Ebola Virus Disease

Directive # 1
Issued under Section 77.7 of the *Health Protection and Promotion Act,* R.S.O. 1990, c. H.7 ("HPPA")

WHEREAS under section 77.7(1) of the HPPA, if the Chief Medical Officer of Health ("CMOH") is of the opinion that there exists or there may exist an immediate risk to the health of persons anywhere in Ontario, he or she may issue a directive to any health care provider or health care entity respecting precautions and procedures to be followed to protect the health of persons anywhere in Ontario;

AND WHEREAS, under section 77.7(2) of the HPPA, for the purposes of section 77.7(1), the CMOH must consider the precautionary principle where in the opinion of the CMOH there exists or there may exist an outbreak of an infectious or communicable disease and the proposed directive relates to worker health and safety in the use of any protective clothing, equipment or device.

AND HAVING REGARD TO Ebola Virus Disease (EVD), associated with a high fatality rate, and is currently spreading in three countries in West Africa and is at risk of spreading to Canada and to Ontario - health care workers in acute care institutions being particularly at risk.

I AM THEREFORE OF THE OPINION that there exists or may exist an immediate risk to the health of persons anywhere in Ontario from EVD;

AND DIRECT pursuant to the provisions of section 77.7 of the HPPA that:

Procedures and Personal Protective Equipment

Date of Issuance: October 17, 2014

Effective Date of Implementation: October, 17, 2014

Issued To*: ('X' as appropriate)

- ❑ Public Health Units
- ❑ Emergency Medical Services (pre-hospital care), CritiCall
- ❑ Laboratories

All facilities/personnel providing care in:

- X Acute Care Institutions
- ❑ Long-Term Care and Complex Continuing Care Settings
- ❑ Mental Health Institutions
- ❑ Community Settings (offices, clinics, pharmacies, home settings, community-based mental health and addiction programs, Community Health Centres, Community Care Access Centres)

❑ Specific sector(s): _____

* Please ensure that a copy of this directive is provided to the Co-chairs of the Joint Health and Safety Committee within your organization

Affected LHINs: ('X' as appropriate)

X All

- ❑ Erie St. Clair
- ❑ South West
- ❑ Waterloo Wellington
- ❑ Hamilton Niagara Haldimand Brant
- ❑ Central West
- ❑ Mississauga Halton
- ❑ Toronto Central
- ❑ Central
- ❑ Central East
- ❑ South East
- ❑ Champlain
- ❑ North Simcoe Muskoka
- ❑ North East
- ❑ North West

Summary of Directive

Ebola Virus Disease (EVD) is associated with a high fatality rate, and is currently spreading in West Africa. Although the risk in this Country is low, we must be prepared for persons with the disease, or incubating the disease, entering Canada.

In Ontario, those most at risk are health care workers (HCW). Therefore, the purpose of this Directive is to provide instructions to all acute care settings, and their management and employees, concerning precautions and procedures necessary to protect the health of workers and significantly reduce the risk of spreading the disease.

This Directive covers personal protective equipment and procedures. Further Directives for other settings, including Emergency Medical Services (EMS), primary care and laboratories; and concerning training, testing, transportation of specimens, waste disposal and other matters will follow.

Point of care risk assessments

Transmission of EVD can occur:

- directly through contact with blood and/or body fluids or droplets,
- indirectly through contact with patient care equipment or surfaces contaminated with blood and/or body fluids, and
- possibly through generation of aerosols.

Employers must conduct facility risk assessments to identify potential hazards and workers who may be at risk of exposure to Ebola. Health care providers must conduct a point of care risk assessment before each interaction with a patient and/or the patient's environment to evaluate the likelihood of exposure to an infectious agent/infected source and to choose the appropriate safe work practices. Health sector employers should ensure that health workers are incorporating the latest in OHS/Infection Prevention and Control (IPAC) recommendations from the MOHLTC for EVD into their point of care risk assessments, including any enhancements or modifications to PPE controls.

Procedures

Restricting Access

Hospitals are encouraged to direct returning travellers or high-risk persons (i.e. those with a relevant travel history) directly towards the Emergency Department.

Patients Presenting at Out-Patient Clinics

Patients presenting at out-patient clinics should be screened by asking for a 30 day travel history and questioned about symptoms, particularly fever. If there is a concern, the patient should be transferred to the Emergency Department (ED).

Routine Practices

In some cases, patients with EVD may not be recognized immediately. The consistent and appropriate use of Routine Practices (RP) remains the best defense against the transmission of EVD and other infections. RP include the use of hand hygiene, cleaning and disinfection of all shared equipment, regular environmental cleaning using an approved hospital grade disinfectant, meticulous attention to safety around the use of needles and sharps, and a complete and careful risk assessment performed prior to any patient encounter.

In general, the precautionary principle should be followed.

Patient Placement

When a suspected case of EVD is identified, the patient should be moved immediately to a space in the ED, separate from other patients and with access to a dedicated washroom. The facility's occupational health and safety and IPAC team must be notified immediately.

EDs with Airborne Infection Isolation Rooms (AIIR) should use them to isolate suspected EVD patients. It is preferable that patients not be moved unless medically required. In determining placement, consideration should be given to ensuring that the patient is placed in a room that can accommodate changes in their clinical condition.

The patient should be kept if at all possible in the ED, pending results of testing and possible transfer to a referral centre.

For referral centres or other hospitals providing care to confirmed cases, the patient must be placed in an AIIR with negative pressure (with Ante room and dedicated washroom).

No visitors should be allowed in the patient room and entry should be restricted to as few staff as possible.

Analysis of blood specimens performed on the patient should be done as much as possible at the point of care.

Nursing Care

Two Registered Nurses are required for providing care at all times. Only those nurses fully trained, tested and drilled on hazards, protections and equipment donning and doffing should provide care and must have no other duties, and should monitor each other's adherence to procedures, particular donning and doffing personal protective equipment (PPE).

PPE should be removed and disposed of in the anteroom and hand hygiene performed before touching the face. If an anteroom is not available, PPE should be removed at the doorway upon exiting the room. PPE should be discarded in the patient room.

Fully trained and tested nurses and other HCWs should observe each other's doffing of PPE to ensure that inadvertent contamination of eyes, mucous membranes, skin or clothing does not occur.

Health care organizations have an obligation to ensure staff are trained in the use of PPE.

A manager or supervisor should be available at all times, and liaise with occupational health and safety.

When removing PPE, avoid contact between contaminated gloves/hands and equipment and the face, skin or clothing. Hands must be cleaned before contact with any part of the body. If there is any doubt, clean hands again to ensure mucous membranes (eyes, nose, mouth) are not contaminated.

Only essential equipment should be taken into the patient room. Medical devices and equipment should be disposable whenever possible. Non-disposable equipment should be dedicated to the patient until the diagnosis of EVD is excluded, the patient is discharged or the precautions are discontinued. All re-usable, noncritical equipment must be cleaned and disinfected using a hospital grade disinfectant and according to the manufacturer's instructions prior to re-use on a subsequent patient. Semicritical and critical equipment should be cleaned and high-level disinfected or sterilized using standard procedures.

Use of needles and sharps should be kept to a minimum and used for medically essential procedures only. A safety-engineered needle **must** be used. Extreme care should be used when handling all sharps. A puncture resistant sharps container must be available at point-of-use.

The risk of transmission of EVD through percutaneous injury is high, therefore only those individuals extremely skilled in performing phlebotomy should draw bloods or start lines (e.g. IV, arterial).

Personal Protective Equipment

The Chief Medical Officer of Health is requiring that health care providers use the following personal protective equipment (PPE). Sufficient quantities in a variety of sizes should be provided.

For health care providers conducting **triage** of all patients in emergency departments:

- fit tested N95 respirator
- face shield
- gown (fluid resistant or impermeable)
- gloves

Requirements may be modified if other suitable barriers are provided.

For health care providers that are at risk of exposure to a **suspect** case of EVD and/or the suspect case's environment (e.g., equipment, surfaces contaminated with blood and/or body fluids):

- fit tested N95 respirator
- goggles
- face shield
- full body barrier protection
- double gloves* (one under and one over cuff)

For health care providers that are at risk of exposure to a **confirmed** case of EVD and/or the confirmed case's environment (e.g., equipment, surfaces contaminated with blood and/or body fluids):

- fit tested N95 respirator
- goggles

- face shield
- full body barrier protection
- double gloves* (one under and one over cuff)

Aerosol generating medical procedures (AGMP) on suspect and confirmed cases should be performed only if medically necessary. All AGMPs should be performed in an Airborne Infection Isolation Room (Negative Pressure Room), with the use of a powered air-purifying respirator (PAPR) with a hood. Limit the number of staff to the minimum required to safely perform the procedure. Visitors should not be present. Whenever possible the procedure should be performed by the most highly experienced staff member available.

All staff entering the AIIR must wear:

- PAPR with a hood
- full body barrier protection
- double gloves* (one under and one over cuff)

Following the procedure, the room should be cleaned (see below).

Cleaning and Decontamination

Blood and all body fluids including sweat from EVD patients are highly infectious. Cleaning of the patient room is important to reduce environmental contamination, which in turn decreases the risk of transmission to HCWs. Safe handling of potentially infectious materials and the cleaning and disinfection of the patient's environment is paramount.

Experienced environmental services (ES) staff trained in OHS/IPAC practices and use of PPE should be assigned to perform these tasks. ES staff cleaning the room must use the same PPE as other HCWs.

Routinely used hospital grade disinfectants used in accordance with the manufacturer's recommendations are sufficient for cleaning the room.

All used cleaning wipes/cloths of waste should be disposed of in leak-proof colour-coded bags/containers, doubled bagged and outer container wiped with disinfectant before removal from room.

The frequency of cleaning should be based on the level of contamination with blood and/or body fluids. Housekeeping equipment should be disposable or remain in the room for the duration of the patient admission.

Upon discharge of the patient, discharge/terminal cleaning of the room should follow the recommended practice for discharge/terminal cleaning of a room on Contact/Droplet Precautions. In addition to routine cleaning:

- Remove all dirty/used items (e.g. suction container, disposable items)
- Dispose of curtains (privacy, window, shower) before starting to clean the room
- Discard everything in the room that cannot be cleaned

· Use fresh cloths, mop, supplies and solutions to clean the room
· Use several cloths to clean a room. Use each cloth one time only

- Do not dip a cloth back into disinfectant solution after use. DO NOT RE-USE CLOTHS
- Clean and disinfect all surfaces and allow for the appropriate contact time with the disinfectant as per manufacturer's recommendations.
- All housekeeping equipment must be cleaned and disinfected before being put back into general use.

Duration of Precautions

For patients with confirmed EVD, precautions should remain in place until all symptoms have resolved. Patients should be assessed on a case-by-case basis in consultation with an infectious disease specialist.

Monitoring and Management of Potentially-Exposed Health Care Providers

Organizations should develop policies for monitoring and management of potentially-exposed HCWs. Follow-up of HCWs who are potentially exposed is the role of the employee health/ occupational health and safety (OHS) staff or department.

Persons with percutaneous or mucocutaneous exposures to blood, body fluids, secretions, or excretions from a patient with suspected EVD should:

Stop working and immediately wash the affected skin surfaces with soap and water. For mucous membrane splashes (e.g., conjunctiva) irrigate with copious amounts of water or eyewash solution.

Immediately contact a supervisor and occupational health for assessment and post-exposure management for blood-borne pathogens (e.g., hepatitis B virus, hepatitis C virus, and HIV) as per usual organizational policy. HCWs who have been caring for or exposed to EVD patients, and subsequently develop fever, should:

- Not report to work or immediately stop working
- Notify their supervisor and Occupational Health Department
- Seek prompt medical evaluation and testing as clinically indicated
- Comply with work exclusion as per their OHS/local public health unit (PHU) until they are deemed no longer potentially infectious to others

For asymptomatic HCWs who had an unprotected exposure (e.g., not wearing recommended PPE at the time of patient contact or through direct contact to blood or body fluids) to a patient with EVD:

- They should receive medical assessment and follow-up care including fever monitoring twice daily for 21 days after the last known exposure.
- Organizations should consider policies ensuring twice daily contact with exposed HCWs to discuss potential symptoms and document fever monitoring checks.
- They should not have any patient contact for 21 day following the unprotected exposure.

- HCWs returning to work after caring for EVD patients in affected areas in West Africa should notify their organization prior to returning to work and should perform twice daily fever monitoring as above.
- Checkup surveillance of all involved in care.

Transportation of Suspect or Confirmed Patients

Internal Transportation

Patients should not leave the room or be transferred internally except for essential medical procedures. Transport staff must be aware of the patient's status and the required PPE. Patients with respiratory symptoms should wear a mask to contain respiratory droplets during transport. During initial transport from the ED, or during subsequent transport, staff and patients should be excluded from the transport pathway wherever possible.

If an internal transfer cannot be avoided ensure the new room is ready before transfer to minimize time outside of the patient room. HCWs providing transport must discard PPE as they leave the room, and put on new PPE. Prior to transporting the patient for diagnostic testing, the receiving unit must be fully aware of the patient's impending arrival and be prepared to perform testing immediately. Patients should be transported using the most direct route to their destination. Staff transporting the patient should wear full PPE (full body protection, respirator, gloves, full face shield) as such patients are potentially unstable and may require care during transportation. If the patient is coughing, a surgical mask should be placed over the mouth and nose. Following the procedure, the room should be cleaned.

External Transportation

Only certified ambulance services will transport a suspect or confirmed case of EVD. Emergency Medical Services staff must be notified of the patient's status to determine the requirements for transportation of the patient from any facility to a designated EVD treatment facility. Emergency Medical Services will provide designated ambulance resources, specially trained paramedics and specialized Personal Protection Equipment to perform the inter-facility transfer.

Emergency Medical Services staff may contact potential or suspect EVD cases by requests from the public through the ambulance dispatch centers or 9-1-1. In most cases, PPE for specific Contact/Droplet Precautions will suffice for these patients. Enhanced ambulance dispatch centre screening of callers will provide new information to responding ambulances to assist Emergency Medical Services staff (paramedics) in risk assessment and determining the requirements for any additional PPE practices for the patient.

Communications

Internal Communications

For cases of suspected or confirmed EVD, occupational health and safety and IPAC must be notified immediately. Laboratory directors and microbiologists must be contacted prior to the collection of any specimens. In addition, notify administrative leadership and public relations, as EVD can generate significant media interest. A strategy for internal communications within the organization to reach all staff is important. Easy access to updated policies, procedures, fact sheets and Q and A's geared to varied educational and language levels are examples. Maintaining patient confidentiality in the face of media interest is a challenge. HCWs should be reminded of their legal responsibilities under the *Personal Health Information Protection Act*.

External Communications

All cases of suspect or confirmed EVD shall be reported to the local Public Health Unit immediately. Hospitals and health care facilities caring for patients with suspect or confirmed EVD should have a communications plan in place to deal with media interest while ensuring patient confidentiality.

Note that the Ministry of Health and Long-Term Care (MOHLTC) may activate the Ministry Emergency Operations Centre (MEOC) to coordinate and direct the health system's response in the event of a confirmed case of EVD in Ontario. As part of this coordination, the MEOC will support health system partners to implement a coordinated communications strategy.

Reporting to Public Health Unit

VHFs, including EVD, are designated as a reportable disease in Ontario. As per subsection 25(1) and subsection 27(1) of the Health Protection and Promotion Act, (HPPA), physicians, health care practitioners and hospitals administrators are required by law to report to the medical officer of health of the PHU in which professional services are being provided, any patient who has or may have a reportable disease such as EVD. Therefore, any patient being investigated for EVD must be reported to the appropriate medical officer of health.

Those reporting a patient who has or is under investigation for EVD are required to provide the medical officer of health with the patient's full name and address, date of birth, sex and date of onset of symptoms. In addition, physicians and HCWs described in HPPA subsection 25(2) are required to provide the following information regarding the patient who has or is under investigation for EVD to the medical officer of health:

- The date of diagnosis.
- The name and address of the physician or registered nurse in the extended class attending the person.
- The name of the hospital and the date of admission if the person is admitted to a hospital.
- Travel history outside Canada.
- Date and place of entry into country where disease acquired.
- Date of departure from country where disease acquired.
- Date and time of entry into Canada and carrier and flight number if applicable.

- Travel within country where disease acquired by date, place and length of stay.
- Any other places visited en route to Canada.
- List places and method of travel within Canada in the week prior to and since onset of illness.

Clinical history:

- Date of onset of illness.
- Symptoms and signs of the illness.
- History of malaria or malaria prophylaxis.

Laboratory specimens:

- List all specimens collected by type and date.
- Name of laboratory where specimens may be located.
- State if ambulance was used and date of use.

Following receipt of a report of a suspect case of EVD, the PHU will notify Public Health Ontario (PHO) immediately by phone.

Any weekend or after hour notifications should be immediately referred to the PHO manager on-call via the Spills Action Centre: 416-325-3000 or 1-800-268-6060.

Once reported, PHO will report confirmed and probable cases of hemorrhagic fever immediately to the 24-hour PHAC emergency line and to the MOHLTC.

PHAC will be responsible for contacting the International Public Health Authorities under the International Health Regulations.

Note that you are also required to comply with applicable provisions of the *Occupational Health and Safety Act* and its Regulations.

David L. Mowat, MBChB, MPH, FRCPC
Interim Chief Medical Officer of Health