Reproductive Care Program of Nova Scotia
RCP
NEWSLETTER
Summer/ Autumn 2006

Flu Vaccination:

Safe for Pregnancy and Breastfeeding.

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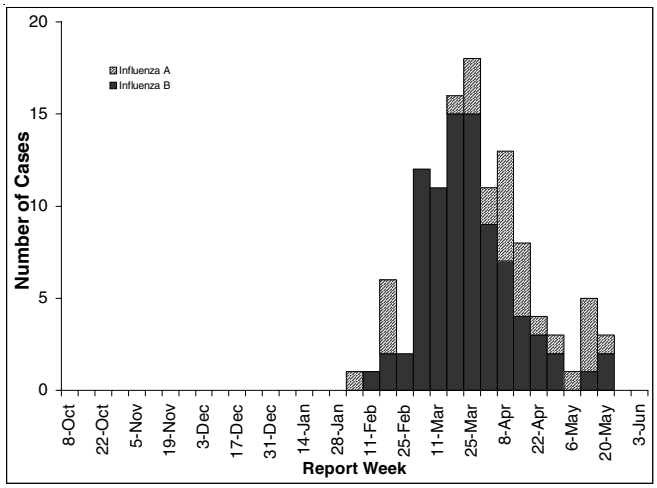
Introduction

Influenza ("the flu") is an acute viral illness from Influenza A or B virus. There are two important initiatives currently underway in Canada to address influenza: surveillance and vaccination. The national surveillance system, ***FluWatch*** provides ongoing information about influenza in Canada. In addition, the National Advisory Committee on Immunization (NACI) provides updated recommendations annually that outline who should receive the influenza vaccine (see insert). In addition to those described in Table 1 (insert), the vaccine is safe to give to pregnant women in all three trimesters and to women who are breastfeeding.[1] This article provides a short synopsis of current trends in influenza illness in Canada and Nova Scotia together with information about national recommendations for immunization for the upcoming flu season.

Prevalence

The timing of the flu season varies and is dependent on timing and number of occurrences of the illness. It usually occurs between December/January and May/June of each year. In 2005-2006, a total of 115 laboratory-confirmed cases of influenza were reported in Nova Scotia. Of these, 29 (25.2%) were influenza A and 86 (74.8%) were influenza B. Influenza rates vary by District Health Authority. Of the 115 total influenza cases reported in 2005-2006, 64 (55.7%) were females and 51 (44.3%) were males. Unlike previous influenza seasons where the majority of cases had been reported in seniors 65 years of age or older; in 2005-06, the majority (63.2%) of influenza cases were reported among persons under 25 years of age.[2]

Figure 1: Number of Lab-confirmed influenza cases in Nova Scotia by report week 2005/06



Influenza Viruses

Influenza A viruses are classified into subtypes: hemagglutinin (H) and neuraminidase (N). These are further subdivided into three subtypes of hemagglutinin (H1, H2, and H3) and two subtypes of neuraminidase (N1 and N2) influenza A viruses. Immunity to these antigens through widespread immunization programs reduces the likelihood of infection and lessens the severity of disease if infection occurs. Annual vaccination is important and necessary because **infection with a virus of one subtype provides little or no protection against viruses of other subtypes.** As well, there may be variation within one strain (antigenic drift) and thus infection or vaccination with one strain may not induce immunity to distantly related strains of the same subtype. Although influenza B viruses have shown more antigenic stability than influenza A viruses, antigenic variation does occur. For these reasons, major epidemics of respiratory disease caused by new variants of influenza continue to occur. Ongoing surveillance of antiviral resistance patterns of circulating influenza strains is an important activity for informing appropriate use of antiviral medications to reduce the impact of influenza.[1]

Surveillance

The Public Health Agency of Canada (PHAC) has a national surveillance program, ***FluWatch,*** which provides information about occurrences of influenza on a weekly basis during the flu season (October to April) and on a biweekly basis between May to September. ***FluWatch*** reports include data and information from four main sources: laboratory reports of positive influenza tests in Canada; physician reporting of influenza-like illness (ILI); provincial/territorial assessment of influenza activity based on various indicators; and WHO and other international reports of influenza activity. In 2005-2006, there were 5696 positive cases of influenza in Canada. [1] For additional information please see the website at: http:// www.phac-aspc.gc.ca/fluwatch.

Immunization

Immunization is the most effective way to reduce the morbidity and mortality associated with influenza. Each year the Department of Health Promotion and Protection provides flu vaccines to Public Health Services in each of the District Health Authorities. The vaccine is then distributed to care providers offering the vaccine to Nova Scotians. The flu clinic schedule will be posted on the Department of Health Promotion and Protection's website www.gov.ns.ca/health/opmoh/flu.htm

Who should be immunized?

The National Advisory Committee on Immunization (NACI) recommends that three groups be targeted for immunization. They are:

1. Persons at high-risk for complications
2. Persons capable of transmitting influenza to those at high risk of complications
3. Persons performing essential community services

See insert with Tables 1 and 2 for further details on who should receive vaccination and recommended influenza vaccine dosage, by age, for the 2006-2007 season.[1]

Influenza vaccine in Pregnancy and during Lactation

Influenza vaccination is recommended for pregnant and breastfeeding women who have any of the conditions listed in Table 1 (insert). Immunization of pregnant women has the advantage of potentially protecting the fetus as it crosses through the placenta and is excreted in breast milk. Among healthy pregnant women, morbidity and mortality associated with influenza is increased during pandemics. (cont'd p.3)

Immunization of all pregnant women is recommended in the United States [3,4,5]. Although universal vaccination of all pregnant women is not explicitly recommended in Canada, the Canadian National Advisory Committee on Immunization (NACI) recommends the following pregnant women be offered an influenza vaccination: all high-risk pregnant women, pregnant women who have chronic illnesses, or are health care workers or pregnant women who will deliver during the flu season and thus, be a household contact for the newborn. For detailed information about who should be vaccinated please see Table 1. The NACI recommends that all persons not included in the recipients group in Table 1, be encouraged to get the vaccine.[1] A recent population-based study in Nova Scotia for the period 1990-2002 showed that there was a relative risk for hospitalization due to respiratory illness of 8.5 (95% confidence interval [CI]: 5.1-13.9) for pregnant women with comorbidities. Healthy third trimester women had 20 admissions for which a respiratory-related condition was the most responsible diagnosis, representing an admission rate of 1.94/10,000 women-months (adjusted relative risk = 2.4, CI: 1.2-4.9) compared with these women in a non-influenza season. Healthy third trimester women had an overall respiratory-related admission rate of 7.36/10,000 women-months during influenza season, compared with 3.06/10,000 in a non-influenza season. Immunization rates, even of women with co-morbidities, were low.[1]

There are no randomized controlled trials to assess the efficacy of influenza vaccine in pregnancy. **Healthy women who will be pregnant during influenza season and who wish to avoid morbidity associated with influenza illness should be encouraged to be vaccinated during any trimester of pregnancy. Pregnant women should be immunized in their third trimester if they are expected to deliver during influenza season, as they will become household contacts for their newborn.[1] However, currently in Nova Scotia healthy pregnant women are not eligible to receive publicly funded flu vaccine.**

Efficacy of the Vaccine

Typically vaccinations for influenza occur pre-flu season (October-November) but depending on availability of the vaccine (**see alert in box p.5**), it can be offered at any time during the flu season. The effectiveness of influenza vaccine varies, depending upon the age and immunocompetence of the vaccine recipient, the incidence of infection, and the "match" between the vaccine viral strain and the circulating viral strain during influenza season. With a good match, influenza vaccination has been shown to prevent influenza illness in approximately 70% to 90% of healthy children and adults, whereas a vaccine efficacy of 30% to 60% has been demonstrated when there are significant antigenic differences between circulating and vaccine viral strains.[1]

Adverse Reactions, Contraindications and Precautions

Influenza vaccine should not be given to people who have had an anaphylactic reaction to a previous dose. Persons with known IgE-mediated hypersensitivity to eggs or chicken (symptoms include: hives, swelling of the mouth and throat, difficulty in breathing, hypotension or shock) should not be routinely vaccinated with influenza vaccine. [1]

Simultaneous Administration of Other Vaccines

Influenza vaccine may be given at the same time as other vaccines. Although the same limb may be used, a different site on the limb should be chosen and a different syringe and needle should be used.

As the target groups for influenza and pneumococcal polysaccharide vaccines overlap considerably, health care providers should take the opportunity to vaccinate eligible persons against pneumococcal disease when influenza vaccine is given.[1]

What is Avian Influenza (Bird Flu)?

Avian influenza (AI) is caused by the influenza virus Type "A", which can affect several species of food producing birds (chickens, turkeys, quails, guinea fowl, etc.), as well as pet birds and wild birds.

Avian influenza (AI) viruses may, on rare occasions, cause disease in humans. Transmission to humans has occurred by people having close contact with infected birds or heavily contaminated environments.

Due to the potential for human infection, it is recommended that those people working with or in contact with poultry suspected of being infected with AI wear protective clothing, including facemasks, goggles, gloves and boots.[6] It is also recommended that those persons working with or in contact with poultry, receive the influenza vaccine each year.

For more information, please see the following website: http://www.inspection.gc.ca/english/anima/heasan/disemala/avflu/avflufse.shtml

Summary

Immunization is the most effective way to reduce the morbidity and mortality associated with influenza. There are recommended groups of people who should be encouraged to receive the vaccine. These include those who are persons at high-risk for complications, persons capable of transmitting influenza to those at high risk of complications and persons performing essential community services. Influenza vaccine is safe for pregnant women at all stages of pregnancy and for breastfeeding mothers.

References

1. National Advisory Committee on Immunization (2006). *Statement on Influenza Vaccination for the 2006-2007 Season.* Canadian Communicable Disease Report, 32, ACS-7. Retrieved August 20, 2006 from http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/06pdf/acs-32-07.pdf

2. Office of the Chief Medical Officer, Nova Scotia Department of Health (August 2005). *Influenza Surveillance and Immunization Annual Report 2005-2006.* Retrieved September 20, 2006 from http://www.gov.ns.ca/health/downloads/AnnualReportInfluenza2005_2006.pdf

3. Hartert TV, Neuzil KM, Shintani AK et al. (2003). *Maternal morbidity and perinatal outcomes among pregnant women with respiratory hospitalizations during influenza season.* American Journal of Obstetrics and Gynecology, 189(6):1705-12.

4. Lindsay L, Jackson LA, Savitz DA et al. (2006). *Community influenza activity and risk of acute influenza-like illness episodes among healthy unvaccinated pregnant and postpartum women.* American Journal of Epidemiology.

5. Black SB, Shinefield HR, France EK et al. (2004). *Effectiveness of influenza vaccine during pregnancy in preventing hospitalizations and outpatient visits for respiratory illness in pregnant women and their infants.* American Journal of Perinatalogy, 21(6):333-9.

6. Canadian Food Inspection Agency (2006). *Avian Influenza.* Retrieved August 20, 2006 from http://www.inspection.gc.ca/english/anima/heasan/disemala/avflu/avflufse.shtml



ALERT

The availability of the flu vaccine for the 2006-2007 season will be delayed by about one month due to difficulty in growing one of the recommended strains. The vaccine should be available late October to early November. For further details please see the PHAC website at:
http://www.phac-aspc.gc.ca/media/nr-rp/2006/20060823-vac0607_e.html

WHAT'S NEW?

The following studies using data from the Nova Scotia Atlee Perinatal Database have been published recently:

Allen, V., O'Connell, C., & Baskett, T. (2006). Maternal morbidity associated with cesarean delivery without labor compared with inducation of labor at term. *Obstetrics & Gynecology, 108*(2), 286-294.

Allen, V., O'connell, C., & Baskett, T. (2006). Cumulative economic implications of initial method of delivery. *Obstetrics & Gynecology, 108* (3), Part 1, 549-555.

Dodds, L., Fell, D., Joseph, K.S., Allen, V., & Butler, B. (2006). Outcomes of pregnancies complicated by hyperemesis gravidarum. *Obstetrics & Gynecology, 107* (2), Part 1, 285-291.

Fell, D., Dodds, L., Joseph, K. S. Allen, V., & Butler, B. (2006). Risk factors for hyperemesis gravidarum requiring hospital admission during pregnancy. *Obstetrics & Gynecology, 107* (2), Part 1, 277-283

Baskett, T., Allen, V., O'Connell, C., & Allen, A. (2006). Predictors of respiratory depression at birth in the term infant. *BJOG, 113*, 769-774.

Yang, J., Cummings, E., O'Connell, C., Jangaard, K. (2006). Fetal and Neonatal Outcomes of Diabetic Pregnancies. *Obstetrics & Gynecology, 108* (3), Part 1, 644-650

Conferences

The next **Advanced Life Support in Obstetrics (ALSO)** course will be held November 18th & 19th, 2006 at the IWK Health Centre, Halifax, NS. Please check the website for more information. http://rcp.nshealth.ca

Please note: The next ALSO course coordinated by RCP will be in the fall 2007.

The **AWHONN** (Association of Women's Health Obstetric, Neonatal Nurses) **Canada 17th National Conference** will be held October 17th-21st, 2006 in Calgary, Alberta. For further information please see the website at:
http://www.awhonn.org/cms/groups/chapters/1151/AWHONN_Program_final.pdf
The **18th National AWHONN Canada Conference** will be October 18th-20th, 2007at the Westin Hotel, Halifax, NS.

There will also be an **AWHONN** workshop April 19th & 20th, 2007 entitled ***Promoting Maternal Mental Health During Pregnancy*** facilitated by Barbara Pfaff at Spring On University conference facilities, Halifax, NS. Please contact Barbara Whynot at barbara.whynot@iwk.nshealth.ca for registration information. (more conferences p.8)

Coding Connection

Irene Gagnon
Health Information Co-ordinator

Induction versus Augmentation

We all hope everyone had a wonderful summer and got a bit of rest and relaxation. It is hard to believe the fall is already upon us.

An area of obstetrical coding that always generates a great deal of discussion and questions is differentiating between induction and augmentation. Sometimes the documentation in these cases is not clear, perhaps reflecting some variability in the clinical situation. Both the RCP/Atlee coding system and the ICD-10-CA/CCI system address these inconsistencies through coding guidelines, as much as possible. The two systems differ in a few ways, however, which can be a potential source for confusion.

All coding related to labour induction and augmentation requires consideration of whether labour was established. For RCP, labour is either spontaneous (S), artificially induced (I), or there is no labour (N) prior to delivery. Labour that is not well established may need to be augmented, usually with oxytocin. However, if labour is induced but additional agents are needed or the dose of induction agents is increased, this should still be considered part of the induction procedure. This differs from the CIHI coding practice. A recent coding query noted:

"*The onset of labour is either spontaneous (begins on its own) or induced (artifically initiated), either of which may then require augmentation (stimulation of labour contractions). If labour has been induced and is later augmented you may select code for both induction and augmentation.*"

In this scenario CIHI is indicating that an induced labour can be augmented. **For RCP, induced labour cannot be augmented, only spontaneous labour can be augmented.**

The most difficult cases to accurately capture are those where the documentation indicates that a woman was induced after labour was established, had her labour augmented before labour was established, or was both induced and augmented. There are times when it is difficult to determine whether labour was truly established. If there is confusion, it is best to query the physician about the clinical scenario. If this is not possible, coders should use the guidelines on Page 45 of the coding manual to assist in making the correct decision for coding. The guideline indicates:

*If the cervical dilatation is >3 cm **and** regular contractions are present when the oxytocin is initiated, code labour as augmented **(S)**.*

*If the cervical dilatation is <3 cm **or** there are no regular contractions when the oxytocin or prostaglandin is initiated, code labour as induced **(I)**.*

There are a number of ways that labour can be induced. RCP captures all agents or methods, whether they are administered on an inpatient or an outpatient basis. For example, if a woman receives prostin in a clinic or physician's office before admission, then receives oxytocin after admission, we ask that both methods be coded as induction on the abstract. Further, the induction of labour place should indicate both inpatient and outpatient. Remember that other non-pharmacologic induction methods may be used as well, such as artificial rupture of membranes. These should be coded as induction or augmentation relative to the onset of labour.

For more information or for queries about coding for RCP please contact Irene Gagnon (902) 470-6494 or irene.gagnon@iwk.nshealth.ca

MOM: ManagingOur Mood

Postpartum depression (PPD) is an important problem for rural mothers as well as for mothers in urban areas. Depression is frequent, can be severe and affects not only the women who suffer from it but their families and friends as well. Treatment is often not readily available, particularly in rural areas, and without treatment, depression will likely persist or reoccur. Rural women face specific challenges in overcoming depression associated with the fact that they are often isolated due to geographic, work place and family factors.

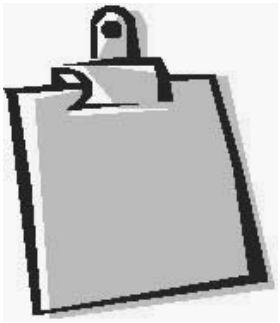
The Centre for Research in Family Health, led by Dr. Patrick McGrath, has developed MOM: Managing Our Mood, a research treatment program for women suffering from PPD that is administered entirely from a distance. MOM is a 12-week program that uses cognitive behavioural therapy, which combines both changing thoughts and behaviours to overcome depression. The women receive treatment in the comfort and privacy of their own homes, via weekly phone sessions with their coaches, with the aid of a narrated DVD and use of a printed manual.

A pilot study consisting of 25 participants was undertaken and the results thus far are very encouraging. For the 17 participants that completed the program, Beck Depression Inventory II scores decreased significantly from 25.88 at baseline to 8.41 at the end of treatment assessment, and similar results were seen with the Edinburgh Postnatal Depression Scale. Only 3 participants were lost to follow-up, and women reported high satisfaction with the program delivery and telephone coach support.

The next phase of the MOM research program is the Randomized Controlled Trial (RCT), which is now underway. The RCT compares the effectiveness of the MOM distance therapy with a "Best Efforts" group, where women are provided with up-to-date information on PPD treatment options and are encouraged to seek help on their own. Our goals for the upcoming months are to bring this research program to all districts in Nova Scotia in the hopes of enrolling 100 women in our study. MOM is currently approved in the Capital, Pictou and Cumberland Health Districts.

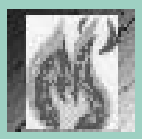
For more information, please contact **Megan Whitehead**, Coordinator megan.whitehead@iwk.nshealth.ca or leave a message on the toll-free line, 1-866-470-7111, option 3 or call 470-7241 local.

NEW PRENATAL RECORD UPDATE



The final draft of the NS prenatal record is in the final stages of completion. You should expect to see it for use early in the new year. The three month pilot along with the mail out to physicians with the spring newsletter proved to be a very successful feedback loop and test run. The abundance of feedback on the initial draft is reflected in the new record. RCP would like to thank those who braved the test pilot and took the time and effort to provide thoughtful feedback.

If you have questions or comments please contact: Ronda Smith (902) 470-7154
ronda.smith@iwk.nshealth.ca



HOT TOPIC

RCP is currently coordinating a province-wide initiative for fetal fibronectin testing for suspected preterm labour in the facilities offering delivery services in Nova Scotia. Please see the letter included with the newsletter for more information. If you have questions please contact the main RCP office at (902) 470 – 6798.

Celebrate the 20th Anniversary of the **Canadian Lactaction Consultants Association** (CLCA) The CLCA together with the **Ligue La Leche** will present a Breastfeeding symposium in Montreal, November 8th to 10th, 2006. For more information please contact Ligue La Leche at (514)-990-8917.

Gratitude is the heart's memory.
... French Proverb

HAPPY THANKSGIVING!

UPDATE--Management of Post Partum Hemmorrhage (PPH)

There is a replacement drug for ergometrine called ergotrate (.2mg/ml vials) from a company called Pharmacist Pharmaceuticals. Please contact your facility's pharmacy for additional information.

FOND FAREWELL

A fond farewell to Kerrie Jones, Office Clerk at RCP who left with her family for the wild west in Edmonton, Alberta in July. Thank you and best of luck!

RCP Personnel

Rebecca (Becky) Attenborough, Coordinator
Barry Campbell, Programmer
Kevin Canavan,Data Base Administrator
John Fahey, Research Analyst
Irene Gagnon,Health Information Coordinator
Dr. Krista Jangaard,Neonatal CoDirector
Dr. Edwin(Ted) Luthe,DataBase Consultant
Marilyn Muise, Program Manager
Annette Ryan,Perinatal Nurse Consultant
Ronda Smith,Perinatal Nurse Consultant
Dr. Heather Scott,Obstetrical CoDirector
Kristina Whiffen,Programmer
Jennifer Whyte, Applications Coordinator

RCP Education Sessions

If you have clinical topics of interest and you would like more information please contact Ronda Smith at (902) 470-7154 or Annette Ryan at (902) 470-6619 to set up education sessions in your area.

To submit articles or photos for the next newsletter please contact Annette Ryan at (902) 470-6619 or annette.ryan@iwk.nshealth.ca by November 30, 2005

Table 1: Recommended recipients of influenza vaccine[1]

N.B. In Nova Scotia, not all these risk groups are eligible to receive publicly funded influenza vaccine. Please see materials sent to all vaccine providers by Public Health or information at www.gov.ns.ca/health/opmoh/flu.htm for details on eligible groups.

People at high risk of influenza-related complications	• Adults and children with selected chronic health conditions if significant enough to require regular medical follow-up or hospital care. These high-risk conditions include the following:
	  ○ cardiac or pulmonary disorders (including bronchopulmonary dysplasia, cystic fibrosis, and asthma)
	  ○ diabetes mellitus and other metabolic diseases
	  ○ cancer, immunodeficiency, immunosuppression (due to underlying disease and/or therapy)
	  ○ renal disease
	  ○ anemia or hemoglobinopathy
	  ○ conditions that compromises the management of respiratory secretions and are associated with an increased risk of aspiration
	  ○ children and adolescents with conditions treated for long periods with acetylsalicylic acid
	• People of any age who are residents of nursing homes and other chronic care facilities.
	• People ≥ 65 years of age
	• Healthy children aged 6 to 23 months

People capable of transmitting influenza to those at high risk of influenza-related complications	• Health care and other care providers in facilities and community settings who, through their activities, are potentially capable of transmitting influenza to those at high risk of influenza complications. • Household contacts (adults and children) of people at high risk of influenza complications, whether or not they have been immunized. These persons include household contacts of children < 6 months of age (who are at high risk of complications from influenza but for whom there is no available effective vaccine) and of children aged 6 to 23 months. Pregnant women should be immunized in their third trimester if they are expected to deliver during influenza season, as they will become household contacts of their newborn.

	• Those providing regular child care to children aged 0 to 23 months, whether in or out of the home • Those who provide services within closed or relatively closed settings to persons at high risk (e.g. crew on ships).
Others	• Those providing regular child care to children aged 0 to 23 months, whether in or out of the home • Those who provide services within closed or relatively closed settings to persons at high risk (e.g. crew on ships). • People who provide essential community services. • People in direct contact with avian-influenza infected poultry during culling operations. • Healthy persons aged 2 to 64 years, who should be encouraged to receive the vaccine, even if they are not in one of the aforementioned priority groups.

Table 2: Recommended influenza vaccine dosage, by age, for the 2006-2007 season [1]

Age	Vaccine type	Dose (mL)	N° of doses
6-35 months	split-virus	0.25	1 or 2*
3-8 years	split-virus	0.5	1 or 2*
≥ 9 years	split-virus	0.5	1
≥ 18 years	split-virus	0.5	1
*Previously unvaccinated children < 9 years require two doses of the split-virus influenza vaccine, with an interval of 4 weeks.			

1. National Advisory Committee on Immunization (2006). *Statement on Influenza Vaccination for the 2006-2007 Season.* Canadian Communicable Disease Report, 32, ACS-7. Retrieved August 20, 2006 from http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/06pdf/acs-32-07.pdf