

# Provincial Infection Prevention and Control Guidance for the Management of a High Threat Pathogen in Acute Care Settings

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## Contents

Provincial Infection Prevention and Control Guidance for the Management of a High Threat Pathogen in Acute Care Settings .....	1
Acknowledgement .....	4
Guideline Approval .....	4
Document Version .....	4
Abbreviations .....	5
Introduction .....	5
High Threat Pathogens.....	6
Viral Hemorrhagic Fevers.....	6
Unknown/Newly Emerging Pathogens .....	7
Definitions.....	7
BC’s Tiered System for Health care Facilities .....	8
Planning and Preparedness.....	8
Organizational risk assessment.....	8
Training of personnel .....	10
Response - Screening and Triage Assessment .....	10
Initial Assessment .....	10
Patient Management .....	11
1. Patient had NO exposure within past 21 days, AND.....	11
2. Patient had known exposure within the past 21 days, AND.....	11
Testing.....	13
Additional Precautions for HTP .....	14
Patient Placement.....	16
Patient Transfer .....	17
Patient Psychological Health and Wellbeing.....	18
Management of Visitors or Support Persons.....	19
Discontinuation of Precautions.....	19
Equipment Cleaning and Disinfection.....	19
Room Cleaning and Disinfection .....	20

Staff Management .....	20
Exposures or Breaches (Potential or Known) & Reporting .....	21
Staff Psychological Health and Resilience .....	21
Management of Human Remains .....	21
Management of Close Contacts .....	22
Laboratory Guidance .....	22
Calling the Medical Health Officer .....	23
Reportable disease requirements .....	23
References .....	24
Key Resources .....	26
Disease-specific information .....	26
Other HTP resources .....	26
Psychological health and wellness resources .....	26
Appendix A: Example Sign In/Sign out Tracking Log .....	27

## Acknowledgement

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- Provincial Infection Prevention and Control/Workplace Health & Safety COVID-19 Working Group
- BC Biocontainment Unit
- Communicable Disease Medical Health Officer group
- Public Health Response, BC Centre for Disease Control
- Office of the Provincial Health Officer

We also acknowledge and thank our patient partner, whose perspective and feedback from a patient, family and visitor lens were essential in shaping this guideline.

## Guideline Approval

Approval From	Date
Office of the Provincial Health Officer, Public Health Response, and the BC Centre for Disease Control	October 18, 2024

## Document Version

Document Version	Summary of Major Changes
June 1, 2026	<ul style="list-style-type: none"> <li>• Updated “Management of Human Remains” section to “Management of Deceased Persons” to correspond with updated terminology.</li> <li>• Updated resources and links to relevant documents.</li> </ul>
March 2, 2026	<ul style="list-style-type: none"> <li>• Revised recommendations for the “Patient Management” and “Additional Precautions for HTP” sections.</li> <li>• Updated resources and links to relevant documents.</li> <li>• Updated Medical Health Officer contact list.</li> </ul>
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## Abbreviations

AIIR	airborne infection isolation room
AGMP	aerosol generating medical procedure
BCCDC	BC Centre for Disease Control
DA	doffing assistant
DIN	drug identification number
ECP	exposure control plan
HA	health authority
HCW	health care worker
HTP	high threat pathogen
IPC	infection prevention and control
MM	medical microbiologist
MHO	medical health officer
NML	National Microbiology Lab
ORA	organizational risk assessment
PCRA	point-of-care risk assessment
PHAC	Public Health Agency of Canada
PPE	personal protective equipment
PWHCC	Provincial Workplace Health Call Centre
SOP	standard operating procedure
TO	trained observer
UPCC	urgent and primary care centre
VHFs	viral hemorrhagic fevers
WHS	workplace health and safety
WHO	World Health Organization

## Introduction

This document provides guidance on preparedness for high threat pathogens (HTPs) for all acute care settings, including emergency departments and outpatient/ambulatory care within acute care facilities, as well as health authority (HA) operated urgent and primary care centers (UPCCs). This includes guidance for the safe assessment and management of individuals who present with a suspected or confirmed HTP. The actions taken based on these guidelines are with the purpose/intention of limiting the public and health care workers' (HCWs) exposure to HTP within British Columbia (BC) health authorities (HAs).

Due to the broad range of acute and urgent care settings in BC, this guideline is intended to be a provincial resource and should be applied and adapted to each specific setting/organization.

For non-health authority-operated UPCCs, refer to the [Provincial Infection Prevention and Control Guidance for the Management of a High Threat Pathogen in Community-based Clinic Settings](#).

For the purpose of this guidance and in the context of BC, a HTP is defined as:

- Viral hemorrhagic fevers (VHFs) [these include Ebola, Lassa, Marburg, and Crimean Congo Hemorrhagic Fever]; or
- Unknown/newly emerging pathogens that are transmissible from human to human.

The following are factors to consider when determining whether a pathogen is high threat to humans:

i) Disease-related factors:

- Significant risk/consequence to humans and is associated with a high morbidity and/or mortality.
- High transmissibility and likelihood of secondary cases.
- There may not be an effective vaccine, prophylaxis, or treatment.

ii) Practice-related factors:

- Specific infection prevention and control (IPC) measures are required in addition to implementation of droplet and contact and airborne precautions, depending on disease progression.
- Absence of existing guidance.
- Potential use of a biocontainment unit due to clinical or public health concerns.

**Note:** Pathogens known to transmit from animals to humans may evolve in the future to transmit from human-to-human. Therefore, the pathogens included in the scope of this guidance could change as new information becomes available.

While the probability of a HTP occurring in BC is low, preparedness is essential to ensure those

working in acute care settings can safely and effectively care for patients who may present with associated symptoms and risk-factors and implement pre-exposure measures (if available) to prevent infection or disease in others (e.g., vaccines, pre-exposure prophylaxis)

Effective preparedness requires administrative and engineering controls, clear guidance, tools (e.g., algorithms, checklists) and clinical processes, appropriate personal protective equipment (PPE) supply and deployment, and awareness and training for staff in both the processes and equipment.

**All health authorities and facilities are responsible for implementing the recommended practices described below to ensure readiness for managing patients with suspected or confirmed HTPs.**

***The recommendations and information contained in this document are subject to change as new evidence emerges.*** For supplementary information, see the BCCDC [High Threat Pathogens website](#) and [Key Resources](#) section below.

## High Threat Pathogens

### Viral Hemorrhagic Fevers

#### *Transmission*

Transmission of viruses causing VHF generally occur via zoonotic transmission through direct contact with infected animals (e.g., rodents) and/or ticks, or person to person via direct or indirect contact through broken or non-intact skin or mucous membranes with blood, body fluids, respiratory secretions, or tissues of an infected person or medical equipment that is contaminated with infected body fluids. For some VHF, nosocomial transmission through percutaneous contact/injury or aerosol exposure (through AGMP) has been documented.<sup>1,2</sup>

The infectious dose for some VHF is very low.<sup>3-5</sup> Severe illness is strongly associated with high levels of virus production. The risk of exposure to blood or other body fluids and the opportunity for transmission increases as the patient's condition deteriorates, requiring invasive medical care. VHF are not generally transmissible before the individual develops symptoms.

#### *Incubation Period*

The incubation period (time from exposure to onset of symptoms) varies for each VHF and ranges from 2 to 21 days. For asymptomatic individuals who may have been exposed more than 21 days ago, VHF generally do not need to be considered in the differential diagnosis.

#### *Clinical course*

VHF can cause a severe, often fatal, acute viral infection that causes hemorrhagic fever in humans and animals. The case-fatality rate for VHF varies depending on the specific pathogen (Crimean Congo Hemorrhagic Fever (CCHF): between 4-60%<sup>6-9</sup>; Ebola: between 25-100% depending on species<sup>3,10</sup>; Lassa: 1-2% in endemic areas, higher in pregnant women (30%) and hospitalized individuals (generally 15-20%, can reach 50% during epidemics)<sup>4,11</sup>; and Marburg: between 23-90%.<sup>5-12</sup>

For more information on VHFs, see disease-specific information on the US Centre for Disease Control [Viral Hemorrhagic Fevers](#) website and [Key Resources](#) section below.

## Unknown/Newly Emerging Pathogens

Once a health threat from an unknown or newly emerging pathogen(s) has been identified, the World Health Organization (WHO), the Public Health Agency of Canada (PHAC) and other responsible organizations will communicate specific details to appropriate health care providers to safely manage potential patients and ensure staff and patient safety. These details will outline what is known regarding transmission and symptoms. ***All must be aware that the situation may evolve as more is learned.***

## Definitions

- **Hot Zone or Patient Room:** a space that is known or suspected to be contaminated and has a high risk of exposure to an HTP. The patient's room is a well-ventilated, controlled-access room where a patient with suspected or confirmed HTP resides/is located and receives treatment, e.g., a single room or airborne infection isolation room (AIIR).
- **Warm Zone or Quarantine room/area:** a space that is considered to have a moderate risk of exposure to a HTP and is a well-ventilated, controlled-access room or designated area, preferably adjacent to the patient room. This area is used as the designated PPE doffing area and may be used for quarantine or transfer of contaminated equipment (used in the patient room) as part of the cleaning and disinfection process, if required.
- **Cold Zone room/area:** this area represents the clean location where there is low potential for HTP contaminants to be present. This area is used as the designated PPE donning area (e.g., anteroom) and is the area from where the Trained Observer will be located to monitor and document correct donning and doffing of PPE (doffing is occurring in the quarantine area only). Clean PPE will be stored in this room/area.
- **Health-care worker (HCW):** for the purpose of this guidance, this refers to individuals providing or supporting health-care services for patients with suspected or confirmed HTP. This includes, but is not limited to emergency service providers, physicians, nurses, laboratory personnel, respiratory therapists and other allied health professionals, support services (e.g., housekeeping, dietary, maintenance).
- **Organizational risk assessment (ORA):** Assessment done by organizations/institutions to identify and evaluate the risk of exposure to infectious agents in the healthcare environment and to implement appropriate control measures (e.g., communicable disease safety plan) according to the hierarchy of controls to minimize the risks.
- **Trained Observer (TO):** HCW who provides guidance and documentation of donning and doffing procedures to ensure adherence to PPE protocols when HCW are managing patients with suspected or confirmed HTP. See [Additional Precautions](#) section below for more information on the role of the TO.

- **Doffing Assistant (DA):** HCW who assists with doffing of PPE to minimize likelihood of an error or breach in protocol that could lead to inadvertent exposure to HTP. See [Additional Precautions for HTPs](#) section below for more information on the role of the DA.

## BC's Tiered System for Health care Facilities

The provincial strategy for providing care for patients with a suspected or confirmed HTP is based on a three-tier model, with specific roles for facilities at each level or type. Briefly,

- Type One facilities will assess, stabilize, and transfer patient with suspected HTP.
- Type Two facilities will provide confirmatory testing, short term treatment and transfer to provincial designated facility.
- Type Three facilities will accept patients with suspected or confirmed HTP and provide ongoing care.

For more information, see the [BCCDC High Threat Pathogens](#) webpage.

## Planning and Preparedness

- **All health authorities and facilities are responsible for implementing the recommended practices described below to ensure readiness for managing patients with suspected or confirmed HTPs.**
- Ensure an exposure control plan (ECP) is in place that details exposure prevention and IPC measures to be used in healthcare facilities. For additional information on how to mitigate HCW exposure to HTPs within health authorities, please refer to the [Provincial High Threat Pathogen Exposure Control Plan](#).

## Organizational risk assessment

An organizational risk assessment (ORA) is essential for evaluating the [hierarchy of controls](#) to minimize risk of exposure to and transmission of microorganisms within healthcare settings. Conducting an ORA will help the facility identify the effectiveness of present control measures and the breadth of the hierarchy of controls to prevent transmission of HTPs.

The ORA as it relates to HTPs should be conducted on a regular basis by each health-care facility. ORA frequency is determined by the following:

- Global epidemiological context of HTPs.
- The organization's probability of receiving a patient with a suspected or confirmed HTP.
- The organization's ability to maintain readiness and competency for HTP-related interventions and activities (i.e., HTP-specific PPE training, HTP-specific PPE stockpile, etc.).

Consider developing setting-specific standard operating procedures (SOP) that include setting-specific processes and established roles and responsibilities.

Considerations for an ORA to manage a patient with HTP include:

### Identification and coordination

- Identify where patients with a HTP are likely to present and receive care.
- Identify how multiple patients will be handled at once for screening or inpatient treatment.
- Patient placement should be planned in advance as a component of the ORA in consultation with clinical operations, IPC and workplace health and safety (WHS).
- Develop a plan for how patients who present with suspected or confirmed HTP will be managed, until they can be transported to an appropriate facility (Type 2 or Type 3) for further assessment/care.
- Identify HCW who will have a lead role in HTP response and who are most likely to come into contact with patients with a HTP and/or the patient's environment.
- Establish roles and responsibilities for all HCW involved in the care of patient with an HTP.
- Identify transmission risks related to HCW to establish specific job tasks that have a potential for occupational exposure.
  - Consider using the *HCW Risk Assessment Rationale, Process and Determination* available in the [Provincial High Threat Pathogen Exposure Control Plan](#)
- Ensure a comprehensive HTP PPE program is in place, including education, training, and repeated observed practice on selection and use of specific PPE by HCWs.
- Develop a plan for how support person(s) accompanying the patient will be managed.

### Admission procedures

- Develop a plan for the location where patients presenting with a suspected or confirmed HTP will be admitted (i.e., availability of patient room and/or airborne infection isolation room (AIIR), quarantine room/area), if transfer is not required, in consultation with clinical operations, IPC and WHS.
  - Consider admitting patients with suspected or confirmed HTP to a critical care unit where IPC requirements can be met, given the risk of progression to critical illness, to minimize the risk of room relocation.
  - Prioritize placement in an AIIR for patients that present as clinically unstable and for patients admitted to hospital for suspected or confirmed HTP.
  - In consultation with Facilities Maintenance and Operations (FMO) and local IPC teams, consider if modified structures, such as constructing temporary walls/barriers, will be required to effectively isolate the patient and prevent transmission of disease, e.g., if there is no anteroom or negative pressure room available.

### Notification

- Develop a plan and procedures for notification and engagement of additional partners for safe provision of care (e.g., BC Biocontainment Leadership)

## Training of personnel

Prior to providing care for a patient with known or suspected HTP, HCWs must be trained in necessary IPC procedures to ensure care can be provided safely. This includes laboratory staff (if responsible for collecting samples), medical imaging staff, environmental services (EVS)/housekeeping staff, and others. All health authorities and facilities are responsible to ensure the following:

- HCWs receive training on selection and specific donning and doffing procedures for HTP PPE. See [Key Resources](#) section for resources on donning (putting on) and (doffing) taking off PPE.
- HCWs receive training on requirements for cleaning and disinfection of medical equipment, surfaces, and waste management in the context of HTPs.
- There are regular opportunities for training and practice, such as simulation exercises, to maintain proficiency and readiness among care teams. The training includes hands on practice with doffing PPE for HCWs providing patient care, the Doffing Assistant as well as the Trained Observer. Refer to the [Provincial High Threat Pathogen Exposure Control Plan](#) for more information on frequency of training and documentation requirements.

Online training is available at the following:

- The LearningHub
  - [Infection Control Precautions for High Threat Pathogens](#)
  - [Infection Control Precautions for High Threat Pathogens \(PAPR\)](#)
  - [Biocontainment Cleaning for High Threat Pathogens \(EVS/Housekeeping\)](#)
  - [Biocontainment Cleaning of Medical Equipment for High Threat Pathogens](#)
- As well, at each health authority's training management system.

## Response - Screening and Triage Assessment

**While obtaining a travel history is an important part of clinical care, this guideline *does not suggest* that every patient calling or presenting should be queried about potential exposure to a HTP. In the event there is imminent risk of a HTP presenting in BC, a directive will be communicated from the Office of the Provincial Health Officer to inform health system partners/organizations of this risk and to provide guidance, including the requirement to implement the IPC measures outlined in this guidance document on a broader scale.**

### Initial Assessment

- A patient with a suspected or confirmed HTP may present at any facility tier level and the highest level of precautions available at that facility should be implemented until the patient can be moved to the most appropriate unit/facility for their care.
- Assess risk for exposure to a HTP, such as a VHF, in conjunction with the presence of signs and symptoms. ***The factors listed below are relevant to VHFs and may need to be adapted for unknown or newly emerging pathogens as new information becomes available.***

- Indication of potential exposure, signs and symptoms may include the following:
  - History of travel to region with active transmission,
  - Contact with blood, and body fluids or human remains of a person with a suspected or confirmed HTP (e.g., household, community or occupational contact),
  - Contact with live or deceased animals known or suspected to have HTP,
  - Notification to self-monitor for HTP by public health or other authorities,
  - Presence of signs and symptoms of HTP, such as fever greater than 38 degrees Celsius, malaise, myalgia, headache, arthralgia, fatigue, loss of appetite, conjunctival redness, sore throat, chest pain, abdominal pain, nausea, vomiting, diarrhea that can be bloody, hemorrhage, or erythematous maculopapular rash on the trunk.
- If these parameters are met, consult IPC, medical microbiology (MM), infectious diseases and public health. See section [below](#) for more information on requirements for notification and further risk assessment.
- Refer to the [Emergency Department High Threat Pathogen \(HTP\) Risk Assessment Algorithm](#) for a reference guide on triage and screening.

## Patient Management

***The information provided in this section is relevant to VHF and will need to be adapted for unknown or newly emerging pathogens as new information becomes available.***

Patient management is based on findings from the initial risk assessment, which determines whether the patient was exposed, and their presenting signs and symptoms, and the facility tier level providing patient care (based on [BC's Tiered System](#) described above). Based on these factors, patients will be managed in the following way:

1. Patient had NO exposure within past 21 days, AND:
  - a. The patient does not have any signs or symptoms consistent with VHF, continue with routine triage process and patient care.
  - b. The patient has signs or symptoms consistent with VHF, routine assessment protocols should be followed to evaluate their symptoms for another illness or infectious diseases (e.g., malaria, meningitis, dysentery, typhoid fever, tuberculosis, measles, gastroenteritis).
2. Patient had known exposure within the past 21 days, AND:
  - a. The patient does not have signs or symptoms consistent with VHF, continue with routine triage process and patient care.
    - Advise the patient that Public Health staff will contact them to evaluate their risk and provide advice about monitoring their health and steps to take if symptoms develop.

- Call the medical health officer (MHO) to arrange for follow up and provide them with the patient contact information (name, phone numbers, email, street address, and emergency contact).
- b. The patient has signs and/or symptoms consistent with VHF. Implement the following:
  - Immediately follow HTP precautions and put on PPE. Follow [PPE recommendations](#) described in the section below.
    - **Note:** *For streamlined decision-making, PPE recommendations are consistent regardless of patient clinical presentation.*
  - Support patient to perform hand hygiene and wear a medical mask, if tolerated.
  - If the clinical assessment suggests they have contaminated clothing (e.g., vomiting, diarrhea, visible soiling), provide them with a gown to cover their clothing. Assist patient with containing bodily fluids, if necessary (e.g., provide emesis basin).
  - **Patient placement:** patient(s) and their support person/visitor (if present) should not sit in the general waiting room/area.
    - Immediately place the patient in a private examination room (with a private bathroom, if available) or designated assessment area separated from other patients.
    - Allow accompanying persons to remain with the patient until assessment is completed. See section on [Management of Essential Visitors or Support Persons](#) for more information.
    - Clear the room of removable items prior to patient entering room to reduce cleaning requirements later (e.g., records, instruments, etc.).
    - If a dedicated bathroom is not available, provide a commode or urinal.
  - If the patient had contact with desk area or chair at triage, clean and disinfect using products that have a Health Canada Drug Identification Number (DIN) with broad spectrum virucidal and/or specific HTP (if pathogen is known) claims.
  - **Immediately notify emergency physician (if assessment is done by triage nurse) or patient's most responsible physician (if assessment is done in outpatient setting). Additionally, notify the charge nurse, local IPC, medical microbiology (MM), infectious diseases. Consult MHO on an urgent basis** to assist with further risk assessment and care planning.
    - The BCCDC Public Health Laboratory (PHL) MM on call will be notified for review of risk factors.
    - If suspicion remains high following the initial consultation, a broader discussion including the Provincial Health Officer, for further assessment of risk factors and need for HTP testing will be convened.
    - If it is determined that HTP testing is warranted, the BCCDC PHL MM on call will initiate the Emergency Response Action Plan for patient samples sent out for

testing.

- Follow health authority procedures for notification and engagement of additional partners for safe provision of care (e.g. BC Biocontainment Leadership)

## Testing

- Ensure patients with symptoms are assessed in a timely manner for HTPs and for other alternative or co-existing potential infections (e.g., malaria, meningitis, dysentery, typhoid fever, tuberculosis, measles, gastroenteritis, or other VHF).
  - **Ensure testing for malaria is initiated immediately for any febrile traveler who has recently arrived from a region of concern, recognizing malaria can progress rapidly.**
  - **Please note, the BCCDC Medical Microbiologist on-call must be notified of all VHF testing requests.**

## Additional Precautions for HTP

When HTP risk is identified, appropriate IPC precautions, in addition to routine practices, must be instituted according to the **zone** (hot, warm or cold) in which the individual is working and the specific **role** they have on the health care team providing care to the HTP patient. In addition to zone and role considerations, IPC measures should be informed by the patient’s clinical presentation and status, the risk for transmission, and one’s point-of-care risk assessment (PCRA). Focus clinical management and assessment on essential activities as directed by IPC, infectious diseases, MM and the MHO.

- Implement HTP precautions for patients with suspected or confirmed HTP.

### *Personal Protective Equipment (PPE) Recommendations for HTP*

Recommended PPE must be worn according to the zone in which the individual is working and their designated role on the health care team. PPE requirements are defined as follows:

Category	PPE Required
Trained Observer (or any other supporting staff) in the Cold Zone	<ul style="list-style-type: none"> <li>• No PPE is required within the Cold Zone</li> </ul>
Doffing Assistant in the Warm Zone (doffing area)	<ul style="list-style-type: none"> <li>• Fluid-impermeable gown (sufficient in length to reach mid-calf)</li> <li>• Two pairs of extended cuff nitrile gloves (inner and outer gloves, first inner pair under gown cuff, second outer pair over gown cuff)</li> <li>• Surgical cap</li> <li>• Medical mask</li> <li>• Full face shield</li> </ul>

	<ul style="list-style-type: none"> <li>• Fluid-impermeable knee-high leg and foot coverings</li> </ul>
<p><b>Health Care Worker in the Hot Zone (patient care area)</b></p>	<ul style="list-style-type: none"> <li>• Disposable scrubs</li> <li>• Fluid-impermeable gown (sufficient in length to reach mid-calf) or coveralls</li> <li>• Two pairs of extended cuff nitrile gloves (inner and outer gloves, first inner pair under gown cuff, second outer pair over gown cuff)</li> <li>• A third pair of extended cuff nitrile gloves (specifically for direct patient care)</li> <li>• Respiratory protection (N95 respirator or powered air purifying respiratory [PAPR])</li> <li>• Surgical cap</li> <li>• Fluid-impermeable hood with full face shield or PAPR hood</li> <li>• Foot protection (fluid-impermeable knee-high leg and foot coverings or rubber boots)</li> <li>• Apron</li> </ul>

**Note: The information provided here is based on the presentation of VHFs and may need to be adapted for unknown of newly emerging pathogens as new information becomes available.**

Consult IPC when there is global risk to support assessment.

- Ensure that areas for donning and doffing are separate from the patient care room/area and that there is a predominantly one-way flow of movement of HCWs from the donning area to the patient care room/area to the doffing area.
  - Ensure that the doffing area is large enough to allow freedom of movement for safe doffing, space for waste containers, a new glove supply, and alcohol-based hand rub (ABHR) for use during the doffing process.
  - For information on donning and doffing PPE, including checklists and posters, please refer to the [Key Resources](#) section and the [Provincial High Threat Pathogen Exposure Control Plan](#).
- All PPE poses a risk for self-contamination during doffing. To ensure safe use, removal and disposal of PPE, assistance from a designated Doffing Assistant (DA) and instructions from a designated Trained Observer (TO) using standardized checklists are required.
  - Removal of PPE presents a high risk for self-contamination if not done properly and requires a structured and monitored process that must be done slowly and deliberately.
  - If a breach in PPE occurs, the HCW should stop patient care, initiate PPE removal process, and then leave the patient room. See section on [Exposures or Breaches \(Potential or Known\) & Reporting](#) below for more information.
- Only trained essential personnel wearing appropriate PPE should enter the patient room.

- Where possible, group patient care tasks to minimize number of entries/exits into the patient room, while still prioritizing patient care.
- Where possible, avoid performing AGMPs for patients with suspected or confirmed HTP. If an AGMP is medically necessary, follow PPE requirements for patients with confirmed HTP.
  - AGMPs should be performed in AIIR (also referred to as a negative pressure room). If unavailable, a single/private room located furthest away from other patients, visitors and HCWs should be used with the door closed.
  - Only essential personnel wearing appropriate PPE should be present during the AGMP.
- Although VHF are not considered airborne diseases, a fit-tested N95 respirator or equivalent is recommended for all patients with a **confirmed HTP (including VHF) or suspected HTP and who are clinically unstable**. Because the level of care may change unexpectedly for these patients, there may not be sufficient time to leave the room to don appropriate PPE if an AGMP is necessary.
- Some facilities may choose to use powered air purifying respirators (PAPRs), based on length of time the HCW is in the patient room and their comfort for the duration. However, these are not required for direct care of patients with suspected or confirmed HTP.
  - Removal of PAPRs poses a recognized potential risk for self-contamination if worn by HCWs who are not adept at their use and removal<sup>13-15</sup>. Effective cleaning of reusable components of the equipment requires multiple steps. Therefore, PAPRs should only be used by HCWs with adequate training in their use and removal.
  - Refer to LearningHub module [Infection Control Precautions for High Threat Pathogens \(PAPR\)](#) for training on the use of a PAPR for HTPs.

#### *Role of the Doffing Assistant (DA):*

- In the **warm zone**, the DA's role is to minimize likelihood of an error or breach in protocol that could lead to inadvertent exposure through the following:
  - Communicating with the TO.
  - Assisting with PPE removal (e.g., hood removal/unfastening for PAPR and removal of coveralls or gowns), doffing of multiple HCWs.
  - Participating in cleaning and disinfection, and management of waste removal and reusable equipment.
  - Providing additional assistance for patient care if needed. If this is anticipated, the DA should be wearing the same PPE as the HCW providing patient care.
  - Refer to the [Provincial High Threat Pathogen Exposure Control Plan](#) for more information on PPE requirements for the DA.

#### *Role of the Trained Observer (TO):*

- In the **cold zone**, the TO will guide and document donning and doffing procedures to ensure adherence to PPE protocols through the following:

- Monitor and observe whether appropriate PPE is selected, and the order and method of donning and doffing is correct.
- Complete required documentation, e.g., reads aloud step-by-step instructions while filling in donning/doffing checklists, notes any breaches in PPE.
- Recommend corrective action when necessary (e.g., if PPE becomes dislodged)
- Generally, the TO should **not** provide physical assistance during doffing, which would require direct contact with potentially contaminated PPE in the warm zone.
  - If there is no DA, and assistance from the TO is needed, a risk assessment for exposure must be conducted to determine and don the required PPE to be worn by the TO to safely assist the HCW.
  - The TO is required to wear PPE, if they are present in the PPE removal area (warm zone) during the doffing process.

## Patient Placement

- As indicated above, patient placement should be planned in advance as a component of the ORA in consultation with clinical operations and IPC.
- Prioritize placement in an AIIR, if available, for patients presenting clinically unstable or who are anticipated to quickly decompensate and for patients admitted to hospital with suspected or confirmed HTP.
  - Where an AIIR is physically within the department but occupied, this will mean moving patients to make it available for the patient with a HTP.
  - If there is no AIIR available in the department designated through the ORA, place patient with a suspected or confirmed HTP in a single room with a private bathroom and sink for handwashing. The door must be kept closed when not being used to enter or exit. Consider whether transfer to a facility with a higher tier level, with appropriate environmental controls is warranted.
  - If a dedicated bathroom is not available, provide a bedside commode or urinal. Ensure personal hygiene supplies are available for the patient.
- Post appropriate signage outside the patient room indicating required additional precautions.
- Only essential personnel wearing appropriate PPE are to enter the patient room. The number of HCWs entering the room must be kept to the minimum necessary to provide medical care.
- Always monitor patient care area and maintain a log of all persons (name, position) entering and exiting the patient room, including time and date. Refer to [Appendix A](#) for a sample Sign In/Sign out Tracking Log.
- Ensure there is a separate and clearly demarcated area or room for donning PPE (i.e., cold zone, such as an anteroom) and for doffing and disposal of used PPE (i.e., warm zone or quarantine room/area) near the patient's room.
  - Clearly demarcate clean areas and potentially contaminated areas so it is evident to

all HCWs working in the area, and traffic flow should minimize the risk of contamination.

- Contain potentially contaminated items/equipment that must pass through the clean area.
- Refer to the [BCCDC High Threat Pathogens](#) webpage for more information on patient room set up and waste management.
- Restrict patient to the room unless it is medically necessary for them to leave.
- Advise and support patients to perform hand hygiene frequently, particularly after toileting and vomiting, and adhere to respiratory hygiene.

### Patient Transfer

- Prior to any transfer (within the facility and/or between facilities), the most direct route to exit the facility should be chosen and closed off to avoid exposure of other individuals (e.g., HCWs, patients, visitors).
- Transportation within facilities should be avoided unless it is medically necessary.
  - If transportation is required, request the patient wear a medical mask (if tolerated)
    - Provide the patient with clean gown, clean bed linen and ensure drainage is contained.
  - Support the patient to perform hand hygiene before leaving the room.
  - Notify the receiving department of additional precautions required and for the patient to be seen immediately to avoid time spent outside the patient room.
  - Staff involved in transport should don appropriate PPE when entering the patient's room.
    - Soiled PPE should be removed prior to exiting the patient room or designated soiled area.
    - Clean PPE should be put on after leaving the patient room to transport the patient, in case there is a need to handle the patient during transport and at transport destination.
- If the MHO advises to transfer the patient to another facility, see the [BCCDC High Threat Pathogens](#) webpage for more information about BC HTP transportation policy.
  - Contact the Patient Transfer Network to inform receiving site and organize transfer.
  - Notify the receiving facility (i.e., receiving most responsible physician, clinical operations team) and the ambulance dispatch service that a “person under investigation or with a confirmed HTP” is being transferred, so they can take appropriate measures.
  - Request the patient wear a medical mask (if tolerated), clean gown and ensure any drainage is contained, before leaving the room.
  - The patient should also perform hand hygiene with assistance as necessary, before leaving the room.
- Engage with clinical/operations team and the local IPC at the facility where patient is located or

being transferred to, to ensure appropriate IPC measures are in place and to agree upon logistics (e.g., route of travel through hospital).

- Transfers to another facility should only be to a higher tier-level facility and, where possible, only to a Type Three facility. For more information, refer to the [BCCDC High Threat Pathogens](#) webpage.
- For HA facilities outside the Lower Mainland, transport may not be immediate and may have to wait for an extended period until arrangements can be made.

### Patient Psychological Health and Wellbeing

- The mental and emotional impacts because of the IPC measures implemented for patient(s) with HTP can be significant. Ensure psychological supports are available to patients and their support persons.
- Ensure regular communication with patient(s) and support persons on IPC and patient care requirements or procedures being implemented (e.g., need for admission or transfer, PPE requirements) to minimize additional stress and anxiety, as much as possible.
- Establish a process for patient communication with family members/support persons if the patient is well enough to do so.

### Management of Visitors or Support Persons

- Where possible, avoid entry of visitors/support persons into the patient room. Exceptions may need to be considered for those who are essential for the patient's wellbeing or are part of the care team (e.g., parent/guardian of small children).
- If essential, establish procedures for monitoring and managing visitors/support persons including screening visitors/support persons for symptoms upon arrival to the facility and their ability to comply with additional precautions.
  - Liaise with IPC and/or MHO as needed for visitors/support persons who are under self-isolation related to close contact exposure with the patient.
  - Refer to [B.C.'s HTP Ethical Decision Making Framework found at the BCCDC High Threat Pathogens webpage](#) to assist with decision making around essential visitors/support persons.
- Provide education for accompanying visitors/support persons on IPC precautions in place, as well as the prevention of transmission of disease to others (e.g., limiting surfaces touched), with a particular focus on hand hygiene, respiratory hygiene, and use of PPE while in the patient's room. Ensure they are aware of the risk of self-contamination when using their PPE.
- Movement of visitors or support persons within the facility should be restricted to the patient room and an immediately adjacent vacant waiting area.
- Access to the facility should be direct and by the shortest route possible. Visitors should be restricted from public areas within the facility, such as coffee shops or cafeterias. Food and beverages should be supplied to them

## Discontinuation of Precautions

- Precautions will remain in place until direction is given by IPC, MM, and the MHO to discontinue. See the [Provincial Recommendations for Discontinuation of High Threat Pathogen Precautions and Patient Discharge](#).
- Discharge planning (including but not limited to continuation of infection control precautions in the home setting) should be managed on a case-by-case basis in consultation with the IPC program, infectious disease specialists, and public health officials.

## Equipment Cleaning and Disinfection

- For information on cleaning and disinfection of medical equipment used in the care of patients with a suspected or confirmed HTP, see [Recommendations for Cleaning and Disinfection of Medical Equipment for High Threat Pathogens](#).

## Room Cleaning and Disinfection

- Ensure personnel responsible for environmental cleaning have received adequate training on processes and procedures required for rooms with patients with a suspected or confirmed HTP.
- Public areas where the patient has passed through or spent minimal time in (such as corridors) and which are not visibly contaminated with blood or bodily fluids do not need to be specially cleaned and disinfected.
- For more information and recommendations on environmental cleaning and disinfection and waste management, see the [BCCDC High Threat Pathogens](#) webpage.

## Staff Management

- All personnel involved in providing care to patient(s) with a suspected or confirmed HTP must:
  - Routinely self-monitor for symptoms and perform daily health checks for the duration they provide care and for 21 days following last contact with the patient, depending on the HTP of concern.
  - Be aware of signs and symptoms of the HTP of concern.
- Establish a process for recording daily health checks.
- Immediately report new onset symptoms (e.g., fever) to the manager/supervisor, MHO and WHS.
  - Staff should not report to work if experiencing any new symptoms during the period of self-monitoring.
  - If symptom onset occurs at work, staff should stop working immediately and report symptoms (see next section).
  - Staff should be prepared to isolate themselves if experiencing new symptoms during the self-monitoring period, and to follow any further instructions from the MHO/Public Health.
- Additional considerations:
  - The wearing of the PPE described in this guidance will result in increased heat stress and wearers can expect to perspire considerably after several minutes of working in this

equipment. HCWs caring for these patients and wearing this PPE may require more break time (both in terms of frequency and duration) to allow for adequate rest and hydration. This needs to be balanced with the risk of multiple HCWs providing care and the increased risk of doffing PPE each time.

- Caring for patients with suspected or confirmed HTP while wearing the necessary PPE, and diligently adhering to the PPE doffing procedures, requires consistent concentration and careful attention to detail. Excessive fatigue can impair concentration, which can increase the risk of contamination. Fatigue should be taken into consideration when determining appropriate staffing levels for HTP patient care teams.
- HCWs should identify when they are becoming fatigued or overheated while wearing the PPE and indicate to the buddy that they will be exiting the room.
- Refer to the [Provincial High Threat Pathogen Exposure Control Plan](#) for information on staff management.

### Exposures or Breaches (Potential or Known) and Reporting

- Report exposures to HTP (e.g., direct exposure without appropriate PPE or through percutaneous injury) immediately to the manager/supervisor, MHO, and to the BC [Provincial Workplace Health Contact Centre \(PWHCC\)](#).
- Following an exposure, immediately stop work, leave the area, and safely doff PPE.
- Perform first aid immediately if there has been exposure to blood or other body fluids, as per routine practice for blood or body fluid exposure. Refer to [BCCDC Blood and Body Fluid Exposure Management](#) guidance for more information.
- Staff who have had direct contact with a patient with HTP **AND** a breach in PPE or infection control practices should:
  - Contact Department manager.
  - **Report exposures to BC PWHCC: 1-866-922-9464**
  - Self-isolate (duration will be based on pathogen incubation period and on communicable period if symptoms develop).
  - Self-monitor twice daily for symptoms (record temperature and health check daily).
  - Report daily to Public Health and the PWHCC.
- Decision for HCW to return to work will be made in consultation with the MHO and WHS.
- Document staff breach events in the health authority documentation system.
- Refer to the [Provincial High Threat Pathogen Exposure Control Plan](#) for information on management of exposures or breaches.

### Staff Psychological Health and Resilience

The mental and emotional impacts of caring for patient(s) with HTP can be significant. Support the psychological well-being and resilience of HCWs and staff involved caring for patients with HTP through the following:

- Include psychosocial considerations in planning and decision-making to ensure timely and effective support is communicated and provided to staff.

- Promote awareness of and access to available program and services.
- Debrief after the event is over/once patient(s) has been discharged, focusing on things that went well, areas of opportunity and recommendations for improvement.

See [Key Resources](#) section for more information.

## Management of Deceased Persons

For information on the management of deceased persons with a suspected or confirmed HTP, please see the provincial guidelines at the [BCCDC High Threat Pathogens](#) webpage.

## Management of Close Contacts

- Report any potential or known exposures among visitors and/or patients to a person with suspected or confirmed HTP to local IPC and Public Health for follow up.
- For more information on management of asymptomatic contacts of Ebola virus disease (EVD), see BCCDC's [British Columbia EVD Case and Contact Investigation and Management Guidelines](#).

## Laboratory Guidance

For information on laboratory processes required for EVD, see [Recommendations for Ebola Virus Disease \(EVD\) Laboratory Processes](#).

## Calling the Medical Health Officer

When you call, be explicit that you are calling about an **urgent** matter related to a HTP. The MHO for your region can be reached at the following numbers:

Fraser Health:	Business hours: 1-866-990-9941 After business hours: 604-527-4806
Interior Health:	1-866-457-5648 (24/7 support)
Island Health:	Business hours: see Medical Health Officers - <a href="http://www.islandhealth.ca/about-us/medical-health-officers">www.islandhealth.ca/about-us/medical-health-officers</a> After business hours: 1-800-204-6166
Northern Health:	1-833-214-3274 (24/7 support)
Vancouver Coastal Health:	604 675-3900 (M-F, 8:30-5:00) <b>OR</b> 604-527-4893 (after hours)

Note: For Providence Health Care, call MHO for Vancouver Coastal Health. For Provincial Health Services Authority and First Nations Health Authority, call the appropriate regional MHO depending on the location of your facility.

### Reportable Disease Requirements:

By consulting the local MHO, you have met your responsibility for reporting.

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## Key Resources

### Disease-specific information:

- BC Centre for Disease Control (BCCDC):
  - [High Threat Pathogens](#)
  - [EVD Case and Contact Investigation and Management Guidelines](#)
- US Centre for Disease Control [Viral Hemorrhagic Fevers](#):
  - [Crimean-Congo hemorrhagic fever](#)
  - [Ebola \(Ebola Virus Disease\)](#)
  - [Lassa Fever](#)
  - [Marburg hemorrhagic fever](#)
- For up-to-date information on disease outbreaks globally, see [World Health Organization \(WHO\) Disease Outbreak News \(DONs\)](#)
- Public Health Agency of Canada (PHAC):
  - [Infection prevention and control measures for Ebola disease in acute care settings](#)
  - [Biosafety guidelines for laboratories handling specimens from patients under investigation for Ebola disease](#)

### Other HTP resources:

- **Clinical management**
  - [High Risk Communicable Disease Protocol for Interpreter Usage](#)
  - [B.C.'s HTP Ethical Decision-Making Framework](#)
- **Occupational Health and Safety resources (for BC Health Authorities):**  
[Provincial High Threat Pathogen Exposure Control Plan \(ECP\)](#)

### Psychological health and wellness resources:

- [Occupational Exposure to Ebola Virus Disease \(PDF, 316KB\)](#)
- [Psychosocial Considerations for Responding Health Care Providers \(PDF, 102KB\)](#)
- BCCDC [Health Care Provider Support](#) page

### Appendix A: Example Sign In/Sign out Tracking Log

Date yy/mm/dd		PCN		Mgr		Site	
Patient PHN		Owner cell/home#		Mgr's cell		Dept	

- One person responsible for log – please provide name and personal contact information in case the Provincial Workplace Health Call Centre requires clarification urgently.
- All staff who sign in have completed a symptom check before beginning their shift. They will also continue to self-monitor for symptoms and will notify their manager immediately of symptoms.
- Keep record until status of patient is verified.

First Name	Last Name	Resource Type	Primary Contact#	Dept	Mgr	Mgr Contact #	Room Type	Room	Time In	Time out	Breach Y/N
1.											
2.											
3.											
4.											
5.											
6.											
7.											
8.											
9.											

<b>10.</b>											
<b>11.</b>											
<b>12.</b>											