Vancouver CoastalHealth
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Community Medicine Newsletter

New Vaccine Program for BC

In the immunization bulletin

1. **New publicly funded vaccine programs effective January 1, 2012**
   a. Rotavirus vaccination program using oral, two dose Rotarix® vaccine for children 2 and 4 months of age
   b. Second dose varicella (chickenpox) vaccine now funded for children 4-6 years of age
   c. Hepatitis A vaccination program for Aboriginal children and youth living on and off reserve
2. **Please stop providing the 18 month MMR dose as it is now deferred to 4-6 years of age**
3. **Influenza program updates**
   a. Egg allergy and influenza vaccination – new recommendations
   b. Fluad® adjuvanted influenza vaccine – expanded indication for all those 65 years and older
4. **Frequently asked immunization questions**
   a. Who requires a booster of the polysaccharide pneumoccocal vaccine?
   b. Which vaccine should I recommend: Gardasil® or Cervarix®?
5. **New childhood immunization schedule effective January 1, 2012**

1. New publicly funded vaccine programs effective January 1, 2012

Starting January 1, 2012 three new publicly funded vaccines will be added to the BC childhood immunization schedule: Rotavirus vaccine, a varicella (chickenpox) booster, and hepatitis A vaccine for Aboriginal children, both on and off reserve. Beginning January 1, these vaccines can be ordered from the health unit where you usually obtain your vaccines.

1a. Rotavirus vaccination program using Rotarix® for young children

Rotarix® is a live attenuated oral vaccine that protects infants against severe, dehydrating gastroenteritis (fever, vomiting and diarrhea) caused by rotavirus infection. Rotavirus is a highly infectious RNA virus that can survive on environmental surfaces for days. Infection spreads quite easily in child care settings and most children have an infection by 5 years of age. In Canada, it is the leading cause of diarrhea-related hospitalization. In addition 36% of infected infants see a physician for their illness and another 15% visit an emergency department. The vaccine is extremely effective in preventing infection (87%), visits to physicians (92%) and hospitalizations (100%). Countries that have implemented a rotavirus vaccination program, such as United States, Australia and Belgium have noticed a dramatic reduction in rotavirus related diarrhea and hospitalizations. In Mexico, all cause diarrhea related mortality dropped by 35% following introduction of rotavirus vaccine, with greatest effect noted in children under 12 months of age. Rotavirus vaccines are recommended by both the Canadian National Advisory Committee on Immunization and Canadian Paediatric Society.

The rotavirus vaccine is administered **orally** as two doses at 2 and 4 months of age. All infants born on or after November 1, 2011 will be eligible for free vaccine, and we strongly recommend it for all children. Timing of vaccine administration is important: the first dose can only be given between 6 and 20 weeks (5 months) of age and second dose must be given no later than 32 weeks (8 months) of age. Vaccine is packaged in a syringe and should be **administered orally and not injected**.

Rotarix® is a safe vaccine. Most infants who get Rotarix® do not experience any side effects. Common side effects include irritability and diarrhea. Uncommon side effects may include dermatitis, abdominal pain and/or flatulence. Risk of allergic reaction is extremely low and present with all vaccines. Intussusception, a form of bowel obstruction, has been reported rarely at a rate of 0-4 cases per 100,000 vaccine recipients. This is less

frequent than previously reported with Rotashield, a first generation rotavirus vaccine that was withdrawn from the market.

Rotarix® is contraindicated in immunocompromised infants, those with a history of intussusception, uncorrected gastrointestinal malformations or infants who may have received a blood product or immunoglobulin in the preceding 42 days.

Rotarix® is recommended for breastfed infants as breast milk does not offer complete or long lasting protection against rotavirus infection. Rotarix® is also recommended for children who have immunocompromised individuals at home; the affected individuals should not change the vaccinated infant's diapers for a two week period.

As Rotarix® vaccine contains sugar, it can be offered to children a few minutes before other intramuscular vaccines as oral sucrose solutions can decrease immunization associated pain.

We expect to receive vaccine inventory by mid December. Please place your orders with your local health unit office as usual. Your office can bill for administration using the rotavirus vaccine specific code: 10029.

1b. Booster dose of varicella vaccine

Evidence from the U.S., where infant varicella immunization began earlier than in Canada, indicates that a single dose of varicella vaccine given at age 1 year is not sufficient to provide long term protection. Therefore, as in the U.S., a varicella booster dose has been added to the immunization schedule in BC. The second dose should be given to children at **school entry (four to six years of age)**. While NACI recommends that the second dose can be given between 12 months and 12 years of age, providing the booster at 4-6 years allows for longer lasting protection while eliminating one injection (when varicella is given as MMR-V). Though the program is being launched in January 2012, children who started kindergarten in September 2011 can be caught up at any future visit if they have already received their 4-6 year booster.

1c. Hepatitis A vaccine for Aboriginal children and youth – on and off reserve

B.C.'s overall hepatitis A rates have declined over the past 15 years; however outbreaks have continued to occur in Aboriginal communities. Thus, a targeted vaccination program for Aboriginal children will help prevent further outbreaks. Eligibility is based on self-declared ethnicity.

Hepatitis A vaccine should be given to Aboriginal infants (First Nations, Inuit and Métis) at 6 and 18 months of age. In addition, Hepatitis A vaccine is recommended and provided free for all Aboriginal children and youth up to 19 years of age.

2. Changes to the 18 month MMR dose: now deferred to 4-6 years

Effective January 1 2012, you can stop giving the 18 month (or second) dose of MMR as it will be given later as combined tetravalent MMR-Varicella vaccine to children at the 4-6 year vaccination visit. The MMR-V vaccine will be available in 2015 for this purpose.

3a. Influenza program: Egg allergy and influenza vaccine

In the past, severe allergy to eggs has been one of the contraindications to influenza vaccination. In the recent statement on seasonal influenza vaccine 2011-2012 from the National Advisory Committee on Immunization this contraindication has been removed and the following recommendations included:

- Individuals who experience hives or other mild allergic reactions following egg ingestion CAN be safely vaccinated with influenza vaccine; they should be monitored for 30 minutes post-vaccination.
- Individuals who are at risk of a severe allergic reaction (i.e. those who experience angioedema, wheezing, nausea and vomiting or other symptoms requiring epinephrine following egg ingestion) CAN also be vaccinated using a two step immunization procedure. Give 10% of the flu vaccine dose (0.05 mL) followed by 30 minutes of observation. If no symptoms develop or are self-resolving, administer the

remaining 90% (0.45 mL) and observe for another 30 minutes. If a severe reaction arises after the 10% initial dose, the second larger dose should be withheld and individual re-evaluated by an allergist for receipt of influenza vaccine.

This recommendation arose following a review of six studies of over 2000 egg allergic individuals who received influenza vaccination. No one experienced anaphylaxis.

3b. Influenza program: Expanded indication for Fluad® – use in seniors 65 years and older

Fluad®, the MF59 adjuvanted influenza vaccine, is approved by Health Canada for those 65 years and older. Due to supply issues, we had previously asked that this vaccine be reserved for seniors 75 years and older. However, if you have Fluad® supplies remaining in your offices, you may now use this vaccine for all those 65 years and older.

4. Frequently asked immunization questions:
4a. Who requires a booster of the polysaccharide pneumococcal vaccine?

While revaccination generally is not recommended, a once-only revaccination is recommended and provided free for people who have:

- anatomic or functional asplenia, sickle cell disease, serious immunosuppression from disease or therapy, chronic kidney or liver disease.

Timing of booster is 3 years after initial vaccination for children who received their initial dose at $\leq$ 10 years of age; otherwise the booster is recommended 5 years after initial vaccine.

4b. Which vaccine should I recommend for those who don't qualify for publicly funded HPV vaccine: Gardasil® or Cervarix®?

Girls currently in grade 6 and those up to and including those turning 18 years of age in 2012 are eligible for the publicly funded HPV vaccine in BC (Gardasil®). Please catch-up all girls in your practice who were not vaccinated in school.

HPV vaccine is licensed in Canada for women up to 45 years of age and for men 9-26 years of age, and there are two licensed vaccines available for purchase for patients who are interested in vaccination: Gardasil®, which costs approximately $470 for the 3-dose series and Cervarix®, which costs approximately $330 for the series. Note: Gardasil® is the only vaccine currently licensed for use in men. Patients have a choice of these two products, which offer slightly different protection.

Both vaccines offer very good protection against cervical cancer caused by HPV serotypes 16 and 18, responsible for 75% of cervical cancer. Cervarix® also offers broader cross protection against related but rare high risk HPV types, 31 and 45, therefore may prevent more cervical cancers than Gardasil®.

Both vaccines offer protection against vaginal and vulvar cancers.

Gardasil® trials have also demonstrated protection against anal cancer; Cervarix® data are pending. Only Gardasil® protects against genital warts, caused by HPV serotypes 6 and 11.

2. Strongest Families BC: help for parents with kids' behaviour problems on referral by their primary care provider.

Strongest Families BC is a new resource to help families manage behaviour problems in their children between 3 and 12 through individualized counseling. This is a proven Canadian program adapted to BC by the Canadian Mental Health Association and MCFD. It requires a provider referral.

For more info: http://www.cmha.bc.ca/services/strongestfamilies

For the referral form: http://www.cmha.bc.ca/files/SF_ReferralForm.pdf

5. Routine infant and childhood immunization schedule effective 1 Jan 2012:

Age	Vaccines
2 months	**Oral rotavirus vaccine (NEW)** Diphtheria/Tetanus/acellular Pertussis/HB/IPV/Hib (INFANRIX hexa®) Pneumococcal conjugate Meningococcal C conjugate
4 months	**Oral rotavirus vaccine (NEW)** Diphtheria/Tetanus/acellular Pertussis/HB/IPV/Hib (INFANRIX hexa®) Pneumococcal conjugate Meningococcal C conjugate *(at-risk infants only)*[1]
6 months	Diphtheria/Tetanus/acellular Pertussis/HB/IPV/Hib (INFANRIX hexa®) Pneumococcal conjugate *(at-risk infants only)*[2] **Hepatitis A vaccine (Aboriginal children on and off reserve only) (NEW)** Influenza (during the influenza season)[3]
On or after 1st birthday	MMR Meningococcal C conjugate Varicella Pneumococcal conjugate Influenza (during the influenza season)[3]
18 months	Diphtheria/Tetanus/acellular Pertussis/IPV/Hib (PEDIACEL®) **Hepatitis A vaccine (Aboriginal children only) (NEW)** Influenza (during the influenza season)[3] ~~**Eliminated: MMR**~~ **(now moved to 4-6 years) (NEW)**
School entry 4-6 years of age[4]	Diphtheria/Tetanus/acellular Pertussis/IPV (QUADRACEL®) Varicella second dose**(NEW)** (to be changed to MMR-V in 2015)
Grade 6[4]	Meningococcal C conjugate booster HPV (girls only)
Grade 9[4]	Tetanus/Diphtheria/acellular pertussis (Adacel®)

[1] Four month meningococcal c conjugate vaccine dose is provided free for infants with the following conditions: functional or anatomic asplenia, immunodeficiency (congenital, acquired through disease or therapy), transplant recipients.

[2] Six-month pneumococcal conjugate vaccine dose is provided free for infants with the following conditions: anatomic or functional asplenia, sickle cell disease, hemoglobinopathies, immunosuppression, transplant recipients, chronic conditions of the heart, lung, liver, or kidney, diabetes, cystic fibrosis, chronic CSF leak, chronic neurological conditions that impair clearance of oral secretions, and cochlear implant.

[3] Influenza vaccine is provided free to infants 6-23 months of age and older children with risk factors; two doses one month apart are required if receiving influenza vaccine for the first time.

[4] Catch up vaccines (that is vaccines that an eligible child may have missed previously) are offered by public health nurses in kindergarten, grade 6 and grade 9.

Sincerely,

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