

Training Bulletin

Febrile Respiratory & Enteric Illness

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Emergency Health Services Branch
Ministry of Health and Long-Term Care



Febrile Respiratory & Enteric Illness

Introduction

In response to the Ebola virus disease (EVD) outbreak in West Africa, Public Health Ontario has developed and released several screening tools for the healthcare sector, including one for emergency medical services. At the same time, the Medical Advisory Committee (MAC) has provided recommendations to the Ministry of Health and Long-Term Care, Emergency Health Services Branch (EHSB) specifically for paramedics.

What is Ebola

Ebola Virus Disease is an acute life-threatening illness caused by subtypes of the Ebola virus that are known to affect humans and primates such as monkeys, chimpanzees, and gorillas. Infection is characterized by fever, headache, muscle pain, intense weakness, cough, stomach pain, vomiting and diarrhea. As the virus multiplies, more severe symptoms such as profound bleeding and multi-organ failure manifest. The time between exposure to the virus and the appearance of symptoms ranges from 2 to 21 days. After the onset of symptoms, a person with Ebola is contagious and can spread the virus to others.¹

For updated information on Ebola virus disease for please visit www.publichealthontario.ca/ebola.

EMS Screening Tool

Public Health Ontario has released a thorough document intended to assist paramedics in the initial assessment and management of both symptomatic and asymptomatic returning travellers from countries/areas affected by Ebola virus disease. For updates please visit http://www.publichealthontario.ca/en/eRepository/EVD_screening_tool EMS.pdf. The most current version, dated September 19, 2014 has been included as an appendix for your reference.

This training bulletin provides advice that was developed by the MAC from national and provincial public health authorities.

MAC Recommendations

Listed below are the EHSB approved MAC recommendations for paramedics regarding application of Medical Directives in the setting of a patient with potential infectious symptoms and a relevant travel history:

1. There is very limited evidence to suggest that any medical procedures increase the risk of disease transmission when appropriate PPE is being used. There is no evidence that Ebola virus disease is transmitted by aerosols. Use of screening tools and PPE should assist paramedics in taking appropriate steps to protect themselves and others from a variety of potential infections.

¹ Fast Facts – Ebola Virus Disease – Staying Healthy and Safe at Work! Public services Health & Safety Association http://www.pshsa.ca/wp-content/uploads/2014/09/PSHSA-Fast-Facts-Ebola-Virus-Disease_updated-latest.pdf

2. Paramedics should take note of information gained from dispatch regarding screening for acute febrile illness, and should incorporate screening as part of their own assessment.
3. Paramedics should don PPE if there is even a low threshold of concern.
4. If there is concern for acute febrile illness and a relevant travel history, the following aerosol generating procedures should be avoided unless absolutely necessary: Endotracheal intubation (e.g. utilize BVM during cardiac arrest), CPAP, and nebulized medications.
5. If there is concern for acute febrile illness and a relevant travel history, the following procedures should be applied cautiously when necessary: supplemental oxygen should be applied with a device that filters exhaled gases and manipulation of the mask after application should be minimized, bag valve mask ventilation (a two handed seal with a filter is preferred if feasible), intravenous or percutaneous injections (avoid initiating any injection or percutaneous access in a moving vehicle or with a combative patient).

As a reminder, always follow Routine Practices which includes frequent hand hygiene and this information is included on the Public Health Ontario “Just Clean Your Hands” website available at <http://www.publichealthontario.ca/en/BrowseByTopic/InfectiousDiseases/JustCleanYourHands/Pages/Just-Clean-Your-Hands.aspx> and in the Provincial Infectious Diseases Advisory Committee (PIDAC) Hand Hygiene fact sheet found at: http://www.publichealthontario.ca/en/eRepository/PIDAC_Hand_Hygiene_Fact_Sheet_2013.pdf

Appendix

EMS Screening Tool

Initial assessment and management of the returning traveller from countries/areas affected by Ebola virus disease for Emergency Medical Services

September 19, 2014

This document is intended to assist in the initial assessment and management of both symptomatic and asymptomatic returning travellers from countries/areas affected by Ebola virus disease. As the risk of Ebola virus disease in Ontario is currently very low, routine screening specifically for Ebola virus disease is not currently recommended. Usual screening practices for your setting should continue. Patients with a recent travel history should be asked about travel to countries/areas affected by Ebola virus disease. Please visit www.publichealthontario.ca/ebola for updated information on Ebola virus disease.

ASSESSMENT

1. TRAVEL HISTORY

In the past 21 days, have you been to any of the following countries/areas?

Note: These countries/areas are current as of September 5, 2014. For updated geographic information, visit the [Public Health Ontario website](http://www.publichealthontario.ca)

- Guinea
- Sierra Leone
- Liberia
- Nigeria (Lagos and Port Harcourt)
- Democratic Republic of the Congo (Equateur Province)

YES

NO

2. FEVER OR OTHER SYMPTOMS (Note: patients WITHOUT symptoms CANNOT transmit EVD)

Are you feeling unwell with symptoms such as:

- | | | | |
|------------------------------------|--|----------------|--|
| • Fever of 38°C (101°F) or greater | Yes <input type="checkbox"/> No <input type="checkbox"/> | • Diarrhea | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| • Feeling feverish | Yes <input type="checkbox"/> No <input type="checkbox"/> | • Vomiting | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| • Severe headache | Yes <input type="checkbox"/> No <input type="checkbox"/> | • Sore throat | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| • Muscle pain | Yes <input type="checkbox"/> No <input type="checkbox"/> | • Stomach pain | Yes <input type="checkbox"/> No <input type="checkbox"/> |

YES to ANY of the above

NO to ALL of the above

| Travel history | Fever or other symptoms | Action for Emergency Medical Services (EMS) |
|----------------|-------------------------|--|
| Yes | Yes | <ul style="list-style-type: none"> Dispatch should advise paramedics that the patient has a travel history to an affected country/area and symptoms compatible with Ebola virus disease Paramedics should initiate contact and droplet precautions immediately (Note: Ebola virus disease is NOT spread through the airborne route); For paramedics as per the Ambulance Act, PPE would consist of a full face shield, a fit tested sealed N95 mask, gloves and fluid resistant gowns. Except for the N95 mask, this is as per Infection Prevention and Control Guidance for Patients with Suspected or Confirmed Ebola Virus Disease (EVD) in Ontario Health Care Settings. Additional precautions such as a fluid impermeable gown, head covering and leg/foot covering (as per Infection Prevention and Control Guidance for Patients with Suspected or Confirmed Ebola Virus Disease (EVD) in Ontario Health Care Settings) may be indicated based on the clinical presentation of the patient, such as in situations where gross contamination is possible (e.g., significant bleeding, vomiting or diarrhea) Isolate the patient from any further direct contact with persons not wearing full PPE. Transfer patient to the ambulance as soon as possible. Wrap patient in linen as much as possible to avoid environmental contamination If the patient is coughing, provide them with a surgical mask to wear if tolerated. If the patient requires oxygen, a nasal cannula under the mask can be used or an oxygen mask with a filter system should be used (e.g high concentration / low flow oxygen mask) as appropriate Do not attempt aerosol generating medical procedures such as nebulized therapy or endotracheal intubation unless absolutely necessary. If patient is in cardiac arrest, provide CPR and bag valve mask (BVM) only Both dispatch and the paramedics should notify the receiving emergency department of the travel history and symptoms of the incoming patient in order to ensure appropriate assessment and infection prevention and control precautions on arrival Do not wear PPE in the cab of the ambulance. The driver should remove PPE and perform hand hygiene as per PIDAC's Routine Practices and Additional Precautions document and videos. If assisting with transferring the patient to the ER on arrival at the hospital, the driver should put on appropriate PPE All discarded PPE and materials contaminated with blood or body fluids must be taken to the hospital in a bio-hazard bag and disposed of there; do not discard any on the scene or outside of a hospital setting Once the patient has been transferred to the emergency department stretcher, immediately clean any surfaces or equipment the patient or their body fluids have physically contacted (e.g., stretcher, ambulance surfaces) with an approved hospital-grade cleaner/disinfectant as per PIDAC's Environmental Cleaning for Prevention and Control of Infections Soiled linen should be placed in leak-proof bags at the point of use and placed in linen containers as per service procedure. Container surfaces should be disinfected before removal from site. Services should speak with their contracted linen supply company for specific direction. Laundry staff should be aware of the potential risk and wear appropriate PPE while handling soiled linen. Remove PPE and perform hand hygiene as per PIDAC's Routine Practices and Additional Precautions document and videos |
| Yes | No | <ul style="list-style-type: none"> Check the patient's temperature. If febrile, or the patient gives a history of fever greater than 38.0°C, manage as per above. Otherwise provide usual care |
| No | Yes | <ul style="list-style-type: none"> Follow usual EMS protocols based on presentation |
| No | No | <ul style="list-style-type: none"> Usual EMS care |

