

# Infection Control Connection

An information newsletter for Infection Control Professionals



## Opening Remarks

There are two great educational opportunities coming up for infection control practitioners, Oct 27 with the local HUPIC group and Infection control 101 for novice practitioners hosted by the southwest group, SOPIC on Nov 18.

Preparations should be underway for the upcoming outbreak season. Some handy points are included in this edition. Influenza extended late into the season, with the last institutional outbreak of Influenza A occurring in May and the last lab confirmed community case being identified in late June. Influenza is so unpredictable.

The MOHLTC has released the new Ontario plan for Pandemic Influenza. Information on how to access your copy of the plan is included in this issue.

The province had an active WNV season. At the time of print, there were seventy human cases identified and three deaths. Two cases were identified in Grey Bruce, one acquired locally and the other believed to be travel related. Two WNV positive birds were found, but none of the mosquitoes tested were positive for the virus.

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## Pandemic: A Worldwide Outbreak of Influenza



- A global outbreak of disease that occurs when a new influenza A virus appears or “emerges” in the human population, causes serious illness, and spreads easily from person to person worldwide is called a pandemic.
- Seasonal outbreaks are caused by subtypes of influenza viruses that are already in existence among people whereas pandemic outbreaks are caused by new subtypes or subtypes that have never circulated among people.
- Past influenza pandemics have led to high levels of illness, death, social disruption, and economic loss.
- Influenza A viruses are found in many different animals, such as ducks, chickens, pigs, whales, horses, and seals.
- Certain subtypes of the influenza A virus are specific to certain species, except for birds, which are hosts to all subtypes of influenza A.
- Influenza A viruses normally seen in one species can sometimes cross over and cause illness in another species.

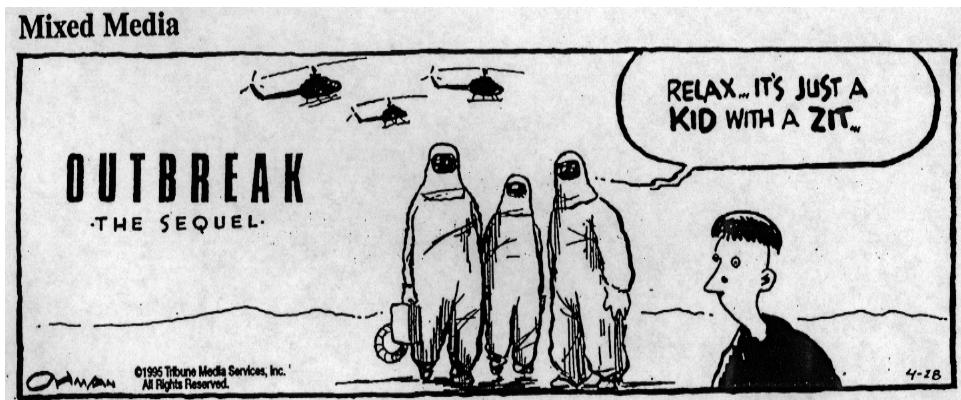
Avian influenza viruses may be transmitted to humans in two ways:

- Directly from birds, or from avian virus-contaminated environments.
- Through an intermediate host, such as a pig.

If a pig were infected with a human influenza virus and an avian influenza virus at the same time, the viruses could re-assort and produce a new virus. The resulting new virus might then be able to infect humans and spread from person to person.

This type of major change in the influenza A viruses is known as antigenic shift. Antigenic shift results when a new influenza A subtype, to which most people have little or no immune protection, infects humans. If this new virus causes illness in people and can be transmitted easily from person to person, an influenza **pandemic** could occur.

## Are you Ready for Outbreak Season?



### Do You Have.....

- the facility's copy of Ministry of Health and Long -Term Care (MOHLTC) *Guidelines for the Control of Enteric Disease Outbreaks in Health Care Facilities, June 1993?*
- the facility's copy of MOHLTC *Guidelines for the Control of Respiratory Illnesses in Health Care Facilities, October 2004?*
- MOHLTC *Infection Control and Surveillance Standards and Guidelines for Febrile Respiratory Illness (FRI), March 2004?*
- a staff policy in place concerning illness notification and exclusion?
- a supply of enteric specimen containers (where are they stored and when do they expire)?
- a supply of nasopharyngeal swabs (where are they stored and when do they expire)?
- instructions on completing the required laboratory data?
- a one month supply of personal protection equipment (PPE) (i.e. gloves, gowns, masks)?
- a sufficient supply of alcohol hand sanitizer?
- staff trained in the proper procedures to put on and take off PPE?
- staff trained in outbreak identification, surveillance and management?
- a supply of line listings?
- outbreak signs and notices ready for posting?
- precaution signs – droplet, respiratory, contact and standard precautions?
- resident serum creatinine clearances – administration of antivirals?
- medical directives?
- an internal notification procedure?
- important telephone numbers posted? – Grey Bruce Health Unit after hours on-call: 376-5420
- the facility advisor contact information posted?
- disinfection products (quatarnary ammonium, chlorine, hydrogen peroxide) available and instructions on use?



### Do Your Staff Know What To Do?



Ministry Of Health and Long-Term Care

## **Preventing Respiratory Illnesses Protecting Patients and Staff**

**Best Practices in Surveillance and Infection Prevention and Control for Febrile Respiratory Illness (FRI) for all Ontario Health Care Settings  
June 2005**

### **This document replaces:**

*Preventing Respiratory Illnesses; Protecting Patients and Staff*

Infection Control & Surveillance Standards for Febrile Respiratory Illness (FRI) in Non-Outbreak Conditions in Acute Care Hospitals, December 2003.

*Preventing Respiratory Illnesses; Protecting Patients and Staff in Non-Outbreak Conditions*

Infection Control and Surveillance Standards for Febrile Respiratory Illness (FRI) in Non-Outbreak Conditions. March 2004.

*Preventing Respiratory Illnesses in Community Settings.*

Guidelines for Infection Control and Surveillance for Febrile Respiratory Illness (FRI) in Community Settings in Non-Outbreak Conditions, March 2004.

Standards for all Ontario Health Care Facilities/Settings for High Risk Respiratory Procedures under Non-Outbreak Conditions, April 2004.



Ministry Of Health and Long Term Care

## **Ontario Health Pandemic Influenza Plan June 2005**

**Available at: [www.health.gov.on.ca/english/providers/program/infectious/pidac](http://www.health.gov.on.ca/english/providers/program/infectious/pidac)**

**Canada Communicable Disease Report**  
**Volume 31 • ACS-6**  
**15 June 2005**



**An Advisory Committee Statement (ACS)**  
**National Advisory Committee on Immunization (NACI)**  
**Statement on Influenza Vaccination**  
**for the 2005-2006 Season**

The antigenic components of the influenza vaccine have been updated for the 2005-2006 season. The present statement contains new information on human and avian influenza epidemiology. NACI has added a recommendation for influenza vaccination of individuals with any condition that can compromise respiratory function or the handling of respiratory secretions or that can increase the risk of aspiration. Changes in the section entitled "Immunization of Health Care Workers" were made to clarify the definitions of health care worker (HCW) and direct patient contact.

People who are potentially capable of transmitting influenza to those at higher risk should receive annual vaccination, regardless of whether the high-risk person(s) has been immunized. These individuals include the following:

- **Health care and other service providers** in facilities and community settings who, through their activities, are potentially capable of transmitting influenza to those at higher risk for influenza complications. This group includes emergency response workers, those who have contact with residents of continuing care facilities or residences and those who provide home care for persons in high-risk groups.

**NACI recommends that the trivalent vaccine for the 2005-2006 season in Canada contain A/New Caledonia/20/99 (H1N1)-like, an A/California/7/2004 (H3N2)-like, and a B/Shanghai/361/2002-like virus strains.**

The A/New York/55/2004 is antigenically equivalent to the A/California/7/2004 (H3N2) virus strain. B/Jiangsu/10/2003 is antigenically equivalent to Influenza B/Shanghai/361/2002 virus strain. The vaccines to be marketed in Canada for the 2005-2006 flu season contains A/New Caledonia/20/99 (H1N1), A/New York/55/2004 (H3N2) and B/Jiangsu/10/2003 virus antigens.

The entire document is available at <http://www.phac-aspc.gc.ca/naci-ccni/>

**sopic**

S O U T H W E S T E R N O N T A R I O P R O F E S S I O N A L S I N I N F E C T I O N C O N T R O L

## **Educational Day** **Infection Control 101 for Long-Term Care**

**November 18, 2005**  
**Four Points Sheraton**  
**London, Ontario**



nvtech.com

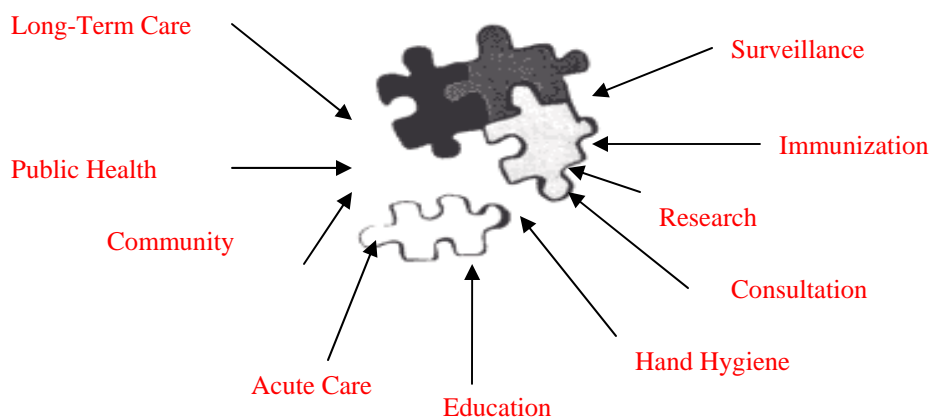
## 10 Good Things About the Flu



10. No one wants to come near you.
9. You can legally take sedatives.
8. You realize guests on daytime talk shows have worse lives than you do.
7. You get away with being rude, obnoxious and surly.
6. You can smell like a baboon's butt and nobody complains.
5. You can shlep about the house unwashed and in your housecoat all day.
4. No matter how bad you feel, it's still better than how you felt after last month's tequila 'n' gin party.
3. Star Trek re-runs.
2. Your dog is allowed on the bed.
1. You get to pass the virus on to those you really dislike.

## Infection Control Week October 17-21, 2005

**2005 Theme:  
"Infection Control Professionals: Partners in Prevention"**



## Influenza Outbreak Staff Protocols

If Influenza A has been confirmed in your facility, the following protocols must be in effect:

### **IMMUNIZED Staff:**

- May continue to work at their regular duties in the outbreak facility
- Have no restrictions on their ability to work at other facilities
- Notify other facility of status

### **UNIMMUNIZED Staff:**

- Are **EXCLUDED** from work unless they agree to take the recommended antiviral medication for prevention of the disease.
- **MAY** continue to work immediately after 1<sup>st</sup> dose of antiviral medication.
- **MAY** work in a **non-outbreak** facility if 3 days (1 incubation period) or more has passed since the last day of activities in the outbreak facility. Notify employer of this.
- **MAY** return to work 14 days **after** receiving the current influenza vaccine if antiviral is not administered and if asymptomatic.
- **MAY** return to work when the outbreak has been declared over .

### **Unwell staff:**

**Immunized staff** who are exhibiting symptoms of the current case definition are excluded from work for 5 days after the onset of symptoms or until they are symptom free .

**Unimmunized staff** who are exhibiting symptoms of the current case definition must remain off work until the outbreak has been declared over.

### **NOTE:**

Staff means all persons who carry on activities in the facility. This includes, but is not limited to, employees, students, attending physicians, and both health care and non-health care contract workers.



**SOPIC (Southwestern Ontario Professionals  
in Infection Control)  
are proud to be hosting the next  
CHICA national conference.**

**BRIDGING GLOBAL PARTNERSHIPS**

**May 6 - 10, 2006**

**London, Ontario**

Conference will be held at the Hilton

## Keep your Finger on the Pulse



### Web resources:

Public Health Agency of Canada  
<http://www.phac-aspc.gc.ca/cpip-pclpci/>



Centers for Disease Control  
<http://www.cdc.gov/flu/avian/gen-info/pandemics.htm>

Health Canada  
[www.hc-sc.gc.ca/english/diseases/flu/avian.html](http://www.hc-sc.gc.ca/english/diseases/flu/avian.html)

University of Toronto “The next influenza pandemic:  
[www.utoronto.ca/kids/influenza.html](http://www.utoronto.ca/kids/influenza.html)

National Institute of Allergy and Infectious Diseases  
 Focus on the Flu Research: Pandemic Are We Ready? Preparing for a Pandemic  
<http://www2.niaid.nih.gov>

World Health Organization  
[www.who.int](http://www.who.int)

**FluSurge- Centers for Disease Control**  
<http://www.cdc.gov/flu/flusurge.htm>

FluSurge is a spreadsheet-based model which provides hospital administrators and public health officials estimates of the surge in demand for hospital-based services during the next influenza pandemic. FluSurge estimates the number of hospitalizations and deaths of an influenza pandemic (whose length and virulence are determined by the user) and compares the number of persons hospitalized, the number of persons requiring ICU care, and the number of persons requiring ventilator support during a pandemic with existing hospital capacity.

### Secured Website

Institutional Outbreaks in Grey Bruce will continue to be posted on our secured website, which is not available to the public.

Please keep the number of persons with access to this website limited to those who require the information to make patient/resident transfers, admissions and staffing decisions.

[www.publichealthgreybruce.on.ca/gbdoctors](http://www.publichealthgreybruce.on.ca/gbdoctors)

Login: doctor Password: phdoc

Go to: outbreaks



## Pandemic!

Experts agree that future pandemics of influenza are likely, if not inevitable. Pre-pandemic planning is essential if influenza pandemic-related morbidity, mortality, and social disruption are to be minimized. The sudden and unpredictable emergence of pandemic influenza and its potential to cause severe health and social consequences necessitate developing a response plan for each health care facility and implementing preparedness activities.

MOHLTC “Plan for an Influenza Pandemic”

June 2005

## What could happen in Grey Bruce?



### POPULATION

	0-18	19-64	65+	Total
Non-high risk	34,202	82,801	17,234	134,237
<b>High risk</b>	<b>2,338</b>	<b>13,929</b>	<b>11,489</b>	<b>27,756</b>
Totals	36,540	96,730	28,723	<b>161,993</b>

When planning for an outbreak of this magnitude consider that 1/3 of the population will become ill with the greatest threat of morbidity and mortality in the High Risk group (based on medical conditions and/or age).

Using the best (15%) and worse (35%) case scenarios the following charts provide a look at the estimated impact of pandemic influenza in our area.

### Number of Deaths

0-18 years 1 - 8  
 19-64 years 30 - 133  
 65+ years 47 - 110

Most Likely Number - **78-182** deaths resulting from a pandemic strain of influenza.

### Hospitalizations

0-18 years 10 - 24  
 19-64 years 179 - 417  
 65+ years 126 - 293

Most likely number- **315-734** persons will be ill enough to require hospitalization. This number does not include persons already hospitalized with serious conditions or other disease emergencies. (non-elective surgery, heart attack, stroke).

### Outpatient/Emergency care visits

0-18 years 2,724 - 6,357  
 19 -64 years 6,242 - 14,565  
 65+ years

The most likely number - **10,585 - 24,700** persons will be ill enough to seek medical attention at an emergency department or triage/assessment clinic.

## BOX 1. Recommended practices for preventing patient-to-patient transmission of hepatitis viruses from diabetes-care procedures in long-term-care settings

### Diabetes-care procedures and techniques

- Prepare medications such as insulin in a centralized medication area; multidose insulin vials should be assigned to individual patients and labeled appropriately.
- Never reuse needles, syringes, or lancets.
- Restrict use of fingerstick capillary blood sampling devices to individual patients.
- Consider using single-use lancets that permanently retract upon puncture.
- Dispose of used fingerstick devices and lancets at the point of use in approved sharps containers.
- Assign separate glucometers to individual patients. If a glucometer used for one patient must be reused for another patient, the device must be cleaned and disinfected. Glucometers and other environmental surfaces should be cleaned regularly and whenever contamination with blood or body fluids occurs or is suspected.
- Store individual patient supplies and equipment, such as fingerstick devices and glucometers, within patient rooms when possible.
- Keep trays or carts used to deliver medications or supplies to individual patients outside patient rooms. Do not carry supplies and medications in pockets.
- Because of possible inadvertent contamination, unused supplies and medications taken to a patient's bedside during fingerstick monitoring or insulin administration should not be used for another patient.

### Hand hygiene and gloves

- Wear gloves during fingerstick blood glucose monitoring, administration of insulin, and any other procedure involving potential exposure to blood or body fluids.
- Change gloves between patient contacts and after every procedure that involves potential exposure to blood or body fluids, including fingerstick blood sampling. Discard gloves in appropriate receptacles.
- Perform hand hygiene (i.e., hand washing with soap and water or use of an alcohol-based hand rub) immediately after removal of gloves and before touching other medical supplies intended for use on other patients.

## The ABC'S Of Hepatitis

**A** Hepatitis A is a liver disease caused by the hepatitis A virus. Hepatitis A can affect anyone. In Canada, hepatitis A can occur in situations ranging from isolated cases of disease to widespread epidemics. Many cases of hepatitis A occur in travellers to tropical locations. Contaminated food/water is the most common route for exposure. Good personal hygiene and proper sanitation can help prevent hepatitis A. Vaccines are also available for long-term prevention of hepatitis A infection in persons 2 years of age and older. Immune globulin is available for short-term prevention of hepatitis A infection in individuals of all ages.

**B** Hepatitis B is a serious disease caused by a virus that attacks the liver. The virus, which is called hepatitis B virus (HBV), can cause lifelong infection, cirrhosis (scarring) of the liver, liver cancer, liver failure, and death and is transmitted through blood, blood products, and other body substances. Hepatitis B vaccine is available for all age groups to prevent hepatitis B infection.

**C** Hepatitis C is a disease of the liver caused by the hepatitis C virus (HCV). You may be at risk for hepatitis C and should contact your medical care provider for a blood test if :

- You were notified that you received blood from a donor who later tested positive for hepatitis C.
- You have ever injected illegal drugs, even if you only experimented a few times many years ago.
- You received a blood transfusion or solid organ transplant before July 1992.
- You were a recipient of clotting factor(s) made before 1987.
- You have ever been on long-term kidney dialysis have evidence of liver disease (e.g. persistently abnormal ALT levels).

**D** Hepatitis D is a liver disease caused by the hepatitis D virus (HDV), which is a defective virus that needs the hepatitis B virus to exist. Hepatitis D virus (HDV) is found in the blood of persons infected with the virus.

**E** Hepatitis E is a liver disease caused by the hepatitis E virus (HEV) and is transmitted in much the same way as hepatitis A virus. Hepatitis E does not occur often in Canada.

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*Infection Control Connection* is published twice yearly by the Infectious Disease Team of the Grey Bruce Health Unit. We encourage you to contribute articles or submit questions that we can share with your colleagues. Contact us at:  
Grey Bruce Health Unit  
920 1<sup>st</sup> Avenue West, Owen Sound, On N4K 4K5  
519-376-9420 or 1-800-263-3456 Fax: 519-376-0980  
[www.publichealthgreybruce.on.ca](http://www.publichealthgreybruce.on.ca)