

RISK MANAGEMENT NEWSLETTER VOLUME 6, NO. 1

Seasonal Influenza Readiness

Background

Seasonal influenza (generally referred to as ‘flu’) is among Canada’s top 10 infectious diseases, affecting millions of Canadians every year. An estimated 10-20% of the population becomes infected.¹ Flu results in approximately 12,200 hospitalizations, and on average, accounts for 3,500 deaths in Canada annually.²

Flu seasons are unpredictable in a number of ways. While flu spreads every year, the timing, severity, and length of the season usually varies from one season to another. Flu severity depends on many factors including what flu viruses are spreading, when the vaccine is available, and how well the flu vaccine is matched to flu viruses causing illness.³ In Canada, seasonal flu generally occurs each year in the late fall and winter months.⁴

Although seasonal flu is unpredictable, it is a recurring pressure on the Canadian healthcare system’s resources during the winter. Every healthcare provider should consider seasonal influenza readiness as part of winter preparedness planning.

Influenza Facts

Influenza is an acute viral infection of the respiratory tract (nose, mouth, throat, bronchial tubes, and lungs) caused by influenza A or B viruses. Symptoms typically include the sudden onset of fever, chills, headache, muscle and joint pain, and fatigue. Nausea, vomiting and diarrhea may also occur, but this is more common in children than adults.

Influenza is highly contagious – even people with mild or no symptoms can still infect others – it can spread rapidly from person to person. Most healthy adults may be able to infect others beginning one day before symptoms develop and up to five to seven days after becoming sick.⁵

It is generally believed that flu viruses spread primarily by droplets made when people with flu cough, sneeze or talk. These droplets can land in the mouths or noses of people who are in close contact with each other. Another, but less frequent, mode of transmission may occur when a person touches a surface or object that has flu virus on it and then touches (and contaminates) his/her own mouth, eyes or nose.

¹ Public Health Agency of Canada (PHAC), *Public Health Reminder: seasonal flu*, retrieved from <http://www.phac-aspc.gc.ca/phn-asp/2014/flu-grippe-1022-eng.php>, Dec. 10, 2014.

² PHAC, op. cit.

³ Centers for Disease Control (CDC), *Flu Symptoms & Severity*, retrieved from <http://www.cdc.gov/flu/about/disease/symptoms.htm>, Dec. 31, 2014.

⁴ PHAC, *Statement on Seasonal Flu Vaccine for 2014-2015*, retrieved from <http://www.phac-aspc.gc.ca/naci-ccni/flu-grippe-eng.php>, Dec. 10, 2014

⁵ CDC, *Key Facts about Influenza & Flu Vaccine*, retrieved from <http://www.cdc.gov/flu/keyfacts.htm>, Dec. 11, 2014.



For most healthy individuals, flu is a mild, self-limiting illness with recovery within two to seven days without the need for medical care or antiviral drugs. Some people, however, are more likely to get flu complications such as pneumonia, bronchitis, sinus infections and ear infections that result in them being hospitalized. Flu also can exacerbate chronic health problems such as asthma and congestive heart failure. In the worst case scenario, flu may result in death. The most vulnerable to flu complications include children under five years olds, adults over sixty-five years old, pregnant women, and those with underlying health conditions.

Influenza Preparedness Plan

Appropriate infection prevention and control (ICP) is an essential element of annual influenza preparedness to protect the health and safety of patients, practitioners and the broader community.

The following outlines key initiatives and procedures that should be implemented in each facility during the annual influenza season:

1. Annual Healthcare Worker Influenza Immunization Programs

Currently, the most effective way to prevent flu and/or severe outcomes from it is annual vaccination. Although influenza vaccine can provide reasonable protection amongst healthy adults, it is 50-70 per cent effective depending on the age and health of the person receiving it, and on how well the circulating influenza strains match the composition of the vaccine. This does not mean that annual influenza vaccine campaigns have no merit, but rather that they are not sufficient alone to prevent flu; good infection control measures are essential in combination with flu vaccine.

2. Respiratory Etiquette

Flu (and many other respiratory illnesses) is spread easily in crowded settings (such as households) where people are in close proximity to each other. When an infected person coughs or sneezes, infected droplets get into the air and another person can breathe them in and be exposed. The virus can also be spread by direct contact when a person's hands become contaminated with influenza viruses from coughing and sneezing.

To prevent transmission it is essential that respiratory etiquette is routinely practiced including:

- cover your mouth and nose with a tissue when coughing, discard the used tissue in the nearest waste receptacle, and follow this with hand washing or using an alcohol-based hand rub;
- sneeze or cough into your upper sleeve or elbow when you don't have a tissue, and follow this with hand washing with soap and water (if available) or using an alcohol-based hand rub;
- avoid touching, and potentially contaminating, your eyes, nose, and mouth after touching frequently touched surfaces (such as door handles); and
- not sharing eating utensils, drinking glasses, towels or other personal items.



In clinical settings (such as ambulatory care), do the following:

- ensure the availability of tissues and alcohol-based hand rubs in patient and visitor waiting areas for patients and visitors;.
- provide no-touch waste receptacles for used tissue disposal;
- have patients with respiratory symptoms wear disposable surgical face masks to protect others;
- separate patients with respiratory symptoms at least three feet from others (space permitting) in common waiting areas; and
- use personal protective equipment to avoid contamination of your eyes, nose and mouth when caring for someone who is coughing or sneezing.

3. Hand Hygiene

Hand hygiene is the cornerstone of any infection control program (ICP), and is the single most important method in decreasing infections in healthcare settings via the contaminated hands of healthcare workers (HCW)⁶. On each square centimeter of a person's skin there are about 1,500 bacteria⁷. Viruses can be transferred from dry smooth surfaces up to 20 minutes after being contaminated. Consider that there are an average of 229,000 germs per square inch on frequently touched faucet handles⁸, and how frequently these are touched by healthcare providers' hands. Hand hygiene can prevent the potential risks of transmission of microorganisms to patients, the risks of healthcare worker colonization or infection caused by organisms acquired from the patient, morbidity, mortality, and costs associated with healthcare-associated infections (HAIs).

Healthcare providers should practice hand hygiene at key points in time to disrupt the transmission of microorganisms to patients including: before patient contact; after contact with blood, body fluids, or contaminated surfaces (even if gloves are worn); before invasive procedures; and after removing gloves (wearing gloves is not enough to prevent the transmission of pathogens in healthcare settings).

The use of alcohol-based hand rubs is the preferred method of hand hygiene in healthcare settings.⁹ Cleaning with an alcohol-based hand rub is quicker, more convenient and healthier for health care providers' hands. High quality alcohol-based hand rub products are good for skin, and help overcome one of health care providers' key reasons for not practicing hand hygiene routinely – dry, rough hands.

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⁶ Canadian Patient Safety Institute, *Fact Sheet 1 – The Need for Better Hand Hygiene*, 2012.

⁷ Minnesota Department of Health (MDH), Environmental Health Services, poster, *On each square centimeter of your skin there are about 1,500 bacteria*, retrieved from <http://www.health.state.mn.us/handhygiene/why/handsbacteria.pdf>, Dec. 10, 2014.

⁸ MDH, op. cit.

⁹ CHICA-Canada, Standards and Guidelines Core Committee, *CHICA-Canada Position Statement, Hand Hygiene*, 2008.