



FALL NEWSLETTER

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IEI MISSION STATEMENT:

The **Immunization Education Initiative** (IEI) is a national group of nurses partnering with other immunization supporters, who educate about the importance of immunization to enhance the health of Canadians.



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PAGE 2 Preventing and controlling infection in the health care setting

PAGE 3 Focus on RSV

UPDATE ON H1N1 INFLUENZA

On August 10, 2010, the World Health Organization (WHO) declared the H1N1 influenza pandemic to be over. This is based on evidence that no large and unusual outbreaks have occurred in either northern or southern hemispheres in the last several months; the virus has spread to all countries; many people in all age groups in many countries have now developed some immunity to this new virus; and many countries are reporting the presence of seasonal influenza A and B viruses.

H1N1 activity has returned to levels normally seen for seasonal influenza in most countries. Although the pandemic is over, the H1N1 virus is expected to remain and circulate as a seasonal influenza virus for many more years. Cases and local outbreaks of H1N1 infection will continue to occur and in some locations, these outbreaks can have a large impact on the local community. People who were at risk for complications from H1N1 last year (e.g., young children, pregnant women, people with underlying medical conditions such as asthma and diabetes) will likely continue to be at risk of severe H1N1 infection this year. Consult the Public Health Agency of Canada's "Statement on seasonal trivalent inactivated influenza vaccine (TIV) for 2010-2011" for more information on at-risk groups.

Since everyone is still at risk of becoming infected with the H1N1 virus and seasonal influenza virus, steps should be taken to reduce the risk of infection. The H1N1 virus strain has been incorporated into the seasonal influenza vaccine, meaning this year's influenza vaccine includes protection against H1N1. The influenza vaccine is recommended as a way to reduce death and complications caused by the influenza virus. In addition, everyone should continue to follow ways to prevent spreading the influenza, such as practising good hand hygiene, covering your mouth with your arm or a tissue when you cough or sneeze, and staying home when you do get sick.

During the post-pandemic period, the WHO stresses that it is important to continue maintaining surveillance. Health authorities, including Health Canada, are now evaluating the interventions they implemented (e.g., their response to the H1N1 pandemic) and updating their pandemic preparedness and response plans according to how this pandemic turned out. The WHO also recommends that health authorities continue efforts that prevent and control the impact of influenza, such as vaccination against the influenza.



FALL NEWSLETTER

PREVENTING AND CONTROLLING INFECTION IN THE HEALTH CARE SETTING

Infection control is an issue that everyone working in the health care setting must consider. With the emergence of new antibiotic-resistant bacteria strains and the rise of hospital-acquired infections, all health care providers must ensure they follow routine infection control procedures in their everyday practice. About 30% of infections acquired in the health care setting can be prevented by following infection prevention and control procedures. The following is an overview of infection prevention and control in immunization procedures.

Hand hygiene: Hand hygiene is the single most important thing you can do to reduce contamination and spread of infection. Hand hygiene is removing or killing microorganisms on the hands and maintaining good skin integrity. There are 2 methods: washing with soap and running water, or using an alcohol-based hand sanitizer.

- ▶ Hand hygiene needs to be done:
 - ▷ before preparing the vaccine
 - ▷ between patients receiving vaccines
 - ▷ after removing personal protective equipment (e.g., gloves, masks, gowns)
 - ▷ whenever the hands are soiled
 - ▷ after contact with blood, body fluids, and secretions, and before moving to another activity
 - ▷ after personal body functions (e.g., blowing your nose)
- ▶ Using alcohol-based hand sanitizers is the preferred method for decontaminating hands. If the hands are visibly soiled, soap and water is the better option.
- ▶ If the skin on your hands is broken or cut, wear gloves while immunizing a patient. Otherwise, it is the practitioner's choice on whether to wear gloves.
- ▶ Apply hand lotion regularly to maintain intact skin.

Hand hygiene using soap and running water (estimated time for process is 40 to 60 seconds):

1. Remove all jewellery from hands and arms.
2. Wet hands with warm water.
3. Apply the alcohol-based hand sanitizer on the palm of one hand. One to two pumps of the product or a loonie-sized quantity should be adequate.

4. Rub hands vigorously on all surfaces for at least 15 seconds. Don't forget these commonly missed areas: finger tips, between fingers, backs of hands, and base of thumbs.
5. Rinse hands thoroughly under running warm water.
6. Dry hands by blotting gently with a single-use paper towel. Use the paper towel to turn off the faucet to avoid recontamination of your hands. If air dryers are used to dry hands, hands-free taps are required.

Hand hygiene using alcohol-based hand sanitizer (estimated time for process is 20 to 30 seconds):

1. Remove all jewellery from hands and arms.
2. Ensure hands are not visibly soiled (if so, you should wash hands with soap and water).
3. Apply the alcohol-based hand sanitizer on the palm of one hand. One to two pumps of the product or a loonie-sized quantity should be adequate.
4. Rub hands together and spread the product over all surfaces of hands. Don't forget these commonly missed areas: finger tips, between fingers, backs of hands, and base of thumbs.
5. Rub hands until product is dry.

Handling vaccine vials: Contaminated medication vials can transmit infections such as hepatitis B, hepatitis C, HIV, and staphylococcus aureus. Prevent infection by following proper aseptic practices:

- ▶ Wipe the uncapped vaccine vial with a suitable disinfectant (e.g., 70% isopropyl alcohol). Allow to air dry before inserting needle.
- ▶ Do not use single use vials more than once. Discard the vial after one use and do not administer vaccine from the single-use vial to multiple patients.
- ▶ Store medication vials according to manufacturer's instructions (e.g., refrigerator, at room temperature, freezer).

Safe handling of needles and syringes: Use a sterile, single-use, disposable needle and syringe every time you need to withdraw vaccine from a vial. In addition, needles should not be recapped after use; used syringes and needles should be immediately disposed of in a sharps container.

Cleansing patient skin: Before injecting the vaccine, clean the patient's skin with a suitable antiseptic. Allow to dry before injection.

Always follow your clinic's or the hospital's policy on routine practices for preventing and controlling infection.

VACCINE TRUTHS

- ▶ Vaccine production sometimes requires using animal cells; however, this process is strictly controlled so that humans are not at risk. Vaccines are purified and all animal cells are removed.
- ▶ Some vaccines contain formaldehyde. Formaldehyde occurs naturally in the human body and helps with metabolism. Formaldehyde may be used in the manufacturing process to inactivate some viruses and toxins. However, purification removes almost all formaldehyde before the vaccine is used in humans. There's approximately 10 times the amount of formaldehyde in a baby's body at any time than there is in a vaccine.
- ▶ Some vaccines contain egg protein (e.g., influenza vaccine), so you may not be able to receive the vaccine if you are allergic to eggs.

IMMUNIZATION – DID YOU KNOW?

- ▶ Health care workers are recommended to get immunized with the annual influenza shot; measles, mumps, and rubella (MMR); tetanus diphtheria and polio (TDP); hepatitis B; pertussis; and varicella (chickenpox).
- ▶ A hundred years ago, the leading cause of death worldwide was infectious disease. Today, because of effective immunization programs, infectious diseases cause less than 5% of all deaths in Canada.
- ▶ Routine childhood vaccinations are usually free of charge in Canada. In adults, certain groups of people at higher risk for certain diseases can receive vaccines free of charge.



FOCUS ON RSV

What is RSV?

Respiratory syncytial virus (RSV) is a respiratory virus that can affect anyone of any age. RSV is the most common cause of lower respiratory tract infection in young children. In fact, an analysis conducted by the Children's Hospital Boston shows that RSV can have a far greater impact on young children than the seasonal influenza. Their analysis estimated that 21.5 emergency department visits per 1,000 children were linked to RSV, compared to 10.2 visits per 1,000 children for seasonal influenza.

Like the seasonal influenza, Canada has an RSV season that usually begins between November and January, and ends by the end of April. Epidemics usually occur annually between December and March. RSV is spread through droplets containing the virus from the sneeze or cough of an infected person. If someone inhales these droplets or the droplets come into contact with their mouth, nose, or eye, they can become infected. RSV can also spread via direct contact (e.g., kissing someone) or via indirect contact (e.g., touching surfaces such as doorknobs, tables, and toys that contain the virus and then rubbing the eyes or nose).



FOCUS ON RSV (CONT'D)

What are the symptoms of RSV?

The symptoms of RSV in most individuals are similar to those of the common cold, including stuffy or runny nose, cough, low-grade fever, sore throat, and sometimes ear infections. RSV symptoms may last 1 to 2 weeks and the infection usually goes away on its own without any specific treatment or hospitalization. However, some people, especially infants and young children, may experience more serious infection. RSV also causes pneumonia and bronchiolitis (an acute lower respiratory tract infection with symptoms of cough, fast or shallow breathing, and wheezing). Every year in Canada, 12,000 hospitalizations for bronchiolitis in children younger than 2 years old are due to RSV.

Who is at risk for RSV?

RSV can occur in anyone, but the people most at risk for severe infection are premature infants in the first 6 months of life, previously healthy infants younger than 6 weeks old, children less than 2 years old with congenital heart or chronic lung disease, immunocompromised children, immunocompromised adults, and adults 65 years and older.

How is RSV treated and prevented?

Treatment for RSV infection is usually home care, without any special form of intervention. Rest, drinking plenty of clear fluids, and symptomatic treatment are recommended.

A monoclonal antibody called palivizumab is available and is indicated to prevent severe RSV illness in infants at high risk of RSV disease, including infants with bronchopulmonary dysplasia, infants born prematurely, and children with congenital heart disease. The injection provides passive immunity. It cannot cure or treat existing RSV infection, and it can't prevent infection with RSV (i.e., someone may still get RSV infection after receiving the treatment; the treatment helps to prevent severe infection). The injection is given once a month during the RSV season.



IEI NEWS

The Daphne Cockwell School of Nursing at Ryerson University endorses the educational materials and activities of the Immunization Education Initiative ("IEI") and their role in the furtherance of nursing education in Canada.



INTERESTED IN BECOMING A NURSE SPEAKER?

Contact the IEI for more information!

Don't forget to visit the IEI website at www.immunizationeducation.ca!

To stay informed on immunization news, bookmark or make www.immunizationeducation.ca your home page.

IEI Nurse Speakers are available to provide education sessions for your group or organization of health care professionals.

There are several presentations to choose from: *Administration Techniques, Communication Strategies, Immunology/Vaccinology, Immunization Overview, and Influenza.*

Each session takes about 1½ hours and light refreshments are provided.

Best of all, there is no cost to your group!

For further information or to book a presentation, please visit our website at www.immunizationeducation.ca.