Criteria

Death of an individual meeting the probable or confirmed case definition, as per Infectious Disease Protocol - Appendix 1: Case Definitions and Disease-Specific Information - Disease: Hemorrhagic fevers caused by: i) Ebola virus and ii) Marburg virus, iii) Lassa Fever, and (iv) Other viral causes including bunyaviruses, arenaviruses and flaviviruses[4,5]

Public Health Unit Actions

- Collaborate with the hospital to develop a step-by-step process to guide the management of human remains.[1] Refer to the Infection Prevention and Control Management of Viral Hemorrhagic Fever in Acute Care for further guidance.
- Support the funeral home to plan for a safe burial or cremation.[12]
- For a death of an infectious individual who is not in the hospital, safe transport of the body is also required.

(1) This process must include the safe preparation of the body in the location where the individual has died, controlled transport of the body to the hospital's morgue or loading area, and handover of the body to a transfer service.

Any person having custody of the body must enable the service to transfer the body into a casket of sound construction, satisfactory to the Medical Officer of Health or their designate, from the morgue or loading area prior to offsite shipment to the burial or cremation site. Any person having custody of the body is also required to incorporate the control measures outlined in sections 7-10 of Reg. 557, Communicable Diseases-General.[13]

(2) Under Reg. 557, sections 8(6) and 9 of the HPPA , the Medical Officer of Health may direct the body be removed directly to the place of burial/cremation, or to restrict the attendance of persons at the funeral of a deceased case. PHUs should work with the funeral home to support the planning of the burial or cremation. The Medical Officer of Health can contact the ministry for support in conducting a risk assessment related to the burial or cremation arrangements.[13]

(3) There is no known risk of transmission from a virus that can cause VHF through casual contact with a convalescent VHF patient. However, the virus can remain in areas of the body for several months after acute infection. These are sites where the pathogen, such as Ebola and Marburg virus, are shielded from the convalescent case's immune system, even after the case is no longer symptomatic and has recovered. The virus's presence and length of time in these body parts can vary by virus and vary by

individual/case. Contact the ministry and PHO for IPAC consultation regarding the management of a convalescent case who dies post-discharge.[1]

Contact Identification

Identification of a Traveller's Contacts at Points of Entry

For specific information regarding current processes as established by PHAC, see Appendix A: Potential Case Identification at the Border.

Household and Other Community Contacts, including HCWs

PHUs should begin contact identification activities immediately upon identification of a probable or confirmed case.

NOTE: For PUIs, contact identification should only proceed after discussion with the ministry and PHO regarding the index of suspicion of the PUI for becoming a case.

PHUs may use the worksheets in Appendix D and Appendix E to assist with contact identification.

When identifying potential contacts, the PHU should consider the following for the case, as relevant:

- Living environment
- Workplace
- Educational settings
- Recreational and other social activities
- Sexual Contacts
- Animal Contacts (e.g. pets, companion animals, livestock)
- Health care visits
- Public transportation
- Travel history
    - If the case traveled by airplane, the PHU may send a request to PHO for the flight manifest, which is received from PHAC.
        - **During business hours (Monday to Friday, 8:30-4:30pm):** Send an urgent email to Communicable.DiseaseControl@oahpp.ca
        - **After hours/weekends:** notify by telephone using established PHO on-call contact processes.
    - A risk assessment for contact follow up may also include airport partners. This information is also available through PHAC.

The PHU should use multiple methods of reaching each contact at the time of the initial interview (e.g., home, work and cell phone numbers, email address, and work and home

address). PHUs should use usual practices to locate contacts who cannot initially be reached including calling or texting at varied times in the day and evening, using email, conducting home visits, and employing registered mail. For contacts who are difficult to reach, PHUs can consider other methods such as involving police and process servers. The PHU should consult with the ministry when contacts still cannot be reached after applying multiple and varied contact methods.

Risk Levels

The PHU should assess contacts of PUIs, probable, or confirmed cases for their risk of exposure and manage each individual based on their risk level including, asymptomatic returning travellers, household contacts, and HCW contacts. Symptomatic contacts should be managed as a PUI (refer to the criteria listed in Management of a person under investigation (PUI)).

The risk levels summarize the criteria to identify the risk level of the individual (Low-risk, At-Risk, and High-Risk, respectively), and the corresponding PHU actions.

Individuals will be assessed and managed by the PHU in the jurisdiction where they reside. The goal of contact management is full containment where every at-risk or high-risk contact is identified and followed up to reduce the risk of further transmission of the virus.

PHUs should consider the following when assessing the risk level of a contact:

- The PUI, probable, or confirmed case's symptoms and stage of illness at the time of exposure:
    - **Direct contact** in the early stages of illness with minimal symptoms is less infectious than symptoms of diarrhea, vomiting and/or bleeding, or when the patient is in the later stages of illness.
    - **Indirect contact** without symptoms of diarrhea, vomiting, or bleeding has a lower risk of exposure than direct or indirect contact with bodily fluids and contaminated materials from a clinically unstable patient with symptoms of diarrhea, vomiting, or bleeding.
    - Please refer to PHO's Infection Prevention and Control Management of Viral Hemorrhagic Fever in Acute Care for further details.
- The duration and nature of the interaction between the PUI, probable, or confirmed case and the contact and the routes of transmission.
    - **Note:** For an infection with Ebola virus, the epidemiological evidence supports close contact with infected people and their fomites as the predominant modes of virus transmission. Laboratory studies demonstrate the theoretical potential for Ebola virus to be transmitted via aerosol particles; however, the current existing evidence suggests that it is unlikely.

The HCW's role in providing care for the PUI, probable, or confirmed case. Examples of lower vs. higher risk of exposure interactions in health care settings include:

Low risk:

- Supporting the patient during independent toileting
- Providing the patient with an emesis basin

High risk:

- Providing personal hygiene, toileting, and changing incontinence products
- Presence during percutaneous exposure with phlebotomy or intravenous insertion
- Presence during aerosol generating medical procedure
- Cleaning soiled areas

Additional Considerations for HCWs

- The type of facility, IPAC precautions, and application of the hierarchy hazard controls (appropriate use of PPE, environmental engineering, and administrative controls, etc.)
- The training and oversight provided with respect to the HCW's adherence to the precautions in place, including the correct use of PPE as per the *Occupational Health and Safety Act.*
- The potential evolution of symptoms and stability of the PUI, probable, or confirmed case (i.e., from clinically stable to clinically unstable) requires HCWs to be vigilant to prevent an increased risk of transmission. IPAC point-of-care risk assessments should be performed with consideration for enhanced IPAC precautions.
    - Please see Infection Prevention and Control Management of Viral Hemorrhagic Fever in Acute Care for further details on the point-of-care risk assessment.

Low risk

Risk Level Criteria

A returning traveller from a VHF-affected area who had no known contact with a symptomatic PUI, probable, or confirmed VHF case (or their bodily fluids or contaminated materials) while travelling AND was not issued a Quarantine Order to report to public health on return to Canada, AND does not meet high-risk or at-risk criteria.
OR

A household or community contact of a PUI, probable, or confirmed case during the case's pre-symptomatic period only AND had no direct contact with their bodily fluids or their contaminated materials;

OR

HCW/other individuals with direct contact with a PUI, probable, or confirmed case, their bodily fluids, their corpse, or any other known source of VHF virus, under appropriate IPAC precautions for the clinical management of the patient, and no known breaches in IPAC precautions.

Public Health Unit Actions

All returning travellers and household/community contacts:

- For travellers with no known exposures in a VHF affected area there is no recommendation to contact the local PHU if they are asymptomatic.
- If an asymptomatic traveller and/or household/community contact connects with the PHU, any active monitoring or specific guidance on precautions is at the PHU's discretion, based on context-specific risk assessment. The PHU should provide the following information:
    - the signs and symptoms of VHF,
    - how to self-monitor for the duration of the monitoring period[2] based on the specific VHF virus to which they were exposed,
    - the process of contacting the PHU if symptoms develop,
    - that there are no restrictions for the individual on traveller activities, and
    - to check the travel advisories for other countries, if planning to travel outside of Canada.
    - to continue infection prevention and control practices such as good hygiene
- Provide the contact(s) with Appendix G: Temperature and Symptom Reporting Form of Contacts and instructions on how to use the form to support their daily self-monitoring.

Additional guidance for HCW contacts and/or individuals who work in a healthcare setting:

- The following information should be provided:
    - the signs and symptoms of VHF and how to self-monitor for the duration of the monitoring period based on the specific VHF virus to which they were exposed,
    - review process of contacting PHU if symptoms develop, and
    - there are no restrictions for the individual on travel or activities, including direct patient care.
- Advise HCWs to notify their workplace(s)/ organization(s) prior to returning to work and to follow any additional guidance and workplace policies. (Requirement to complete symptom monitoring and temperature checks prior to each shift.)

---

[2] Monitoring periods**: Chapare, Ebola, Lassa, and Marburg viruses** – 21 days; **Crimean-Congo Hemorrhagic Fever virus** – 14 days; **Lujo virus** – 13 days.[1-3]

At-risk

Risk Level Criteria

Returning traveller who lived or worked in an area or setting where active VHF transmission was occurring

AND

Does not meet high-risk criteria
(e.g., a humanitarian aid worker who lived in a location with active VHF transmission but was not working in a healthcare facility).

OR

Individuals with only casual interactions, and no direct contact, with a **clinically stable PUI, probable, or confirmed case** or their bodily fluids or contaminated materials.
(e.g. sharing a seating area on public transportation, sitting in the same waiting room, or within two rows but not directly next to individual on airplane).

Public Health Unit Actions

For all at-risk contacts:

- Complete the Appendix F: Contact Assessment and Monitoring Worksheet. For contacts of a PUI, probable, or confirmed case with a higher likelihood of becoming a confirmed case, enter data into iPHIS within one business day, at the discretion of the PHU.
- Advise the contact to modify their behaviour during the monitoring period by:
  - not donating blood, other bodily fluids, or tissues
  - postponing elective medical visits and other procedures (e.g., elective dental visits, elective blood tests)
  - notifying the PHU should they need to seek health care for any other purpose for the PHU to contact the healthcare provider prior to the appointment.
  - not restricting their movement during the monitoring period while asymptomatic (see Individuals that Travel during the Monitoring Period); however, the contact should notify the PHU of their intention to travel outside the health unit's jurisdiction:
    - once only, if occurs due to regular work schedule.
    - each time, if occurs for non-work-related travels (e.g., day trips) and to update their contingency plan, or transfer monitoring, as appropriate.
- Follow up with the contact on the first day and periodically (i.e., at least weekly), based on the PHU's risk assessment, to assess their self-monitoring process.
- Provide the contact with Appendix G: Temperature and Symptom Reporting Form of Contacts and counsel the contact regarding:
  - maintaining infection prevention and control practices such as hand hygiene
  - signs and symptoms compatible with VHF

- instructions to self-monitor for fever and other specific signs and symptoms of the VHF causing virus they were exposed to for the duration of the monitoring period[3] :
  - recording their oral temperature readings twice daily and avoid sharing oral thermometers; and
  - refraining from taking antipyretics (e.g., acetaminophen, ibuprofen, acetylsalicylic acid) during the monitoring period (if possible) as these medications could mask an early symptom of VHF.
- if a fever of ≥ 38.0°C (101.4°F) or any other symptom(s) compatible with VHF develop immediately:
  - self-isolate by staying in a separate room,
  - avoid direct physical contact with others (including maintaining a two-metre distance from others) and ensure that others do not have contact with their blood or other bodily fluids (including urine, feces, emesis, saliva, sweat and semen), or their materials (e.g., linens, clothing, toilet, toiletries)
  - dispose of urine, stool, and emesis through the regular sanitary sewer system, cease all contact with livestock and pets and companion animals (see Animal Contacts),
  - contact the PHU for further direction including on how to seek a medical assessment and
  - if an alternative to a VHF diagnosis is confirmed, maintain the self-monitoring process for signs and symptoms of VHF for the duration of the monitoring period.

- In collaboration with local paramedic services, PHU to develop a plan to transfer contact to the closest designated hospital if required (i.e., develop symptoms compatible with VHF) (see Developing a Contingency Plan for Exposed Individuals Who Become Symptomatic).

Additional recommendations for HCW contacts and/or individuals who work in a healthcare setting:

- Advise them to notify their workplace(s)/ organization(s) prior to returning to work and follow any additional guidance and workplace policies. (E.g., HCWs may be required to complete a symptom monitoring form and conduct a temperature check prior to each shift.)

If a HCW is providing direct clinical care to patients but does not have an Occupational Health and Safety or hospital IPAC department to report to (e.g., community healthcare provider), then the PHU should consider more frequent contact with the HCW for symptom monitoring and contingency planning.

[3] Monitoring periods**: Chapare, Ebola, Lassa, and Marburg viruses** – 21 days; **Crimean-Congo Hemorrhagic Fever virus** – 14 days; **Lujo virus** – 13 days. [1-3]

High-risk

Risk Level Criteria

Individual who had direct or close contact with a symptomatic PUI, probable, or confirmed case and with potential exposure to bodily fluids (including contact prior to onset of bleeding or vomiting or diarrhea) or their contaminated materials (e.g., household contacts, caregiver, seated directly next to a case on an airplane, transport in a confined space such as a rideshare)

OR

Individual who had unprotected sexual contact with an infected person or a person recovering from VHF before documented clearance of virus from semen (i.e., prior to two consecutive negative semen tests).[4]

OR

Individual who had percutaneous (e.g., needle stick) or mucous membrane exposure to blood, other bodily fluids, or contaminated materials of a PUI, probable, or confirmed case.

OR

Individual who had direct or close contact with a symptomatic PUI, probable, or confirmed case without full, appropriate PPE, (including inadequate donning or doffing), including during the provision of health care or entry into a care area, and with contact involving the person, their bodily fluids, or contaminated materials. (e.g., touched the person, their bodily fluids, or their contaminated materials without the use of full and appropriate PPE)

OR

Laboratory worker handling specimens of a PUI, probable, or confirmed case without appropriate biosafety measures.

OR

An individual who had direct contact with a dead body of a PUI, probable, or confirmed case (does not include a body in a body bag or coffin) without full, appropriate PPE, including inadequate donning or doffing.

Public Health Unit Actions

- Complete the Appendix F: Contact Assessment and Monitoring Worksheet. For contacts of a probable or confirmed case and a PUI with a higher likelihood of becoming a confirmed case, enter data into iPHIS within one business day.
- Follow-up with the contact frequently (e.g., daily) to receive updates on their self-monitoring process during the monitoring period.

[4] VHF viruses (e.g., Ebola, Lassa, and Marburg) can persist for months in semen, and possibly vaginal secretions, of infected persons.

- Provide the contact with Appendix G: Temperature and Symptom Reporting Form of Contacts and counsel the contact regarding:
  - symptoms compatible with VHF
  - instructions to self-monitor for fever and other signs and symptoms compatible with VHF the duration of the monitoring period[5] for the specific VHF virus to which they were exposed, including:
    - recording their oral temperature readings twice daily and avoid sharing oral thermometers; and
    - refraining from taking antipyretics (e.g., acetaminophen, ibuprofen, acetylsalicylic acid) during the monitoring period (if possible) as these medications could mask an early symptom of VHF.
  - if a fever of ≥ 38.0°C (101.4°F) or any other signs and symptoms compatible with VHF develop, immediately:
    - self-isolate and stay in a separate room,
    - avoid physical contact with others (including maintaining a two-metre distance from others) and ensure that others do not have contact with their blood or other bodily fluids (including urine, feces, emesis, saliva, sweat and semen), or their contaminated materials (e.g., linens, clothing, toilet, toiletries)
    - dispose of urine, stool, and emesis through the regular sanitary sewer system,
    - cease all contact with livestock and pets/companion animals (see Animal Contacts),
    - contact the PHU for further direction including how to seek a medical assessment , and
    - if a contact receives a medical assessment for VHF-compatible symptoms and an alternate diagnosis is confirmed, continue to self-monitor for signs symptoms of VHF for the duration of the monitoring period.
- Advise the contact to modify their behaviour during the monitoring period by:
  - limiting contact with other household members (e.g., separate bedroom, separate bathroom), if possible, to limit extended exposure during periods when onset of symptoms may not be readily identified.
  - remaining near a designated hospital (i.e., within a one-hour EMS transport time, if possible)
    - the PHU, in collaboration with local paramedic services and provincial supports, should develop a plan to transfer the contact should they develop symptoms compatible with VHF (see Developing a Contingency Plan for Exposed Individuals who become Symptomatic).

[5] Monitoring periods**: Chapare, Ebola, Lassa, and Marburg viruses** – 21 days; **Crimean-Congo Hemorrhagic Fever virus** – 14 days; **Lujo virus** – 13 days[1-3]

- postponing elective medical visits and other procedures (e.g., elective dental visits, elective blood tests)
- notifying the PHU if they seek health care for any other health concern. The PHU will contact the healthcare provider prior to the appointment.
- reporting any intentions to travel outside of their PHU jurisdiction during the monitoring period.
- practicing safe sex (e.g., condoms) and safe injection drug use (e.g., not sharing equipment)
- not donating blood or other bodily fluids or tissues
- not having contact with livestock or pets/companion animals (see Animal Contacts).

- Recommend that the contact restrict their activities to further minimize exposure to others for the monitoring period by:
  - no in-person attendance at educational settings (e.g., day care and primary, secondary, or post-secondary school)
  - no in-person attendance at the workplace
  - no in-person attendance in situations where the individual may be unable to remove themselves quickly and immediately self-isolate if they develop symptoms (e.g., crowded public places, social settings)
  - not travelling on public transportation (plane, train, bus, subway, etc.)
- PHUs should identify potential barriers and identify supports, as needed and available, if the contact becomes symptomatic, with attention to a non-stigmatizing, equitable, and client-centred approach (e.g., in-home supports for groceries, voluntary alternate accommodations near the closest designated hospital, plan for an alternate caregiver to family members and pet/companion animals).
- PHUs should consider the psychosocial impacts of these restrictions and potential supports for individuals.
- Activities that are low risk for exposure to others (e.g., going for a walk outside) are permitted, including for individuals living in multi-unit dwellings.

Additional recommendations for HCW contacts and/or individuals who work in a healthcare setting:

- Advise them to notify their workplace(s)/ organization(s) Occupational Health and Safety department of the exposure and to not have any direct patient contact for the duration of the monitoring period.
- The PHU should discuss the earliest possible return to work date with the Occupational Health and Safety department.

At the end of the monitoring period, HCWs are to consult their Occupational Health and Safety department prior to returning to work.

Additional Considerations

Management of Exposed Patients

Hospitals are responsible for identifying and managing the infection prevention and control of **inpatients** who were exposed to a symptomatic patient with VHF. PHUs should support hospitals to provide contact education and post-hospital follow-up. Refer to PHO's Infection Prevention and Control Management of Viral Hemorrhagic Fever in Acute Care for more information.

Hospitals are also responsible for identifying any **outpatients** who were exposed to a symptomatic patient with VHF, or inpatients who were discharged at the time of notification. Post notification, the PHU is responsible for managing these patients as contacts.

Management of First Nation Communities on Reserve

PHUs may need to work across jurisdictions to support case and contact management for First Nation Communities on reserve. As a result, each response will require collaborative efforts with communities and relevant sector partners, building on established roles and relationships.

Individuals Who Travel During the Monitoring Period

The PHU where an individual resides is responsible for initiating and maintaining contact during the entire monitoring period, even during travel to another PHU jurisdiction in Ontario or another province in Canada. On a case-by case basis, the PHU may transfer responsibility to another jurisdiction, depending on the travel itinerary. The decision to transfer monitoring to another jurisdiction will be determined through consultation with the ministry, PHO, the other PHU/jurisdiction, and PHAC (if travel is to another province).

If travel is to another country, the PHU will immediately notify the ministry; the ministry will notify PHAC; PHAC will notify the destination country through processes outlined in International Health Regulations.

If travel is to a VHF-affected country with a return to Canada, a new monitoring period would begin upon return, if another exposure occurred during their travel.

Contacts with a high-risk exposure should **not** be permitted to travel by public transit during their monitoring period.

Animal contacts

Contacts with a high-risk of exposure should have minimal contact with any animals during the monitoring period. This includes contact with livestock or any other animals outside the household, entering barns, or other livestock housing areas.

On a case-by-case basis, the PHU and animal health officials (including Ontario Ministry of Agriculture, Food and Agribusiness [OMAFA] and the ministry's Public Health Veterinarian) should consider the contact's risk level and the potential implications of the animal's exposure to the contact with high-risk exposure.

If separation of the individual from a pet/companion animal is not possible, the PHU should recommend limited contact with the animal during the monitoring period.

As viruses causing VHF are transmitted by symptomatic individuals, pets/companion animals of asymptomatic contacts are not considered to have been exposed until/unless the individual develops symptoms. Therefore, there are no restrictions on temporarily rehoming pets/companion animals of asymptomatic contacts.

If a PUI had exposure to any household pets after they develop symptoms:

- They should immediately cease all contact with the animal(s) and a use solid barrier (e.g., crate, separate room) to prevent any further direct contact with the animal.
- The PHU should report a potential animal health incident.
- Contact the ministry's Public Health Veterinarian for an assessment through the ministry's IDPP inbox: IDPP@ontario.ca. Inform on any animals (including livestock or companion animals/pets) that have been in contact with a PUI or symptomatic individual. If a potentially exposed animal requires veterinary care during the risk period, the ministry's Public Health Veterinarian will consult the Ontario Ministry of Agriculture, Food and Agribusiness (OMAFA) to determine the best approach, on a case-by-case basis.
- Another member of the household or another individual should provide care for the pet until the PUI's infection is resolved.
- Contact precautions (medical mask, disposable gloves, change of clothes) are recommended for 48 hours from the animal's last exposure to the PUI to prevent fomite transmission. After 48 hours routine care can be provided with careful attention to hand hygiene. Holding, snuggling, kissing, other face-to-face contact with the animal should be avoided.
- The pet should remain in the household. Dogs that must be taken outside for elimination activities should be limited to an enclosed, private yard, or walked on a leash and kept at a minimum of 2 m away from any other person or animals. Dog feces should be collected and disposed in the garbage promptly. Cats should be kept indoors.
- If no alternative arrangements to care for the pet can be made, the PUI should isolate with the pet (i.e., the pet is now an extension of the PUI and should not have direct contact with any other person or animal without identical precautions). The PUI should continue to minimize direct contact with the pet, avoid close contact (holding, snuggling, kissing, other face-to-face contact) and avoid any active skin lesions. If the animal must be handled, the PUI should wear clean clothes, a medical mask, disposable gloves, and perform hand hygiene before and after the interaction.

Military Personnel

Under the *Quarantine Act*, PHAC may issue an order to an individual to report to a public health authority and not a medical facility on a military base; therefore, it will be the responsibility of the PHU to maintain contact with the individual during the entire monitoring period. If the PHU prefers that the military medical facility maintain contact throughout the monitoring period, then it is the responsibility of the PHU to reach an agreement with the military medical facility. The PHU should specify the minimum frequency of follow-up and ensure that public health is notified if the individual develops symptoms compatible with VHF or does not report for follow-up. If such an agreement is made between a PHU and a military medical facility, the PHU should notify the ministry and PHO of this agreement and provide update at the end of the monitoring period.

Case and Contact (including returning traveller) Reporting Procedures

Table 2 outlines PHU reporting procedures for cases and contacts, including the reporting method and timeframe. In general, the ministry should be notified for situational awareness and coordination of the response and involve other relevant stakeholders to support the PHU. PHO should be contacted if scientific and technical advice is required, and/or to support interjurisdictional notifications.

Note: Appendix 1 of the Infectious Disease Protocol lists ‘probable’ and ‘confirmed’ as a case classification type, and not PUI, as is consistent with other reportable diseases.

Table 2: Public health unit reporting procedures

Issue	Reporting Method and Timeframe
The PHU (or any other health care provider) identifies an individual that meets the PUI case definition.	• Contact the ministry immediately via the Health Care Provider Hotline at 1-866-212-2272.
A laboratory test confirms a case is infected with a virus that causes VHF with person-to-person transmission.	• Contact the ministry-HSEMB immediately. • iPHIS data entry within 24 hours of notification. • Send an iPHIS referral to PHO with a scanned copy of the Viral Hemorrhagic Fevers Ontario Investigation Tool. • Contact PHO and provide the iPHIS case ID.
A contact of a probable or confirmed case is identified.	• iPHIS data entry within 1 business day.
A contact of a probable or confirmed case is identified as residing in another PHU's jurisdiction within Ontario.	• Contact PHO. • iPHIS referral within 1 business day.
A contact of a probable or confirmed case is identified as residing in another jurisdiction outside of Ontario	• Contact PHO immediately.
PHU unable to connect with a contact of a probable or confirmed case, or a contact of a high-risk returning traveller within a reasonable of timeframe and effort.	• Contact the ministry-HSEMB within 24 hours.
A contact with a high-risk of exposure will have contact with livestock or pets/companion animals during the monitoring period.	• Contact PHO within 24 hours.
A probable or confirmed case had contact with livestock or pets/companion animals prior to illness onset.	• Contact the ministry-HSEMB within 24 hours.

Issue	Reporting Method and Timeframe
A contact of an at-risk or high-risk exposure case presents unresolvable issues/challenges during the monitoring period.	• Contact the ministry-HSEMB within 1 business day of last attempt to resolve issue/challenge.
Any contact of a case who plans to travel (i.e., to another health unit, province, or country).	• Contact PHO within 1 business day once travel plans are known, or within 24 hours if travel is before the next business day.
A contact of a confirmed case has completed the monitoring period.	• iPHIS data entry within 1 business day.
A convalescent case is discharged from the hospital into the community.	• iPHIS data entry within 1 business day.

Appendix A: Potential Case Identification at the Border

The purpose of the federal *Quarantine Act* is to prevent the introduction and spread of communicable diseases in Canada. The Act designates PHAC Quarantine Officers and Screening Officers at points of entry to carry out health assessments, implement control measures, and coordinate public health actions to mitigate risks.

These authorities include:

- Screening travellers for symptoms of communicable diseases
- Ordering a traveller to undergo a medical examination
- Ordering a traveller to report to a local public health authority
- Ordering reasonable public health measures
- Collecting and sharing information with the local public health unit for case and contact management

In general, Quarantine Officers could be engaged in the following five scenarios related to VHF at ports of entry:

1. A symptomatic traveller that meets the case definition.
2. A death on board an aircraft or vessel.
3. Importation or exportation of human remains (cadaver or body parts) to/from Canada.
4. Arrival of a medical evacuation case to Canada (issuing and serving of a Quarantine Order if there is a risk of transmission to an infectious disease).
5. Assistance with securing the flight manifest of a probable or a confirmed case for follow up by the local public health unit.

Enhanced Measures:

Depending on the assessed risk of transmission, **enhanced measures** may be implemented at Canadian borders. These measures may include:

- Screening of travellers arriving from VHF-affected regions by Quarantine Officers
- Issuance of modified Orders to Report to local public health units
- Identification and notification of returning humanitarian or healthcare workers who were active in VHF-affected areas
- Enhanced cross-border communication under the International Health Regulations (IHR)
- Activation of medical evacuation protocols, when required

These enhanced activities align with PHAC's responsibility to notify public health partners promptly and respond effectively to communicable disease threats at ports of entry.

VHF related scenarios may trigger an elevated response in Ontario, including, but not limited to:

- Declaration of a Public Health Emergency of International Concern (PHEIC) by the World Health Organization due to a VHF pathogen
- Repatriation of Canadian humanitarian or healthcare worker requiring treatment for VHF-related infection
- Confirmed case of VHF in Canada from a returning traveller
- Detection of travel-related VHF cases in countries outside the primary outbreak region

These conditions reflect typical triggers for heightened preparedness, interagency coordination, and activation of provincial emergency protocols. Provincial measures may include, but are not limited to:

- Issuing directives or orders from the Chief Medical Officer of Health regarding public health precautions and procedures in accordance with the HPPA.
- Designating additional health care facilities in Ontario to take on VHF related roles (screening, testing, treatment, etc.).
- Designating paramedic services for the transport of persons under investigation and confirmed cases.
- Activating screening procedures in health care settings.

Appendix B: Overview of Public Health Unit Actions

Key Actions	Manage PUI	Manage probable or confirmed case	Manage convalescent case	Manage deceased case	Conduct risk assessment and monitor contacts
Tasks	☐ Review symptoms, in collaboration with Infectious Disease clinician ☐ Notify MOH of a PUI ☐ Provide IPAC advice to individuals being monitored ☐ Consult with relevant stakeholders (e.g., the ministry and PHO) ☐ Begin the Viral Hemorrhagic Fevers Ontario Investigation Tool ☐ Identify contacts††	☐ Complete and send the Viral Hemorrhagic Fevers Ontario Investigation Tool to PHO ☐ Identify contacts and conduct risk assessment and monitoring ☐ If there has been animal contact since symptom onset, contact the Public Health Veterinarian. ☐ Advise on environmental cleaning and disinfection of the case's home, work location, etc. ☐ Monitor case **daily** until discharge ☐ Inform discharge planning, in collaboration with the hospital	☐ Maintain contact, as required, with treating provider ☐ Provide guidance on reducing ongoing transmission risk from bodily fluids (e.g., semen, breastmilk) and contaminated materials ☐ Ongoing monitoring of the case	☐ Collaborate with the hospital (or location where the remains are being held) to develop a step- by-step process to guide the IPAC management of human remains ☐ Support the hospital (or location where remains are being held) to plan for a safe burial or cremation (as per O Reg. 557 under the HPPA)[13]	☐ Assess both returning travellers identified at ports of entry and household or other community contacts (including HCW contacts) for their risk of exposure (low risk, at risk or high risk) ☐ Manage and monitor individuals based on their risk level ☐ Report to the ministry and PHO, as required (e.g., if any of the contacts development relevant symptoms) ☐ Distribute necessary supports to contacts (e.g., oral thermometers)

NOTE: For transport of PUI patient samples from hospital or lab to PHO's laboratory, please contact PHO's laboratory to initiate the Emergency Response Assistance Plan (ERAP) protocol. Do not send the sample until PHO's laboratory has sent a confirmation. You must contact the PHO Laboratory Customer Service Centre at 416-235-6556/1-877-604-4567, after-hours 416-605-3113.

†† : Contact identification for PUI cases should proceed after discussion with the ministry and PHO, and in consultation with the attending clinician to ensure a high index of suspicion.

Appendix C: Probable or Confirmed Case Daily Clinical Update Worksheet

PHUs can use this form to capture information on the probable or confirmed case's clinical progress, while in the hospital and post discharge to the community. Once the monitoring period is complete, PHUs should update the information in the integrated Public Health Information System (iPHIS).

Case Information

Last Name:	First Name:	Date of Birth: *(yyyy/mm/dd)*
Facility name:	Admission date: *(yyyy/mm/dd)*	VHF Virus: Case Classification:

Daily Progress

Follow-up Date Time *(yyyy/mm/dd)*	**Name of person contacted** (e.g., the name of case, spouse, nurse)	**Clinical Course** (Please indicate clinical assessment, change in status, identification of additional contacts, transfers within the facility and other relevant details)	**Action Items**	**Person in health unit completing form**

Follow-up Date Time *(yyyy/mm/dd)*	**Name of person contacted** (e.g., the name of case, spouse, nurse)	**Clinical Course** (Please indicate clinical assessment, change in status, identification of additional contacts, transfers within the facility and other relevant details)	**Action Items**	**Person in health unit completing form**

Follow-up Date Time *(yyyy/mm/dd)*	**Name of person contacted** (e.g., the name of case, spouse, nurse)	**Clinical Course** (Please indicate clinical assessment, change in status, identification of additional contacts, transfers within the facility and other relevant details)	**Action Items**	**Person in health unit completing form**

Appendix D: Contact Identification Worksheet – Contacts by Name

PHUs can use this worksheet to identify contacts of probable or confirmed cases while they were symptomatic. PHUs may also use this worksheet to identify contacts of persons under investigation (PUIs) when there is a high degree of clinical suspicion. PHUs should consult with the ministry and PHO before initiating contact identification for PUIs.

PHUs should create an integrated Public Health Information System (iPHIS) contact record for each contact of a probable or confirmed case.

Date of Case's Symptom Onset *(yyyy/mm/dd)* VHF disease:

Contact name	Phone number or other contact information	Type of contact/exposure (e.g., how close, how long, how often, and in which setting)	Date of first contact/exposure since symptom onset (yyyy mm dd)	Date of last contact/ exposure since case symptom onset (yyyy mm dd)	Comments Risk Level Category (e.g. low, at-risk, high)

Appendix E: Contact Identification Worksheet – Contacts by Activity

PHUs can use this worksheet to identify contacts of probable or confirmed cases by considering each activity undertaken by the probable or confirmed case since symptom onset. PHUs may also use this worksheet to identify contacts of persons under investigation (PUIs) when there is a high degree of clinical suspicion – PHUs should consult with the ministry and PHO before initiating contact identification for PUIs.

PHUs should create an integrated Public Health Information System (iPHIS) contact record for each contact of a probable or confirmed case.

Date of Case's Symptom Onset *(yyyy/mm/dd)* VHF disease:

Activity	**Start Date Time End Date Time** *(yyyy/mm/dd)*	**Address of Activity**	**Contact Person for Activity** (Name and contact information)	**Contacts (within 1 metre)** (Name and Contact Information)	**Comments**

Activity	**Start Date Time End Date Time** *(yyyy/mm/dd)*	**Address of Activity**	**Contact Person for Activity** (Name and contact information)	**Contacts (within 1 metre)** (Name and Contact Information)	**Comments**

Appendix F: Contact Assessment and Monitoring Worksheet

Use this worksheet to gather information on a contact, assess their risk of exposure to a probable or confirmed case of VHF, and monitor symptoms of VHF during the monitoring period.

(1) Client Information	**VHF disease:**	□ **PHIPA**

Last name:_____ First name:_____

Date of birth: *(yyyy/mm/dd)*_____

Gender: □ Male □ Female □ Unknown □ Other

Primary address: _____ City _____

Province/Territory/Country Postal code

Secondary address: _____ City _____

Province/Territory/Country Postal code

(2) Administrative Information

Case manager: _____ Initials:	iPHIS ID#: _____
Diagnosing health unit: _____	Report date: *(yyyy/mm/dd)*
Responsible health unit: _____	Closed date: *(yyyy/mm/dd)* _____
Branch office: _____	Closed disposition: _____

(3) Notification Attempts

Date (yyyy/mm/dd)	**Time**	**Notification Method**	**Initials**
		□ Call □ Text □ Email □ Letter □ Home visit □ Other:	
		□ Call □ Text □ Email □ Letter □ Home visit □ Other:	
		□ Call □ Text □ Email □ Letter □ Home visit □ Other:	
		□ Call □ Text □ Email □ Letter □ Home visit □ Other:	

Client Name:	**Date of Birth:**	**iPHIS ID#:**	
(4) Travel history to an area affected by VHF (if applicable)			
City/ village/ country	Location in the city/village (hotel name & address, residence address, etc.)	Arrival date (yyyy/mm/dd)	Departure date (yyyy/mm/dd)
Date (yyyy/mm/dd):	**Time:**	**Initials:**	
(5) Exposure Information			
Date of earliest exposure: (yyyy/mm/dd)	Date of last exposure: (yyyy/mm/dd)	Date of most likely exposure: (yyyy/mm/dd)	
Please provide details of the exposure(s)/potential exposure(s):			
Exposure Risk Level Rating	□ Low Risk	□ At Risk	□ High Risk
Contact is an HCW: □ Yes □ No	If yes, was the employer notified? □ Yes □ No		
Date (yyyy/mm/dd):	**Time:**	**Initials:**	
Client Name:	**Date of Birth:**	**iPHIS ID#:**	

(6) Counselling	
□ Signs and symptoms □ Risk factors □ Disease transmission □ Incubation period □ Period of communicability □ Disease prevention □ Advice for seeking medical care Additional behaviour modification recommendations provided as per risk exposure level: □ Yes □ No	Monitoring period: (yyyy/mm/dd) _____ To _____ Exclusion dates: (yyyy/mm/dd) _____ To _____
Date (yyyy/mm/dd): **Time:** **Initials:**	

(7) Contingency Plans for Exposed Symptomatic Individuals

Closest Designated Hospital:

Contact person: Phone number: Email:

Infectious Disease Clinician:

Contact person: Phone number: Email:

Paramedic Services:

Contact person: Phone number: Email:

Additional Contingency Plan Details:

Dates in Hospital: (yyyy/mm/dd)	Outcome: □ VHF virus test - not done □ VHF virus test - negative □ VHF virus test - positive, see Case Report Form
Date (yyyy/mm/dd): **Time:** **Initials:**	

(8) Active Monitoring	Client Name								Date of Birth:											iPHIS ID#:		
Symptoms (Check all that apply)																					Comments/Action Items	Initials
Date yyyy/mm/dd	# of days since last exposure	Temperature Reading A.M.	Temperature Reading P.M.	Abdominal pain	Chest pain	Conjunctival injection or bleeding (red eye)	Cough	Diarrhea (including bloody)	Fatigue, malaise, or lethargy	Documented fever ≥ 38.0°C/ 101.4°F	Feeling feverish or having chills	Severe headache	Hemorrhagic or purpuric rash	Myalgia (muscle pain)	Nausea	Pharyngitis (sore throat)	Vomiting or hematemesis	Other unexplained bleeding or hemorrhage (e.g., ecchymoses, epistaxis, gingival bleeding, hemoptysis, rectal bleeding)	Other symptoms (specify)		

Appendix G: Temperature and Symptom Reporting Form for Contacts

After your departure from the VHF-affected area or from the last date of exposure to a PUI, probable, or confirmed case of VHF, monitor your temperature and symptoms for the duration of your monitoring period.

VHF disease: _____

Monitoring Period (yyyy/mm/dd) **From _____ To_____**

1. Monitor your temperature

Check your temperature orally (i.e., using a thermometer placed under your tongue) twice daily and record the results using the Monitoring Period Temperature and Symptom Reporting Form. Do not share your thermometer with others.

- If possible, do not take any medications that can reduce fever such as acetaminophen or ibuprofen. Consult with your health care provider or pharmacist if you are uncertain.

2. Monitor for any sign or symptom suggestive of VHF:

- abdominal pain
- chest pain
- conjunctival injection or bleeding (red eye)
- cough
- diarrhea (can be bloody)
- fatigue, malaise, or lethargy (e.g., discomfort, tired)
- documented fever ≥ 38.0°C (101.4°F) using an oral thermometer
- feeling feverish or chills
- severe headache
- rash with small reddish-purple spots under the skin
- myalgia (muscle pain)
- nausea
- pharyngitis (sore throat)
- vomiting (can be bloody)
- weakness
- other unexplained bleeding or hemorrhage (e.g., easy bruising, nosebleed, bleeding from gums, coughing up blood, blood in stool)

If you develop a fever (i.e. an oral temperature of 38.0°C/101.4°F or higher) and or any other symptoms suggestive of VHF:

- Avoid direct physical contact with others.
- If you are being monitored by your local Public Health Unit (PHU), contact your PHU to update/inform of your symptoms. To find your PHU, call Service Ontario at 1-866-532-3161 or visit the public health unit locator.
    - If you are unable to speak with someone at the PHU, call 9-1-1 for paramedic services and advise them of your symptoms and travel history.
    - Do not take a private vehicle or public transportation (including a taxicab).

REPORTING FORM: Monitoring Period Temperature And Symptom

Day	Date (yy/mm/dd)	Temp #1 (AM)	Temp #2 (PM)	**Symptoms may include** abdominal pain, chest pain, conjunctival injection or bleeding (red eyes), cough, diarrhea (may be bloody), fatigue, malaise, or lethargy, documented fever ≥ 38.0 °C (101.4 °F), feeling feverish or having chills, severe headache, myalgia (muscle aches and pain), nausea, pharyngitis (sore throat), rash (including small reddish-purple spots under the skin), vomiting (may be bloody), weakness, unexplained bleeding or hemorrhage (easy bruising, nosebleeds, bleeding from gums, coughing up blood, or blood in stool).
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				

Day	Date (yy/mm/dd)	Temp #1 (AM)	Temp #2 (PM)	**Symptoms may include** abdominal pain, chest pain, conjunctival injection or bleeding (red eyes), cough, diarrhea (may be bloody), fatigue, malaise, or lethargy, documented fever ≥ 38.0 °C (101.4 °F), feeling feverish or having chills, severe headache, myalgia (muscle aches and pain), nausea, pharyngitis (sore throat), rash (including small reddish-purple spots under the skin), vomiting (may be bloody), weakness, unexplained bleeding or hemorrhage (easy bruising, nosebleeds, bleeding from gums, coughing up blood, or blood in stool).
18				
19				
20				
21				

References

1. American Public Health Association (APHA). Control of communicable diseases manual. 21st ed. Washington, DC: APHA Press; 2022.

2. BC Centre for Disease Control (BCCDC). Viral hemorrhagic fevers [Internet]. Vancouver, BC: BCCDC; 2024 [cited 2026 May 25]. Available from: https://www.bccdc.ca/health-professionals/clinical-resources/case-definitions/viral-hemorrhagic-fevers

3. Centers for Disease Control and Prevention (CDC). Viral hemorrhagic fevers (VHFs) [Internet]. Atlanta, GA: CDC; 2024 [cited 2026 May 25]. Available from: https://www.cdc.gov/viral-hemorrhagic-fevers/about/index.html

4. Ontario. Ministry of Health. Ontario public health standards: requirements for programs, services, and accountability. Infectious diseases protocol, 2023. Toronto, ON: King's Printer for Ontario; 2023. Available from: https://www.ontario.ca/page/ontario-public-health-standards-requirements-programs-services-and-accountability#section-1

5. Ontario. Ministry of Health. Ontario public health standards: requirements for programs, services, and accountability. Infectious diseases protocol. Appendix 1: case definitions and disease specific information. Disease: Viral hemorrhagic fevers caused by i) Ebola virus, ii) Marburg virus, iii) Lassa virus, or (iv) Other viral agents including arenaviruses, bunyaviruses, filoviruses, and flaviviruses. Effective: September 2025 [Internet]. Toronto, ON: King's Printer for Ontario; 2025. Available from: https://www.ontario.ca/page/ontario-public-health-standards-requirements-programs-services-and-accountability#section-2

6. International Committee on Taxonomy of Viruses (ICTV). ICTV official taxonomic resources [Internet]. [Washington, DC]: ICTV; c2026 [cited 2026 May 25]. Available from: https://ictv.global/

7. Public Health Agency of Canada. National case definition: viral hemorrhagic fever [Internet]. Ottawa, ON: Government of Canada; 2008 [modified 2020 Jan 27; cited 2026 May 25]. Available from: https://www.canada.ca/en/public-health/services/diseases/viral-hemorrhagic-fever/health-professionals/national-case-definition.html .

8. World Health Organization (WHO). Viral haemorrhagic fever [Internet]. Geneva: WHO; 2025 [cited 2026 May 25]. Available from: https://www.afro.who.int/health-topics/viral-haemorrhagic-fever

9. *Health Protection and Promotion Act*, RSO 1990, c H.7. Available from: https://www.ontario.ca/laws/statute/90h07#B

10. RRO 1990, Reg 569. Available from: *https://www.ontario.ca/laws/regulation/900569*

11. RRO 1990, Reg 135/18. Available from: https://www.ontario.ca/laws/regulation/180135 .

12. Basler C. Molecular pathogenesis of viral hemorrhagic fever. Semin Immunopathol. 2017;39(5):551-61. Available from: https://doi.org/10.1007/s00281-017-0637-x

13. RRO 1990, Reg 557. Available from: https://www.ontario.ca/laws/regulation/900557

14. Mangat R, Louie T. Viral hemorrhagic fevers. Treasure Island, FL: Stats Pearl Publishing; 2026. Available from: https://www.ncbi.nlm.nih.gov/books/NBK560717/

15. Mariappan V, Prateesh P, Shanmugam L, Rao SR, Pillai AB. Viral hemorrhagic fever: molecular pathogenesis and current trends of disease management – an update. Curr Res Virol Sci 2. 2021;100009. Available from: https://doi.org/10.1016/j.crviro.2021.100009

16. UK Health Security Agency. Viral haemorrhagic fevers: origins, reservoirs, transmission and guidelines [Internet]. London: Crown copyright; 2014 [updated 2025 Jul 30; cited 2026 May 25]. Available from: https://www.gov.uk/guidance/viral-haemorrhagic-fevers-origins-reservoirs-transmission-and-guidelines

Ontario