

15. Emergency Medical Services

There were too few ambulances to carry the sick to the hospital, so mules pulled ambulance carts until the mules, exhausted, stopped working.

The Great Influenza, John M. Barry

Based on an attack rate of 35%, Ontario is estimating about 61,254 hospitalizations over a six to eight week period and 2.3 million visits to a flu assessment centre or other outpatient setting.

Under the *Ambulance Act*, municipalities and designated delivery agents are responsible for providing land ambulance services within their jurisdiction. During an influenza pandemic, Emergency Medical Services (EMS) will be responsible for providing land ambulance services in their jurisdiction, including the medically necessary transport of influenza patients.

15.1 Objectives

- To provide guidance for municipalities and designated delivery agents in planning for emergency medical services during an influenza pandemic.

15.2 Planning

Municipalities and designated delivery agents need to review their emergency and business continuity plans to ensure they are adequate in the event of an influenza pandemic (see Chapter 15A: EMS Pandemic Preparedness Checklist).

Municipal and designated delivery agent EMS services need to:

- be part of pandemic planning through their local public health unit
- work with local and regional health facilities to ensure consistent use of the Provincial Transfer Authorization

Centre (PTAC) for all inter-facility patient transfers

- work with the medical officer of health to develop plans/protocols specific to transferring patients who meet the *Ambulance Act* criteria for ambulance transport to and from designated non-hospital flu centres
- assist the medical officer of health in developing plans for alternate means of transportation for patients who do not meet the *Ambulance Act* criteria for transport by ambulance
- incorporate non-hospital flu centres into plans so Ambulance Communications Services can dispatch ambulances to those non-hospital destinations
- identify possible transfer issues that may arise during an influenza pandemic
- test and evaluate any contingency plans.

15.3 Continuity of Operations/Surge Capacity

Emergency Medical Services have extensive contingency plans in place, including:

- tiered response agreements with other emergency services (e.g., firefighters, police) to assist with response to emergencies if there will be a delay in the ability of an ambulance to respond

- regulations (in the *Highway Traffic Act*) that allow EMS to use other emergency responders (e.g., police, firefighters) as drivers
- staffing/human resource plans to enable services to continue to operate 24/7 in the event of human resource shortages
- mutual aid agreements with ambulance services in neighbouring communities/regions
- processes under the Agreement on Internal Trade to certify paramedics trained outside Ontario.

To prepare for a pandemic, EMS agencies are encouraged to:

- adapt tiered response agreements to include a plan to respond to an influenza pandemic
- establish a protocol for triaging patients with symptoms of influenza-like illness that will help reduce the pressure on EMS
- identify non-critical services that could be scaled back or eliminated in a declared pandemic emergency
- ensure contingency staffing/human resources plans address the possibility of 20% or more of the EHS workforce being unable to work
- ensure mutual aid agreements and memorandums of understanding are up to date and appropriate for use during an influenza pandemic.

15.4 Supplies and Equipment

Like other parts of the health care system, Emergency Medical Services are expected to maintain a four-week supply of equipment and supplies, and the Ministry of Health and Long-Term Care will

maintain an additional four-week supply of basic personal protective equipment (to cover the first wave of a pandemic). EMS are also expected to work with their suppliers to ensure an ongoing source of supplies and equipment during a pandemic.

See Chapter 10A for a supplies and equipment template specific to EMS.

15.5 Infection Prevention and Control/Occupational Health and Safety

Because of the nature of their work (i.e., responding to patients with unknown diagnoses), paramedics already maintain a high level of infection prevention and control (e.g., use of N95 respirators) to protect themselves and the people they transport from exposure to infectious diseases.

All staff should receive ongoing education in infection prevention and control. For guidelines on infection control, see: *Infection, Prevention and Control Best Practices Manual for Land Ambulance Paramedics Vol. 1.0*; and Chapter 7 of OHPIP.

As part of their planning, EMS agencies may consider implementing certain engineering controls and administrative practices to reduce the potential spread of influenza in offices, administrative centres and the field, such as:

- promoting annual influenza immunization
- establishing hand sanitizer stations at entrances to stations and other system facilities (e.g., dispatch/supply centres)
- screening staff for symptoms of influenza-like illness

- reviewing cleaning/ disinfection protocols
- restricting visitors
- during a pandemic, holding meetings via teleconference or cancelling meetings or training activities.

Occupational Health and Safety

Tip Box

Employers have developed and implemented appropriate measures, procedures and training for the protection of workers in consultation with Joint Health & Safety Committees (JHSC) or Health and Safety Representatives and Infection Prevention and Control resources. See measures in Chapter 7 for more information.

Some examples of controls for emergency medical services include:

- surgical mask on patient in transport (as appropriate)
- hand hygiene and cough etiquette practices
- appropriate IPC housekeeping practices by trained workers
- education and training for workers and supervisors
- personal protective equipment (based on risk assessment)

Web resources: <http://www.labour.gov.on.ca>;
<http://www.ricn.on.ca>;
<http://www.osach.on.ca>;
<http://www.whsc.on.ca>

For more information on Occupational Health and Safety Measures and Infection Prevention and Control in Health Care Settings consult the OHPIP Chapter 7.

Psychosocial Support for Workers

During an influenza pandemic, EMS staff are likely to be working extended or extra shifts. EMS should have in place strategies to help staff cope with:

- responder fatigue
- the discomfort of wearing personal protective equipment for long periods of time

- stress and anxiety.

For more information on psychosocial support for workers, see Chapter 21. During the SARS outbreaks in Toronto, paramedics reported that the most difficult part of their work was dealing with the “unknown”. EMS should work closely with hospitals, nursing homes and other settings to establish open, effective communication systems.

15.6 The Role of First Responders in Surveillance

The EHS system can play a vital role in surveillance and contact tracing – particularly when all requests for inter-facility transfers are submitted through the Provincial Transfer Authorization Centre (PTAC). First responders are often the first to notice an outbreak pattern (e.g., large number of requests for transfers from a particular nursing home, which may go to different hospitals).

When all inter-facility transfers are made through PTAC, the system can trace all patients who may have been exposed in the health care setting. This was the case during the SARS outbreak in Toronto. PTAC helped facilities quickly identify people who had been exposed so they could be isolated.

15.7 Air Ambulance Services

Ornge, a non-profit organization, was appointed in July 2005 by the Ontario Ministry of Health and Long-Term Care to coordinate all aspects of Ontario’s air ambulance system.

Education

Ornge has an infection control manual that sets out appropriate precautions for preventing illness in Ornge staff. When

the World Health Organization declares a pandemic, the manual will be updated to reflect the epidemiology of the novel virus and Ornge will implement a focused education plan to ensure all staff are aware of appropriate infectious control procedures. The manual and education plan will be reviewed and updated on an on-going basis as scientific information about the novel virus evolves.

Triage

Triage decisions about the most effective use of air ambulance services during a pandemic will depend on the patient's probability of survival, the availability of resources, and the needs of other patients who also require our services.

Ornge will utilize the Critical Care Triage Criteria outlined in OHPIP (Chapter 17) when triaging critically ill patients for transport.

Optimizing Ornge Capacity

Ornge will need to find novel ways to optimize its ability to maintain services during a pandemic including:

- deferring services for non-life threatening conditions where no severe adverse health consequences are anticipated from the delay or cancellation of services (e.g., primary care non-urgent transports). These services, including the length of time they can be deferred, will be identified as part of pre-pandemic planning
- ensuring that contractual providers have a pandemic/business continuity plan in place
- developing a plan to re-deploy Ornge staff, including PCP staff who will be freed up when primary care non-

urgent transports on dedicated critical care aircraft are deferred.

- deferring staff holidays until the pandemic wave is over
- altering current crew configurations as required from two Critical Care Paramedics to one Critical Care Paramedic and one Acute Care Paramedic; and from one Critical Care Paramedic and one Acute Care Paramedic to one Acute Care Paramedic and one Primary Care Paramedic to maximize existing resources.

Equipment

To prepare to function during a pandemic, Ornge will need to stockpile appropriate personal protective equipment (PPE) for all staff who have direct contact with patients, including paramedics, nurses, and pilots. A four-week stockpile of PPE will be required, and quantities will be calculated by predicted call volumes for each base. The PPE required will include:

- N95 respirators
- gowns
- gloves
- goggles.

Supply chains will be organized now to ensure Ornge can access enough supplies at the outset of a pandemic to adequately protect staff past the initial 56-day stockpile if required.

15.8 Next Steps

EHS will:

- develop more detailed plans to provide psychosocial support for workers

- develop guidelines for resuscitating patients with influenza
- develop guidelines for transporting people who have died from influenza
- work with hospitals, nursing homes and other settings to establish effective communications about patients being transported and enhance transfer services
- explore alternate/ expanded roles for paramedics.