Global Medical Services

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GLOBAL MEDICAL SERVICES: MEDICAL DIRECTOR UPDATE:

Recommendations for EMS and Medical First Responder Personnel Including Firefighter and Law Enforcement First Responders for the Management of Patients with Suspected 2009 H1N1 (Swine Flu) Infections

In our role as your Fire Department Medical Director, we would like to provide guidance on several issues related to the management of patients with suspected 2009 H1N1 infections (see Appendix 1 for case definitions). We have extensively reviewed the available guidelines and agree at this point with the current recommendations from the Public Health Agency of Canada (PHAC) and the US Center for Disease Control. For the purposes of this document "EMS providers" means pre-hospital EMS, Law Enforcement and Fire Service First Responders. EMS providers' practice should be based on the most up-to-date 2009 H1N1 clinical recommendations and information from appropriate public health authorities and the acute care medical community.

The British Columbia Center for Disease Control has confirmed 2009 H1N1 influenza cases exist in several geographical areas across B.C. The potential for additional cases exists and as your Medical Director we recommend the following:
(reference: http://www.cdc.gov/swineflu/)

- Step 1: Address scene safety:
  - If EMS dispatch advises potential for acute febrile respiratory illness symptoms on scene, EMS personnel should don PPE (see below for details) for suspected cases of 2009 H1N1 influenza prior to entering scene.
  - If EMS dispatch has not identified individuals with symptoms of acute febrile respiratory illness on scene, EMS personnel should stay more than 6 feet away from patient and bystanders with symptoms and exercise appropriate routine respiratory droplet precautions while assessing all patients for suspected cases of 2009 H1N1 influenza.

- Step 2: Assess all patients for symptoms of acute febrile respiratory illness (fever plus one or more of the following: nasal congestion/ rhinorrhea, sore throat, or cough):
  - If no symptoms of acute febrile respiratory illness, provide routine EMS care.
  - If symptoms of acute febrile respiratory illness, don appropriate PPE for suspected case of 2009 H1N1 influenza if not already on.
  - If symptoms of acute febrile respiratory illness, consider placing a standard surgical mask on the patient, if tolerated.

Personal protective equipment (PPE) Interim recommendations:

- When treating a patient with a suspected case of 2009 H1N1 influenza as defined above, the following PPE should be worn:
    - Fit-tested disposable N95 respirator and eye protection (e.g., goggles; eye shield), disposable non-sterile gloves, and gown, when coming into close contact with the patient.
    - Use good respiratory hygiene – use non-sterile gloves for contact with the patient, patient secretions, or surfaces that may have been contaminated. Follow hand hygiene including hand washing or cleansing with alcohol based hand disinfectant after contact.

- In the pre-hospital environment EMS providers should have a low threshold to don N95 masks for patient care. This recommendation reflects the uncontrolled pre-hospital environment including incomplete information to accurately triage, challenges in scene control, a closed work environment and lack of ventilation.
- When transporting, encourage good patient compartment vehicle airflow/ ventilation to reduce the concentration of aerosol accumulation when possible.

Infection Control

EMS agencies should always practice basic infection control procedures including vehicle/equipment decontamination, hand hygiene, cough and respiratory hygiene, and proper use of authorized medical personal protective equipment (PPE).

Interim recommendations:

- Pending clarification of transmission patterns for this virus, EMS personnel who are in close contact with patients with suspected or confirmed 2009 H1N1 influenza cases should wear a fit-tested disposable N95 respirator, disposable non-sterile gloves, eye protection (e.g., goggles; eye shields), and gown, when coming into close contact with the patient.
- All EMS personnel engaged in aerosol generating activities (e.g. endotracheal intubation, nebulizer treatment, and resuscitation involving emergency intubation or cardiac pulmonary resuscitation) should wear a fit-tested disposable N95 respirator, disposable non-sterile gloves, eye protection (e.g., goggles; eye shields), and gown, unless EMS personnel are able to rule out acute febrile respiratory illness.. This recommendation applies to First Responders in the same room where an Aerosol Generating Medical Procedure (AGMP) is being performed.

- All patients with acute febrile respiratory illness should wear a surgical mask, if tolerated by the patient.

Facility Transport (Accompanying the patient in the Ambulance)

EMS personnel involved in the transferring of patients with suspected or confirmed 2009 H1N1 infection should use standard, droplet and contact precautions for all patient care activities. This should include wearing a fit-tested disposable N95 respirator, wearing disposable non-sterile gloves, eye protection (e.g., goggles, eyeshield), and gown, to prevent conjunctival exposure. If the transported patient can tolerate a facemask (e.g., a surgical mask), its use can help to minimize the spread of infectious droplets in the patient care compartment. Encourage good patient compartment vehicle airflow/ ventilation to reduce the concentration of aerosol accumulation when possible.

Interim Guidance for Cleaning EMS Transport Vehicles after Transporting a Suspected or Confirmed Swine-origin Influenza Patient

The following are general guidelines for cleaning or maintaining EMS transport vehicles and equipment after transporting a suspected or confirmed 2009 H1N1 influenza patient. This guidance may be modified or additional procedures may be recommended by the Centers for Disease Control and Prevention (CDC) as new information becomes available.

Routine cleaning with soap or detergent and water to remove soil and organic matter, followed by the proper use of disinfectants, are the basic components of effective environmental management of influenza. Reducing the number of influenza virus particles on a surface through these steps can reduce the chances of hand transfer of virus. Influenza viruses are susceptible to inactivation by a number of chemical disinfectants readily available from consumer and commercial sources.

After the patient has been removed and prior to cleaning, the air within the vehicle may be exhausted by opening the doors and windows of the vehicle while the ventilation system is running. This should be done outdoors and away from pedestrian traffic. Routine cleaning methods should be employed throughout the vehicle and on non-disposable equipment.

For additional detailed guidance on ambulance decontamination EMS personnel may refer to "Interim Guidance for Cleaning Emergency Medical Service Transport Vehicles during an Influenza Pandemic" available at:
http://www.pandemicflu.gov/plan/healthcare/cleaning_ems.html

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Facemasks & Respirators

The term "facemasks" refers to disposable masks cleared by the U.S. Food and Drug Administration (FDA) and endorsed by PHAC for use as medical devices. This includes facemasks labeled as surgical, dental, medical procedure, isolation, or laser masks. Such facemasks have several designs:

- One type is affixed to the head with two ties, conforms to the face with the aid of a flexible adjustment for the nose bridge, and may be flat/pleated or duck-billed in shape.
- Another type of facemask is pre-molded, adheres to the head with a single elastic band, and has a flexible adjustment for the nose bridge.
- A third type is flat/pleated and affixes to the head with ear loops.

"Respirator" refers to an N95 or higher filtering face piece respirator certified by the U.S. National Institute for Occupational Safety and Health (NIOSH) and the PHAC.

For ongoing updates, please visit Global's H1N1 Influenza A site for Health Care Professionals at www.global-consulting.ca. For any emergency operational concerns, please contact the GMS Medical Directors at 604-685-4747 or on our emergency pager 1-800-434-4797

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Appendix 1
Case Definitions for Infection with 2009 H1N1 Influenza A Virus

A ***confirmed case*** of 2009 H1N1 infection is defined as a person with an acute febrile respiratory illness with laboratory confirmed 2009 H1N1 influenza at CDC by one or more of the following tests:

1. real-time RT-PCR
2. viral culture

A ***probable case*** of 2009 H1N1 influenza infection is defined as a person with an acute febrile respiratory illness who is positive for influenza A, but negative for H1 and H3 by influenza RT-PCR

A ***suspected case*** of 2009 H1N1 influenza infection is defined as a person with acute febrile respiratory illness with onset:

- within 7 days of close contact with a person who is a confirmed case of 2009 H1N1 infection , or
- within 7 days of travel to community either within the United States or internationally where there are one or more confirmed cases of 2009 H1N1 influenza, or
- resides in a community where there are one or more confirmed cases of 2009 H1N1 infection .

Appendix 2

Recommendations for 9-1-1 Public Safety Answering Points (PSAP)

It is important for the PSAPs to question callers to ascertain if there is anyone at the incident location who is possibly afflicted by the swine-origin influenza A (H1N1) virus, to communicate the possible risk to EMS personnel prior to arrival, and to assign the appropriate EMS resources. PSAPs should review existing medical dispatch procedures and coordinate any modifications with their EMS medical director and in coordination with their local department of public health.

Interim recommendations:

PSAP call takers should screen all callers for any symptoms of acute febrile respiratory illness. Callers should be asked if they, or someone at the incident location, has had nasal congestion, cough, fever or other flu-like symptoms.

If the PSAP call taker suspects a caller is noting symptoms of acute febrile respiratory febrile illness, they should make sure any first responders and EMS personnel are aware of the potential for “acute febrile respiratory illness” before the responders arrive on scene.