

Ebola Virus Disease
**Directive #4 Regarding Waste Management for Designated
Hospitals and All Paramedic Services – April 13, 2015**

**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 shall 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 currently spreading in certain countries in West Africa and at risk of spreading to Canada and to Ontario – health care workers in hospitals and paramedics services 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:

Ebola Virus Disease Directive #4 Regarding Waste Management for Designated Hospitals and All Paramedic Services

Date of Issuance: April 13, 2015

Effective Date of Implementation: April 13, 2015

Issued To*: designated¹ treatment and testing hospitals and all paramedic services

* Designated hospitals and all paramedic services must provide a copy of this Directive to the Co-chairs of the Joint Health and Safety Committee or Health and Safety Representative (if any).

¹ For more information on the designated testing and treatment hospitals, refer to the ministry's factsheet entitled [A three-tier approach to Ebola virus disease \(EVD\) management in Ontario](#).

Introduction

This Directive pertains to the management of biomedical waste that may be contaminated with Ebola virus disease (EVD).

This Directive provides instructions to Ontario's EVD designated treatment and testing hospitals² and all paramedic services on the management of biomedical waste generated by suspect patients³, persons under investigation (PUIs)⁴ or confirmed cases⁵ of EVD.

This Directive consolidates and clarifies the Ministry of Environment and Climate Change's (MOECC's) and Transport Canada's regulations. The control measures in this Directive shall be applied along with the control measures in the [Chief Medical Officer of Health \(CMOH\) EVD Directive #1 for Hospitals](#) and the [CMOH Directive #2 for Paramedic Services](#).

This Directive describes the requirements designated hospitals and all paramedic services shall follow to transport biomedical waste generated by confirmed cases offsite for disposal. This Directive also describes collection and storage requirements given that designated hospitals and all paramedic services shall store biomedical waste generated by suspect patients and PUIs in a holding area until EVD has been confirmed or ruled out through clinical determination or laboratory testing.

Personal Protective Equipment

Designated hospitals and all paramedic services shall ensure that health care workers at risk of exposure to biomedical waste generated by a suspect patient, PUI or confirmed case wear appropriate personal protective equipment (PPE) as outlined in the [CMOH Directive #1 for Hospitals](#) and the [CMOH Directive #2 for Paramedic Services](#).

² Although this Directive has not been issued to screening hospitals or primary care settings, these organizations may use the control measures in this Directive to inform their protocols and procedures.

³ A person who fails the EVD active screening process is known as a suspect patient. A suspect patient becomes a PUI when an infectious disease physician at a hospital (in consultation with the public health unit and Public Health Ontario Laboratories (PHOL)) determines that the patient requires EVD testing.

⁴ A PUI is a person 1) who has travel history to an EVD-affected country, 2) who has at least one clinically compatible symptom of EVD and 3) for whom EVD laboratory testing is recommended (based on a clinical assessment by an infectious diseases physician in consultation with the public health unit and PHOL) or laboratory or laboratory results are pending.

⁵ A confirmed case is a person with laboratory confirmation of EVD.

Training

As described in the [CMOH Directive #1 for Hospitals](#) and the [CMOH Directive #2 for Paramedic Services](#), designated hospitals and all paramedic services shall provide applied training on the use of PPE for health care workers at risk of exposure to biomedical waste generated by a suspect patient, PUI or confirmed case. Designated hospitals and all paramedic services shall also ensure that health care workers involved in the management of biomedical waste generated by these patients have been trained on the other control measures in this Directive.

Definitions

Biomedical waste

The management of biomedical waste is regulated by the MOECC.⁶ For the purpose of this Directive, biomedical waste includes any of the following:

- laboratory waste
- sharps waste
- any part of the human body, including tissues and body fluids that are infectious
- any waste that has come into contact with infectious tissues or body fluids
- waste material and any substance containing or derived from one or more of the above

Dangerous goods

Dangerous goods are defined in the [Transportation of Dangerous Goods Act](#) as “a product, substance or organism included by its nature or by the regulations in any of the classes listed in the schedule”. Each dangerous good falls within one of the nine classes of the Schedule to the act and is further identified by Divisions within the class. The Division is a more precise identification of the danger associated with the particular good within the general class. Class 6.2 is for infectious substances.

Infectious substance

An infectious substance is a substance known to or reasonably believed to contain viable micro-organisms or other agents such as prions that are known to or reasonably believed to cause disease in humans. Infectious substances are listed in Appendix 3 of Part 2 of the [Transportation of Dangerous Goods Regulations](#). Under the regulations, Ebola virus is designated as a Category A infectious substance.

Preparedness

Designated hospitals and all paramedic services shall work with an MOECC-approved biomedical waste management company to ensure that an adequate supply of appropriate biomedical waste containers⁷ is available at all times.

⁶ For more information on MOECC’s role in regulating the management of biomedical waste, see MOECC’s [Guideline C-4 - The Management of Biomedical Waste in Ontario](#).

⁷ Transport Canada maintains a [list of vendors](#) that provide appropriate type 1A containers.

Designated hospitals and all paramedic services shall ensure that the biomedical waste management company they use to remove and dispose of waste generated by a confirmed case has been approved by the MOECC for the removal and disposal of biomedical waste containing Risk Group 4 pathogens.⁸

Collection

Designated hospitals and all paramedic services shall collect the biomedical waste generated by suspect patients, PUIs and confirmed cases and place it in single-use watertight biomedical waste containers.

These waste containers shall meet the specifications outlined in MOECC's [Guideline C-4: The Management of Biomedical Waste in Ontario](#). They shall be a rigid and leak-proof plastic drum or pail capable of withstanding the weight of the biomedical waste without cracking, crushing, breaking or otherwise allowing the accidental release or discharge of the waste if the container is dropped. The waste containers shall be red (or have a red label) and shall be clearly marked with the universal biohazard symbol.

Designated hospitals and all paramedic services shall collect sharps generated by these patients in single-use sharps waste containers. These sharps waste containers shall meet the specifications outlined in the MOECC's [Guideline C-4: The Management of Biomedical Waste in Ontario](#). The single-use sharps container shall (a) be made of rigid materials that are puncture and leak resistant and (b) have a lid which cannot be removed after the container is sealed.

Transport to the Holding Area

Designated hospitals and all paramedic services shall seal all waste containers as per the manufacturer's suggestions. Prior to transporting the containers to a holding area, designated hospitals and paramedic services shall disinfect the outside surfaces of the containers using an approved hospital-grade disinfectant that is effective against non-enveloped viruses.⁹

In designated hospitals, health care workers transporting waste containers shall doff PPE as they leave the room where the waste was collected and don new PPE before entering the hallway.

Paramedic services shall ensure that biomedical waste is not transported in the front cab of the ambulance – it should be transported in the back of the ambulance where patient care activities take place.

Designated hospitals and all paramedic services shall transport waste containers to the holding area using the most direct route.

⁸ The [Human Pathogens and Toxins Act](#) classifies the Ebola virus as a Risk Group 4 pathogen.

⁹ EVD is an enveloped virus. Given that non-enveloped viruses are more difficult to destroy than enveloped viruses the stronger disinfectants used to destroy non-enveloped viruses are effective against EVD.

Storage

The holding area for biomedical waste storage does not need to be exclusively used for waste from suspect patients, PUIs, or confirmed cases.

However, designated hospitals and all paramedic services shall clearly label waste containers that contain biomedical waste generated by suspect patients, PUIs and confirmed cases. These waste containers shall be easily distinguishable from other waste containers in the holding area.

Designated hospitals and all paramedic services shall ensure that the holding area is refrigerated and not accessible to the general public.

Offsite Transfer and Disposal

Designated hospitals and all paramedic services shall not transfer biomedical waste offsite for disposal until EVD is ruled out or confirmed.

If test results confirm the patient has EVD, designated hospitals and all paramedic services shall classify the biomedical waste generated by a confirmed case as an **INFECTIOUS SUBSTANCE, AFFECTING HUMANS, Class 6.2, UN2814, Category A** and label it accordingly with permanent marker or appropriate adhesive label.

Designated hospitals and all paramedic services shall package the biomedical waste prior to transportation for offsite disposal in Type 1A containers¹⁰ as required by [Transportation of Dangerous Goods Regulations](#).

Type 1A containers:

- employ three layers of packaging, including watertight primary receptacle(s), watertight secondary packaging with absorbent material, and outer packaging
- meet or exceed the CAN/CGSB-43.125 standard based on drop tests, impact tests, and internal pressure tests, include appropriate labeling, and are certified for road, rail and air transport
- are a United Nations (UN) standardized means of containment, with appropriate UN marking on the outer packaging

As per subsection 7.1(7) of the [Transportation of Dangerous Goods Regulations](#), transportation and offsite disposal of biomedical waste containing EVD requires an Emergency Response Assistance Plan (ERAP) approved by Transport Canada. Designated hospitals and all paramedic services shall consult with an MOECC-approved biomedical waste management company regarding the preparation and activation of an ERAP.

If test results rule out EVD, designated hospitals and all paramedic services shall dispose of the patient's biomedical waste according to standard procedures and processes.

¹⁰ Designated hospitals and all paramedic services can refer to Transport Canada's [FAQ Website on Type 1A Containers](#) for more information on Type 1A containers.

Wastewater Stream

The CMOH and Ministry of Health and Long-Term Care are collaborating with stakeholders to develop a strategy to support designated hospitals and all paramedic services to adhere to municipal requirements regarding the disposal of biomedical waste via local sanitary sewer systems. When this strategy is developed, the CMOH will issue an updated Directive regarding Waste Management for Designated Hospitals and All Paramedic Services.

Questions

Designated hospitals and all paramedic services may contact the ministry's Health Care Provider Hotline at 1-866-212-2272 or emergencymanagement.moh@ontario.ca with any questions or concerns about this Directive.

Designated hospitals and all paramedic services are also required to comply with applicable provisions of the [Occupational Health and Safety Act](#) and its Regulations.



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