

Management of Cases of Ebola and their Contacts in Ontario

Guidance for public health units

August 27, 2015

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Nothing in this document is intended to restrict or affect the discretion of local medical officers of health in exercising their professional judgement or statutory powers under the [Health Protection and Promotion Act](#). This document is intended for information and guidance purposes only.

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Introduction

The Ministry of Health and Long-Term Care (ministry) developed this document to support public health units to conduct case and contact management activities in the event that a case of Ebola virus disease (EVD) is diagnosed in Ontario. This document details the following activities:

- identifying contacts of a confirmed case
- assessing contacts and assigning exposure risk level
- managing contacts according to exposure risk level
- managing a contact who develops symptoms compatible with EVD
- managing a confirmed case, convalescent case or deceased case.

The ministry has also released a document entitled [Public Health Management of Travellers from Countries Affected by Ebola Virus Disease](#) to assist public health units manage travellers from countries affected by EVD.

The identification of a confirmed case of EVD in Ontario triggers a number of response actions, including activation of the Ministry's Emergency Operations Centre (MEOC), at which Public Health Ontario and relevant ministry divisions are represented. Once the MEOC is activated, it will be the primary source of information, support and provincial coordination of health system response activities. The MEOC can be accessed through the Health Care Provider Hotline at 1-866-212-2272 on a 24/7 basis. A MEOC Health Coordination Teleconference with all relevant stakeholders will be held shortly after MEOC activation to discuss next steps, including implementation of the activities in this document.

Although the document provides guidance to assist public health units, it also allows public health units to apply discretion in the management of contacts. This document anticipates that the advice given by public health units to contacts will be implemented voluntarily as most individuals want to ensure that they take reasonable measure to protect others. The use of orders under the [Health Protection and Promotion Act](#), particularly for asymptomatic individuals, requires careful consideration by medical officers of health on a case-by-case basis.

The ministry is not recommending that asymptomatic contacts be quarantined as people with EVD 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 of exposure to the confirmed case. This includes balancing the objectives of minimizing the number of contacts who would require public health follow-up should an individual develop EVD while respecting the rights and freedoms of an asymptomatic individual. The recommendations in this document take into account that the early symptoms of EVD may be overlooked by a patient, 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.

This document is based on the assumption that public health unit staff will not have direct contact with suspect patients, persons under investigation (PUIs), confirmed cases or deceased cases – and therefore, public health unit staff should not be at risk of exposure to EVD.

Although the risk of acquiring EVD in Canada is very low, public health units must be prepared to implement case and contact management in the event that a confirmed case connected to the outbreak in an [EVD-affected country](#) is identified in Ontario. The purpose of a timely public health response to EVD is to minimize the amount of time between the onset of illness and isolation in order to reduce the risk of transmission to others. Early response is critical to controlling the spread of EVD.

Case Management

Public health unit actions regarding case management are summarized for suspect patients ([Table 1](#)) PUIs ([Table 2](#)), confirmed cases ([Table 3](#)), convalescent cases ([Table 4](#)) and deceased cases ([Table 5](#)). Additional information is contained in the notes that follow each table.

Table 1: Management of a suspect patient

Criteria	Public Health Actions
<p>A person with an exposure to a confirmed case (see Contact Identification) who develops any of the following symptoms:</p> <ul style="list-style-type: none"> • fever of 38°C or greater • malaise • myalgia • severe headache • conjunctival injection • pharyngitis • abdominal pain • vomiting • diarrhea that can be bloody • unexplained hemorrhage • rash 	<ul style="list-style-type: none"> • Recommend that the patient receives an assessment at a designated EVD testing or treatment hospital (1) to confirm or rule out EVD. Do not refer to any other type of hospital or primary care provider. • Notify the emergency department of the patient's symptoms and contact history so that appropriate control measures can be taken prior to the patient's arrival. • Call local paramedic services if the patient is very ill or has no other means of transport. Advise paramedic services of the patient's symptoms and contact history so appropriate precautions can be taken. • If the patient is not sent by paramedic services, advise the patient not to use public transportation. The patient should use a private vehicle and avoid physical contact with others. • Advise the patient to: <ul style="list-style-type: none"> – ensure that others do not come into contact with him/her, his/her blood or other body fluids (including urine, feces, emesis, saliva, sweat and semen), or anything that may have come in contact with his/her blood or other body fluids (e.g. linens, clothing, toilet, toiletries) (2) – cease all contact with livestock and pets/companion animals (3).

(1) The ministry has developed a three-tier hospital framework to ensure that the health system is prepared to manage patients with EVD in Ontario. This framework has classified hospitals as screening hospitals, testing hospitals or treatment hospitals. The ministry's document entitled [A three-tier approach to Ebola virus disease management in Ontario](#) outlines the designated testing and treatment hospitals. The hospitals designated under the ministry's three-tier hospital framework are subject to change.

(2) Suspect patients may dispose of urine, stool and emesis through the regular sanitary sewer system.

(3) If the suspect patient had exposure to any animals during his/her monitoring period:

- He/she should immediately cease all contact with animals (e.g. the animal should ideally be placed in a crate or shut in a room with no further direct contact with the symptomatic individual).
- The public health unit should report a potential animal health incident to the Ministry of Agriculture, Food and Rural Affairs (OMAFRA) by calling the Agricultural Information Contact Centre at 1-877-424-1300 and to the ministry by calling the ministry's Public Health Veterinarian via the MEOC.
- If a delay until the time that the animal will be assessed and/or removed by OMAFRA is anticipated, the suspect patient or public health unit should provide the animal with sufficient food and water. If food and water for the animal are placed in the crate/room by the suspect patient, he/she should avoid direct contact with the animal as much as possible. If contact with the pet or its food, toys or any item with which the pet will have contact is unavoidable, the suspect patient should wash his/her hands thoroughly (or an alcohol-based hand sanitizer applied) before contact.

Table 2: Management of a person under investigation

Criteria	Public Health Actions
A suspect patient for whom EVD-laboratory testing is recommended (based on a clinical assessment by an infectious disease physician in consultation with the public health unit and Public Health Ontario Laboratories) or laboratory results are pending	<ul style="list-style-type: none">• Consult with the MEOC regarding the application of the public health actions detailed in Table 3 (1).• Start to complete the Ebola Case Report Form and enter the individual into the integrated Public Health Information System (iPHIS) as a PUI.

(1) Public health units may apply some of the public health actions for the management of a confirmed case ([Table 3](#)) to a PUI – especially when there is a high index of clinical suspicion.

Table 3: Management of a confirmed case

Criteria	Public Health Actions
A person with laboratory confirmation of Ebola virus infection	<ul style="list-style-type: none">• Complete the Ebola Case Report Form and enter the data into iPHIS within 24 hours of notification of the confirmed case.• Identify contacts (see Contact Identification).• If the case had contact with a pet/companion animal or livestock in the 21 days before he/she was sick, contact OMAFRA and the ministry's Public Health Veterinarian.• Facilitate cleaning and disinfection of the case's home (1).• Monitor the case until he/she is discharged from the hospital (see Appendix A for the Confirmed Case Daily Clinical Update Worksheet).• Conduct discharge planning in collaboration with the hospital's infectious disease specialist(s) and infection prevention & control team (2).

(1) Public health units may contact the MEOC for support in identifying a company that is able to clean and disinfect environments contaminated with infectious materials, such as the Ebola virus, safely and effectively.

(2) The hospital may consider discharging the confirmed case when he/she is no longer symptomatic and two blood tests (done 48 hours apart) are both negative for Ebola virus.

Table 4: Management of a convalescent case

Criteria	Public Health Actions
A confirmed case who is discharged from a treatment hospital	<ul style="list-style-type: none">• Ensure that the hospital has referred the confirmed case to an infectious disease specialist for ongoing monitoring for the potential sequelae of EVD.• Recommend that the patient abstain from sexual activity (including oral sex) (1). If this is not possible, the patient should be counselled on disclosing the risk of transmission to sexual partners and the need for consistent use of condoms.

(1) The MEOC will provide further information regarding the recommended timeframe for abstaining from sexual activity at the time there is a confirmed case based on the current evidence.

Table 5: Management of a deceased case (1)

Criteria	Public Health Actions
A confirmed case who dies	<ul style="list-style-type: none">• Support the funeral home to make arrangements for a safe burial or cremation (2).

(1) Public health units located in jurisdictions with a treatment hospital should collaborate with these hospitals to develop a step-by-step process to guide the management of human remains. This process needs to include the preparation of the body in the patient's airborne infection isolation room, controlled transport of the body to the hospital's morgue or loading area, and handover of the body to a transfer service. Hospitals must enable the transfer service to transfer the body into a casket or cremation container in the morgue or loading area prior to offsite shipment to the burial or cremation site. Hospitals are required to incorporate the control measures outlined in the [Chief Medical Officer of Health Directive #1 for Hospitals](#) in the step-by-step process.

(2) Under [Regulation 557 of the Health Protection and Promotion Act](#), the medical officer of health has the ability to direct the prompt burial or cremation of a deceased case, as well as to restrict the attendance of persons at the funeral of a deceased case. Public health units should work with the funeral home to support the planning for the burial or cremation of the decedent. The medical officer of health can contact the MEOC for support in conducting a risk assessment related to the burial or cremation arrangements.

Contact Identification

Public health units should commence contact identification activities as soon as a confirmed case is identified.

Public health units may use the worksheets in [Appendix B](#) and [Appendix C](#) to assist with contact identification.

Contacts include all individuals who had contact with the case since the onset of the case's symptoms including:

- household contacts
- sexual contacts
- health care workers who provided direct care, handled laboratory specimens, cleaned the case's environment or touched materials contaminated with the case's blood or other body fluids
- individuals who touched the case

- individuals who touched materials contaminated with the case's blood or other body fluids
- individuals who came within one metre of the case (this does not include individuals who just walked by the confirmed case).

When identifying potential contacts, the public health unit should consider the case's:

- living environment
- workplace, school or child care centre
- travel history
- recreational and other social activities
- health care visits
- methods of transportation

The public health unit should obtain multiple methods of reaching each contact at the time of the case's initial interview if possible (e.g., home, work and cell phone numbers, email address, and work and home address). Public health units should use usual practices to locate contacts who cannot initially be reached including calling or texting at numerous times in the day and evening, and using email, home visits, and registered letters. For contacts who are particularly difficult to reach, public health units can consider other methods such as involving police and process servers. The public health unit should consult with the MEOC when contacts cannot be reached.

Contact Management

The public health unit should assess contacts for their risk of exposure to the confirmed case and manage each contact based on his/her risk level. As per usual practice, contacts are assessed and managed by the public health unit in the jurisdiction in which they live.

It is important to manage each contact to ensure that he/she does not develop EVD and that there is no further transmission of the virus.

[Table 6](#), [Table 7](#) and [Table 8](#) summarize the criteria to identify the risk level of contacts, as well as the corresponding public health unit actions. Further details are found in the notes that follow each table.

Table 6: Low risk contact

Risk Level Criteria	Public Health Actions
<p>The contact shared common space with a symptomatic confirmed case (e.g., shared enclosed workspaces, rooms or washrooms) but does not meet criteria for intermediate or high risk levels.</p>	<ul style="list-style-type: none"> • Complete as much as possible of the Contact Follow-up Worksheet (see Appendix D) and enter data into iPHIS within one business day. • Counsel the contact regarding: <ul style="list-style-type: none"> – symptoms compatible with EVD – instructions to self-monitor for fever and other symptoms compatible with EVD for 21 days from his/her last exposure to the confirmed case(1) – appropriate actions should symptoms develop (2) including notifying the public health unit – notifying the public health unit of his/her intention to travel outside the health unit's jurisdiction (other than to a nearby jurisdiction for work). • Follow up with the contact on first day and intermittently/daily thereafter to receive updates on the results of his/her self-monitoring process during the 21 day monitoring period (see for the Contact Daily Monitoring Worksheet) (3). • Advise the contact to modify his/her behaviour during the 21-day monitoring period by: <ul style="list-style-type: none"> – practising safe sex (e.g., condoms) and safe injection drug use – not donating blood, other body fluids or tissues – postponing elective medical visits and other procedures (e.g., elective dental visits, elective blood tests) – notifying public health should they need to seek health care for any purposes, so public health can alert the health care worker of the person's EVD exposure prior to visit – not having contact with livestock or pets/companion animals (see Additional Considerations for more information). • Advise the contact that his/her movement does not need to be restricted during the 21-day monitoring period.

Table 7: Intermediate risk contact

Risk Level Criteria	Public Health Actions
<p>The contact had direct or close contact with a symptomatic confirmed case (e.g., touched the case or the case's body fluids, was within one metre of the case, entered the case's room or care area in the hospital) and used full, appropriate personal protective equipment at all times</p> <p>OR</p> <p>was a laboratory worker handling specimens of a confirmed case while using appropriate biosafety measures at all times and used full, appropriate personal protective equipment at all times</p> <p>OR</p> <p>had direct contact with a dead body of a person with EVD (does not include a body in a body</p>	<ul style="list-style-type: none"> • Complete as much as possible of the Contact Follow-up Worksheet (see Appendix D) and enter data into iPHIS within one business day. • Counsel the contact regarding: <ul style="list-style-type: none"> – symptoms compatible with EVD – instructions to self-monitor for fever and other symptoms compatible with EVD for 21 days from his/her last exposure to the confirmed case (1) – appropriate actions should symptoms develop (2) including notifying local public health – notifying the public health unit of his/her intention to travel outside the health unit's jurisdiction (other than to a nearby jurisdiction for work). • Follow-up with the contact on a daily basis to receive updates on the results of his/her self-monitoring process during the 21-day monitoring period (see Appendix E for the Daily Contact Monitoring Worksheet). • Advise the contact to modify his/her behaviour during the 21-day monitoring period by: <ul style="list-style-type: none"> – practising safe sex (e.g., condoms) and safe injection drug use – not donating blood or other body fluids or tissues – postponing elective medical visits and other procedures (e.g., elective dental visits, elective blood tests) – notifying public health should they need to seek health care for any purposes, so public health can alert the health care worker of the person's EVD exposure prior to visit – not having contact with livestock or pets/companion animals (see Additional Considerations for more information). • In collaboration with local paramedic services, develop a plan to transfer a contact that resides more than one hour's driving time to a designated testing or treatment hospital should he/she develop symptoms compatible with EVD (4).

Risk Level Criteria	Public Health Actions
bag or coffin) and used full, appropriate personal protective equipment at all times.	<ul style="list-style-type: none"> • Advise the contact that his/her movement does not need to be restricted during the 21-day monitoring period. • If the contact is a health care worker, facilitate workplace accommodation strategies with his/her employer (5).

Table 8: High risk contact

Risk Level Criteria	Public Health Actions
<p>The contact had percutaneous (e.g., needle stick) or mucous membrane exposure to blood or other body fluids of a confirmed case or had sexual contact with a confirmed case (regardless of condom use)</p> <p>OR</p> <p>had direct or close contact with a symptomatic confirmed case (e.g., touched the person or their body fluids or was within one metre of them, not including just walking by the person) without full, appropriate personal protective equipment at</p>	<ul style="list-style-type: none"> • Complete as much as possible of the Ebola Contact Follow-up Worksheet (see Appendix D) and enter data into iPHIS within one business day. • Counsel the contact regarding: <ul style="list-style-type: none"> – symptoms compatible with EVD – instructions to self-monitor for fever and other symptoms compatible with EVD for 21 days from his/her last exposure to the confirmed case (1) – appropriate actions should symptoms develop (2), including notifying public health. • Follow-up with the contact daily to receive updates on the results of his/her self-monitoring process during the 21 day monitoring period (see Appendix E for the Contact Daily Monitoring Worksheet). • Advise the contact to modify his/her behaviour during the 21-day monitoring period by: <ul style="list-style-type: none"> – practising safe sex (e.g., condoms) and safe injection drug use – not donating blood or other body fluids or tissues – postponing elective medical visits and other procedures (e.g., elective dental visits, elective blood tests) – notifying public health should they need to seek health care for any purposes, so public health can alert the health care worker of the person's EVD exposure prior to the visit – not travelling outside of his/her city/town/area of residence – not having contact with livestock or pets/companion animals (see Additional

Risk Level Criteria	Public Health Actions
<p>all times (6)</p> <p>OR</p> <p>provided health care to a confirmed case or, while in hospital, entered their room or care area without full, appropriate personal protective equipment at all times</p> <p>OR</p> <p>was a laboratory worker handling specimens of a confirmed case without appropriate biosafety measures at all times</p> <p>OR</p> <p>had direct contact with a dead body of a confirmed case (does not include a body in a body bag or coffin) without full, appropriate personal protective equipment at all times</p> <p>Note: The high risk category is the risk level for household contacts and those seated next to</p>	<p><u>Considerations</u> for more information).</p> <ul style="list-style-type: none"> • Recommend that the contact restrict his/her activities to minimize exposure to others for the 21-day monitoring period by: <ul style="list-style-type: none"> – not attending school (primary or secondary school) or day care – not attending social or other gatherings – not travelling in any form of public transportation (plane, train, bus, subway, etc.). • In collaboration with local paramedic services, develop a plan to transfer a contact that resides more than one hour's driving time to a designated testing or treatment hospital should he/she develop symptoms compatible with EVD (4). • Advise on the contact's attendance at his/her workplace or post-secondary institution (5). • Facilitate workplace accommodation strategies with his/her employer (6). If the contact is a health care worker, direct patient contact should be avoided.

Risk Level Criteria	Public Health Actions
the case on an airplane.	

(1) Contacts should record their oral temperature readings twice daily for 21 days from their last exposure to the confirmed case. Contacts should refrain from taking antipyretics during the monitoring period (if possible) and they should avoid sharing oral thermometers.

If a contact receives a medical assessment for EVD-compatible symptoms within the 21-day timeframe and an alternate diagnosis is confirmed, he/she should continue to self-monitor for symptoms of EVD for the duration of the 21-day monitoring period.

Once the 21-day monitoring period has passed, the contact should continue to be watchful for symptoms. The public health unit should advise him/her how to manage any symptoms that develop.

(2) If a contact develops a fever of $\geq 38^{\circ}\text{C}$ or any other symptom compatible with EVD (see [Table 1](#)), he/she should immediately self-isolate, avoid physical contact with others (including maintaining a two metre distance from others), and contact the public health unit for further direction.

(3) In determining the frequency of public health follow-up (which can include daily follow-up) for individuals classified as low risk, public health units should consider the following factors:

- frequency and duration of time the contact spent with the confirmed case while the case was symptomatic
- the confirmed case's stage of illness at the time of exposure (early illness being less infectious than later illness)
- the confirmed case's symptoms at the time of exposure (diarrhea, vomiting or bleeding are more likely to contaminate the environment)
- whether the contact shared a washroom with the confirmed case, and if so, the likelihood of exposure in that space.

The public health unit should reclassify the contact to intermediate or high risk as needed based on additional information about his/her exposure to the confirmed case.

(4) When an intermediate or high risk contact is located more than one hour's driving time of a treatment or testing hospital, the public health unit should collaborate with local paramedic services to develop a plan to transfer the contact to the nearest designated testing or treatment hospital in the event that he/she becomes symptomatic and requires transportation by paramedic services.

Although a symptomatic contact may also take a private vehicle to travel to a designated hospital, public health units need to develop a plan for a paramedic transfer in the event that the contact is too sick to travel by private vehicle.

(5) Hospitals are assigning health care workers to care for PUIs and confirmed cases. The hospital (in partnership with the public health unit) should monitor these health care workers while they are providing care for the case, and for 21 days from their last exposure.

In determining the possible workplace restrictions for health care workers classified as intermediate risk (i.e., health care workers that wore recommended PPE at all times), public health units should consider their risk of exposure such as:

- the health care worker's role in providing care for the confirmed case
- the training and oversight provided with respect to the health care worker's use of personal protective equipment.

The public health unit should further discuss workplace accommodation strategies with the worker's employer, which may include restricting the worker's exposure to patients (i.e., no direct patient care) for the 21-day monitoring period.

(6) In determining the possible workplace restrictions for individuals classified as high risk, public health units should consider the contact's risk of exposure, such as:

- frequency and duration of time the contact spent with the confirmed case while the case was symptomatic
- the confirmed case's stage of illness (early illness being less infectious than later illness)
- the confirmed case's symptoms (diarrhea, vomiting or bleeding are more likely to contaminate the environment)
- if the contact is a health care worker, the contact's role in providing care for the confirmed case
- if the contact is a health care worker, the extent of his/her breach in personal protective equipment
- if the contact is a health care worker, the training and oversight provided with respect to the contact's use of personal protective equipment.

Public health units should also consider the contact's proposed activities, including applying the following questions:

- Can the contact attend/participate in the event/activity without touching or coming within one metre of others (other than just transiently coming within one metre)?
- Is there a way for the contact to leave the event/activity easily should he/she develop symptoms compatible with EVD?
- Is the contact's attendance/participate in the event/activity essential?
- Can the contact participate in the event/activity in a way that results in less exposure to others?

- What are the policies of the contact's employer or educational institution?

Additional Considerations

Contacts that Travel during the Monitoring Period

The public health unit where the contact resides and/or is initially located is responsible for maintaining contact with the individual during the entire 21-day monitoring period, even if the contact travels to another public health unit jurisdiction or province. However, on a case-by-case basis, the public health unit may transfer responsibility to another jurisdiction, depending on the contact's travel itinerary. The decision to transfer monitoring to another jurisdiction will be determined through consultation with the MEOC, the other jurisdiction and the Public Health Agency of Canada (PHAC) (if the contact is going to another province).

If the contact is leaving the country, the MEOC will notify PHAC, who in turn notifies the destination country of the contact's planned arrival through processes outlined in the [International Health Regulations](#). Given that it may take a few days to reach the public health authority in the country where the contact is going, public health units should notify the MEOC of the contact's intent to travel internationally as soon as possible.

Animal Contacts

Ideally, contacts should have no animal contact during the 21-day monitoring period. This is to prevent the need to quarantine animals should the contact become a confirmed case – and the ensuing cost, logistical challenges and animal welfare concerns.

The ministry recommends that contacts have no contact with livestock during the 21-day monitoring period, including entering barns or other livestock housing areas.

Ideally, contacts should also have no contact with pets/companion animals during the 21-day monitoring period. As this may be difficult in some situations, the public health unit and animal health officials (including OMAFRA and the ministry's Public Health Veterinarian) should consider the contact's risk level and the likelihood and potential implications of the animal's subsequent exposure to the person on a case-by-case basis.

If separation of the pet/companion animal and contact is not possible, the public health unit should recommend that the contact limits their contact with the animal during the 21-day monitoring period as much as possible.

Pets/companion animals of asymptomatic contacts pose no threat to other caretakers. Since EVD is only 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 rehomed pets/companion animals of asymptomatic contacts.

Coordination with Hospitals and Paramedic Services

Management of Exposed Health Care Workers

Hospitals and paramedic services are responsible for identifying and managing health care workers who were exposed to a patient with EVD while at work. This includes

workers who had exposure to confirmed case or deceased case, as well as workers who had exposure to a suspect patient or PUI who is subsequently identified as a confirmed case. Worker exposures may include unprotected exposure (i.e., did not wear full, appropriate PPE at all times) or protected exposure (i.e., wore full, appropriate PPE at all times).

Public health units should collaborate with hospitals and paramedic services to support them to manage these workers, including providing guidance on any workplace accommodation strategies. Health care workers classified as intermediate and high risk contacts should avoid direct patient contact for the 21-day monitoring period.

Management of Exposed Patients

Hospitals are responsible for identifying and managing inpatients who were exposed to a symptomatic patient with EVD at the hospital (in the unlikely event that this should occur). Public health units should collaborate with hospitals to support them to manage these inpatients.

Hospitals are also responsible for identifying any outpatients who were exposed to a symptomatic patient with EVD at the hospital, while the public health unit is responsible for managing these patients in the community.

Public Health Unit Reporting requirements

[Table 9](#) outlines public health unit reporting requirements with respect to cases and contacts of EVD, including the reporting method and timeframe for different issues.

Table 9: Public health unit reporting requirements

Issue	Reporting method and Timeframe
A contact develops symptoms compatible with EVD and requires an assessment at a testing or treatment hospital (e.g., assessment by an infectious disease physician to determine if EVD laboratory testing is required).	<ul style="list-style-type: none"> • Phone the MEOC immediately
An individual becomes a PUI (e.g., individual was assessed by an infectious disease physician and an EVD test is indicated).	<ul style="list-style-type: none"> • Phone Public Health Ontario Laboratories (PHOL) immediately • Phone the MEOC immediately • iPHIS data entry within 24 hours of notification
A case is laboratory-confirmed by PHOL as having EVD.	<ul style="list-style-type: none"> • Phone the MEOC immediately • iPHIS data entry within 24 hours of notification
A contact is identified.	<ul style="list-style-type: none"> • iPHIS data entry within 1 business day

<i>Issue</i>	<i>Reporting method and Timeframe</i>
A contact is identified that resides in another jurisdiction.	<ul style="list-style-type: none"> • Phone the MEOC immediately • iPHIS referral within 1 business day
A contact cannot be reached after reasonable effort.	<ul style="list-style-type: none"> • Phone the MEOC immediately
A contact resides more than one hour's driving time from a designated testing or treatment hospital and the public health unit is having difficulty in developing a transport plan with local paramedic services.	<ul style="list-style-type: none"> • Phone the MEOC as needed
A contact has or will have exposure to livestock or pets/companion animals during the 21-day monitoring period.	<ul style="list-style-type: none"> • Phone OMAFRA and the MEOC within 1 business day
A confirmed case had exposure to livestock or pets/companion animals in the 21 days prior to illness onset.	<ul style="list-style-type: none"> • Phone OMAFRA and the MEOC immediately
The public health unit identifies issues/challenges during the 21-day monitoring period.	<ul style="list-style-type: none"> • Phone the MEOC immediately
A contact has an intent to travel (i.e., to another health unit, province or country).	<ul style="list-style-type: none"> • Phone the MEOC immediately
The contact's 21-day monitoring period is over.	<ul style="list-style-type: none"> • Phone the MEOC within 1 business day • iPHIS data entry within 1 business day
A convalescent case is discharged from the hospital into the community.	<ul style="list-style-type: none"> • Phone the MEOC immediately • iPHIS data entry within 1 business day

Appendix A. Confirmed Case Daily Clinical Update Worksheet

Public health units can use this form to capture information on the confirmed case's clinical progress; both while she/he is in the hospital and after she/he has been discharged back to the community. Public health units can provide the MEOC with daily updates over the phone on the case's clinical course and any subsequent action items.

Once monitoring of a case is finished, public health units 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) _____

Daily Progress	Follow-up Date/Time (yyyy/mm/dd)	Name of person contacted (e.g., 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

Daily Progress	Follow-up Date/Time (yyyy/mm/dd)	Name of person contacted (e.g., 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 B. Contact Identification Worksheet – Contacts by Name

Public health units can use this worksheet to identify contacts of confirmed cases while she/he was symptomatic. Public health units may also use this worksheet to identify contacts of persons under investigation (PUIs) when there is a high degree of clinical suspicion – public health units should consult with the Ministry Emergency Operations Centre on the need to start contact identification for PUIs on a case-by-case basis.

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

Date of Case's Symptom Onset: (yyyy/mm/dd) _____

Contact name	Phone number or other contact information	Type of contact (e.g., how close, for how long, how often, in which setting)	Date of first contact since the case has been symptomatic (yyyy/mm/dd)	Date of last contact since the case has been symptomatic (yyyy/mm/dd)	Comments / risk level category

Appendix C. Contact Identification Worksheet – Contacts by Activity

Public health units can use this worksheet to identify contacts of confirmed cases by considering each activity undertaken by the confirmed case while she/he was symptomatic. Public health units may also use this worksheet to identify contacts of persons under investigation (PUIs) when there is a high degree of clinical suspicion – public health units should consult with the Ministry Emergency Operations Centre on the need to start contact identification for PUIs on a case-by-case basis.

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

Date of Case's Symptom Onset: (yyyy/mm/dd) _____

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

Public health units can use this worksheet to gather information on a contact, including assessing his/her exposure risk level.

(1) Client Information	
Last name: _____	First name: _____ Date of birth: (yyyy/mm/dd) _____
Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Unknown <input type="checkbox"/> Other	
Usual residential address: _____ _____	
City: _____	Province/Territory/Country : _____ Postal code: _____
Address in Ontario if different than above: _____ _____	
City: _____	Postal code: _____
Phone number(s): (____) ____ - ____ home (____) ____ - ____ cellular (____) ____ - ____ work	
(2) Administrative Information (applicable only for contacts of individuals known or highly likely to have Ebola virus disease and not required for travellers)	
Report date: (yyyy/mm/dd) _____	
iPHIS ID #: _____	
Diagnosing health Unit: _____ Responsible health unit: _____	
Branch office: _____	
Name of public health unit person reporting: _____	
Telephone #: (____) ____ - ____ Email: _____	
(3) Exposure risk levels – Complete the following section for all contacts of confirmed cases of EVD. Check as many as apply within the previous 21 days	
<input type="checkbox"/> Had percutaneous or mucous membrane exposure to body fluids of a person known or highly likely to have EVD (<i>High Risk Exposure</i>)	
<input type="checkbox"/> Provided health care for a person known or highly likely to have EVD	
<input type="checkbox"/> With full appropriate personal protective equipment at all times (PPE) (<i>Intermediate Risk Exposure</i>)	
<input type="checkbox"/> Without full, appropriate PPE at all times (<i>High Risk Exposure</i>)	
<input type="checkbox"/> Had sexual contact with a person known or highly likely to have EVD (regardless of condom	

use) (*High Risk Exposure*)

- ☐ Had direct or close contact of a person known or highly likely to have EVD **without** full, appropriate PPE at all times (i.e., touched the person or any of their bodily fluids or was within one metre of them, not including just walking by the person); this includes household contacts or those seated next to the person on an airplane. (*High Risk Exposure*)
- ☐ Had direct or close contact with a person known or highly likely to have EVD **with** full, appropriate personal protective equipment at all times (i.e., touched the person or any of their bodily fluids or was within one metre of them, not including just walking by the person) (*Intermediate Risk Exposure*)
- ☐ Laboratory processing of specimens/body fluids of a person known or likely to have EVD:
 - ☐ **With** full, appropriate PPE at all times (*Intermediate Risk Exposure*)
 - ☐ **With** appropriate biosafety precautions at all times (*Intermediate Risk Exposure*)
 - ☐ **Without** full appropriate PPE at all times (*High Risk Exposure*)
 - ☐ **Without** appropriate biosafety precautions at all times (*High Risk Exposure*)
- ☐ Contact with a dead body in a country affected by EVD or who had or may have had EVD
 - ☐ **With** full, appropriate PPE at all times (*Intermediate Risk Exposure*)
 - ☐ **Without** full, appropriate PPE at all times (*High Risk Exposure*)
- ☐ Was in an affected country/area AND had no known potential human exposures (e.g., no contact with an ill or dead person or that ill/dead person's bodily fluids) (*Low Risk Exposure*)
- ☐ More than transient shared common space with an EVD case not in an affected country, that could result in risk through the shared environment (i.e., shared enclosed workspaces, rooms or washrooms) but no direct contact (*Low Risk Exposure*)

Date of earliest exposure: (yyyy/mm/dd) _____

Date of latest exposure: (yyyy/mm/dd) _____

Date of most likely exposure: (yyyy/mm/dd) _____

Please provide details of exposure(s)/potential exposure(s):

Appendix E. Contact Daily Monitoring Worksheet

Public health units can use this worksheet to monitor contacts of a confirmed case of EVD during the 21-day monitoring period.

Last Name: _____ First Name: _____ Date of Birth: (yyyy/mm/dd) _____

Date of Last Exposure: (yyyy/mm/dd) _____ Date that is 21 Days from Last Exposure: (yyyy/mm/dd) _____

Follow-up Date (yyyy/mm/dd) Number of Days Since Last Exposure	Temperature Recording A.M.	Temperature Recording A.M.	Symptoms	Comments/Action Items	Person in Health Unit Completing Form
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		

Follow-up Date (yyyy/mm/dd) Number of Days Since Last Exposure	Temperature Recording A.M.	Temperature Recording A.M.	Symptoms	Comments/Action Items	Person in Health Unit Completing Form
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		

Follow-up Date (yyyy/mm/dd) Number of Days Since Last Exposure	Temperature Recording A.M.	Temperature Recording A.M.	Symptoms	Comments/Action Items	Person in Health Unit Completing Form
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		

Follow-up Date (yyyy/mm/dd) Number of Days Since Last Exposure	Temperature Recording A.M.	Temperature Recording A.M.	Symptoms	Comments/Action Items	Person in Health Unit Completing Form
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		

Follow-up Date (yyyy/mm/dd) Number of Days Since Last Exposure	Temperature Recording A.M.	Temperature Recording A.M.	Symptoms	Comments/Action Items	Person in Health Unit Completing Form
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		

Follow-up Date (yyyy/mm/dd) Number of Days Since Last Exposure	Temperature Recording A.M.	Temperature Recording A.M.	Symptoms	Comments/Action Items	Person in Health Unit Completing Form
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		
			<input type="checkbox"/> Headache <input type="checkbox"/> Diarrhea <input type="checkbox"/> Muscle pain <input type="checkbox"/> Vomiting <input type="checkbox"/> Sore throat <input type="checkbox"/> Stomach pain <input type="checkbox"/> Other, specify		

