

Influenza, Pandemics and the Role of the Pharmacist

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Influenza or the Common Cold?

Influenza, known more commonly as the **flu**, is a viral infection affecting the nose, throat and bronchial tubes. It is contracted by inhaling droplets from the nose and throat of an infected individual who is coughing or sneezing, or by touching your nose, mouth and eyes after encountering a surface that an infected individual has contaminated. For the old, immunocompromised, or patient with diabetes, cardiac, lung, liver or renal disease, influenza can develop into bacterial pneumonia and can become fatal.

It is difficult for patients to tell if they have a cold or the flu. The following table differentiates the two viruses:

Symptoms	Influenza	Cold
Fever	Common, high (39-40 °C or 102-104 °C), may last three to four days	Rare
Headache	Prominent	Rare
General Aches, Pains	Usual, often severe	Sometimes; slight
Fatigue, weakness	Usual, often severe, can last up to two to three weeks	Sometimes; quite mild
Extreme Exhaustion	Early and prominent	Unusual
Stuffy Nose	Common	Common
Sneezing	Sometimes	Usual
Sore Throat	Common	Common
Chest Discomfort	Common; can become severe	Sometimes; mild to moderate
Cough	Hacking cough	Sometimes
Complications	Bronchitis, pneumonia can be life-threatening	Sinus congestion or earache
Prevention	Annual vaccination; antiviral medicines (see your doctor), frequent hand washing, avoid touching eyes, nose and mouth	No vaccinations; frequent hand washing, avoid touching your eyes, nose and mouth
Treatment	Symptom management, antiviral medication, antibiotics for infection, rest	Symptom management, lots of rest

Table 1: Health Sciences Centre Winnipeg: Influenza. Accessed August 13, 2009. Website: <http://www.wrha.mb.ca/healthinfo/a-z/influenza/coldorflu.php>

It is important to note that pandemic flu symptoms are often more contagious, severe, longer lasting and are associated with a much higher death rate.

Pandemic Planning

Influenza affects millions of people every year causing local outbreaks and regional epidemics, usually in the winter months. There are 3 types of influenza: A, B and C. Influenza A is the type that can lead to pandemics, as it is the only type that can radically change. About 3 or 4 times a century this occurs, causing millions of deaths, social disruption and high economic costs. Usually the people most affected are infants and older adults; however, no age group can be excluded. The Spanish flu claimed the lives of mostly young healthy adults between the ages of 20-40 years of age.

‘An influenza pandemic occurs when a mutation in the influenza virus produces a new subtype where humans have little or no immunity’¹. It is easily and quickly spread through humans in various countries throughout the world and generally affects 15-35% of the world’s population. A pandemic can last for 12-18 months with 2 or 3 waves lasting 6-9 weeks. The first wave of the pandemic is when the most people become ill, and this will result in about 25% illness rate over 6 weeks of the first wave. ‘Fifty percent of patients will not need clinical care, and up to 50% will seek out care in outpatient facilities; 1% will become hospitalized and 0.4% will die.’² Once a pandemic is detected, experts believe it would only take 3 months to reach Canada from anywhere in the world, and only 5-7 months to reach its maximum effects on our population. It is estimated that 9,000 - 51,000 deaths could occur in Canada without a proper vaccine.

Imagine what it would be like to have 25% of the employees in your pharmacy absent due to illness! Demands on the pharmacist’s time will already be increased as they care for the ill and the healthy who seek advice on how to avoid contracting the flu.

‘Pharmacists are strongly encouraged to review their emergency preparedness plans. CPhA has developed an extensive pandemic guide for pharmacists that includes information on the role of the pharmacist, infection control, developing your plan, supply chain issues, business continuity, etc.’³ [CPhA has posted documents on their website which can assist you with infection control and personal measures that you can adopt as best practices that will increase the odds that you will stay healthy during this flu season.](#)

http://www.pharmacists.ca/content/hcp/resource_centre/practice_resources/droplet_pandemic.cfm

http://www.pharmacists.ca/content/hcp/resource_centre/practice_resources/personal_pandemic.cfm

The Role of the Pharmacist

Pharmacists are the most accessible front line healthcare professional and have a critical role to play in a potential influenza pandemic. What is that role? Will you be ready to . . .

- Manage patients with minor illnesses so healthcare resources are available to those with more severe symptoms
- Counsel and educate on what symptoms to watch for, how to treat, and when to seek medical assistance

- Reassess the dispensing process and technician task allocation to ensure that the pharmacist is available to provide direct patient care
- Take on additional responsibilities and duties, particularly in remote areas. You may be asked to play an enhanced role in therapeutic management, possibly prescribing vaccines, antivirals and antibiotics
- Conduct vaccination clinics in pharmacies, schools and community centres; storing and distributing vaccines and other pharmaceuticals

Pharmacists can play a key role but only if they understand what that role is and if they equip themselves with the skills they need to effectively manage a potential flu pandemic. By recognizing the signs and symptoms of influenza and directing patients to the appropriate treatment strategies and resources, pharmacists can mitigate negative outcomes and the strain on the healthcare system. Embrace the opportunity for interdisciplinary collaboration that will be paramount in keeping our patients, colleagues, and loved ones safe.

References:

- 1) The Canadian Pharmacists Association: Pandemic Influenza: A guide for Pharmacists in Pandemic Preparedness. Accessed August 11, 2009.
http://www.pharmacists.ca/content/hcp/resource_centre/practice_resources/whatis_pandemic.cfm
- 2) The Canadian Pharmacists Association: Preparing for Influenza Pandemics. Accessed August 11, 2009.
http://www.pharmacists.ca/content/hcp/resource_centre/drug_therapeutic_info/pdf/preparing_for_influenza.pdf
- 3) http://www.pharmacists.ca/content/hcp/resource_centre/practice_resources/pandemic.cfm
- 4) Health Sciences Centre Winnipeg: What is Influenza? Accessed August 11, 2009.
<http://www.hsc.mb.ca/influenza.htm>
- 5) Health Sciences Centre Winnipeg: Influenza: Is it a Cold or the Flu? Accessed August 13, 2009.
<http://www.wrha.mb.ca/healthinfo/a-z/influenza/coldorflu.php>

About the author:

Pam Johnson is a community pharmacist practising at Drugstore Pharmacy in Winnipeg. She will be contributing articles on behalf of the Professional Relations Committee which are intended to facilitate pharmacist awareness and self promotion as fundamental contributors to public health. She would like to acknowledge the Canadian Pharmacists Association and the Winnipeg Regional Health Authority for their generosity and allowing us to utilize the resources mentioned in this article.

If you have any comments or suggestions in regards to this feature or future articles, please email Your PRC@MSP.MB.ca or Pam_Johnson21@yahoo.ca
