



# Communiqué

## Rotavirus Vaccine Program

In July 2010, the National Advisory committee on Immunization (NACI) recommended that all healthy infants from six weeks of age receive rotavirus vaccination. In Canada, there is a high prevalence of rotavirus gastroenteritis among children under five years of age. In Ontario, children under two years of age face the highest burden of disease and are most likely to suffer severe complications resulting in hospitalization. Rotarix™ is the rotavirus vaccine approved for use in Canada. It is a live attenuated vaccine. The Rotarix™ vaccine is a two-dose series for infants from six to 24 weeks of age and is given as two separate 1.5ml oral doses which must be separated by at least four weeks.

Most infants that receive the rotavirus vaccine do not experience any side effects. Common side effects include irritability and diarrhea. Uncommon side effects may include dermatitis, abdominal pain and/or flatulence. Rarely, infants could experience an allergic reaction such as an itchy rash, shortness of breath and swelling of the face or tongue. Severe reactions are very rare and may include a slight increased risk of intussusceptions.

Following the Rotarix™ vaccine, the excretion of the live attenuated vaccine virus in stool is known to occur and last for approximately 10 days with a peak excretion around the seventh day. Care givers should be advised to practice hand hygiene after contact with the vaccinated infant, after diaper changes and, before and after food preparation.

In order to ensure that infants receive optimal protection, the rotavirus vaccine (like other vaccines) must be maintained at a temperature of 2°C to 8°C.

## HPV vaccine update

Every year in Ontario, it is estimated that over 140,000 procedures for HPV related diseases and cervical cancer are performed. Each year 500 women will develop cervical cancer (Cancer Surgery in Ontario, 2003/2004 rates).

The International Agency for Research on Cancer (IARC) reports that HPV-associated cancers among both genders are estimated at 5.2% of all cancers worldwide. Similar to females, most HPV infections in males are asymptomatic. The risk of HPV infections peaks within the first five to ten years of the first sexual experience.

The vaccine administered in Ontario's HPV immunization program in schools is called Gardasil®. Gardasil® has been approved for use in Canada for males aged 9-26 and females aged 9-45. The vaccine protects against infection by two high risk types of HPV (16 and 18), which cause approximately 70% of cervical cancers and two low risk types (6 and 11) which cause approximately 90% of genital warts.

The HPV vaccine is available to all Grade 8 girls in Ontario. It's free and available through school-based clinics. It is also available to girls in Grades 9-12 who didn't receive or complete the three-dose immunization in Grade 8. The girls may "catch up" on missed doses and receive the vaccine by calling the Health Unit.

## Do we need to revaccinate Pneumo 23®?

Pneumo 23® (pneumococcal Polysaccharide Vaccine) is a capsular polysaccharide vaccine against the disease caused by 23 of the most common serotypes of *Streptococcus pneumoniae* (pneumococcus).

A single 0.5ml dose of pneumococcal polysaccharide vaccine is recommended for all individuals aged 65 and older including those with unknown vaccination histories. According to the National Advisory committee on Immunization (NACI) a single recommended booster dose with pneumococcal polysaccharide vaccine should be considered to those in the high risk category no sooner than 5 years after the initial vaccination for those 65 years and older.

High risk category includes those with functional or anatomic asplenia or sickle cell disease; hepatic cirrhosis; chronic renal failure or nephritic syndrome; HIV infection; solid organ or islet cell transplant (candidate or recipient) and immunosuppression related to disease or therapy.

Reference: National Advisory Committee on Immunization. Canada Communicable Disease Report CCDR. October 2013. Volume 39.

# Cold chain

## What is the cold chain?

"Cold chain" refers to the process used to maintain optimal temperatures between 2°C and 8°C during the transport, storage and handling of vaccines, starting at the manufacturer and ending with the administration of the vaccine to the client.

## Importance of the Cold Chain

Vaccines are sensitive biological products that may become less effective or even destroyed when exposed to temperatures outside the recommended range (2°C to 8°C). Cold sensitive vaccines experience an immediate loss of potency following freezing. Repetitive exposure to heat episodes results in a cumulative loss of potency that is not reversible.

Temperatures falling outside the recommended range (2°C to 8°C) require immediate action to avoid loss of product. Notify a member of our Vaccine Preventable Disease Program at the Health Unit right away at 519-426-6170 or 905-318-6623. We will consult with you regarding the type of vaccine, the duration and the temperatures reached during the exposure. Do not remove any vaccines from the fridge until you have contacted a member of the Health Unit from the Vaccine Preventable Disease Program.

### Transporting the Vaccine

Research has shown that a properly packed cooler for transporting vaccine can safely maintain cold chain (between 2°C to 8°C) for 1 ½ hours during transport. The Health Unit has supplied hard-sided coolers to transport vaccine from the Health Unit to physician and pharmacy offices. Included with the cooler are two flexible insulating blankets, a min-max thermometer and a gel pack.

### 1. Precondition

- The cooler: Place three frozen gel packs inside the cooler for 20 minutes prior to leaving the office.
- The flexible insulating blankets: Place in the refrigerator for at least two hours prior to use. Many offices store them in the fridges.
- The minimum-maximum thermometer: Place in the refrigerator for at least two hours prior to use.

2. When picking up vaccine at the Health Unit the minimum-maximum probe must be placed inside the cooler with the vaccine and the display must be visible on the outside of the cooler. The vaccine is then wrapped on the bottom in a flexible, insulating blanket.

3. The second insulating blanket is then placed on top of the vaccine.

A frozen gel pack should be placed on top of the insulating blanket for outdoor temperatures over 38°C.

## Vaccine Refrigerator

Vaccine should be stored in the middle of the refrigerator away from the coils, walls, floors and cold-air vents. Vaccine should never be stored in the vegetable bins or in the refrigerator door as these locations are subject to temperature fluctuations.

### Minimum and Maximum Thermometers

Temperature fluctuations outside the recommended range (2°C to 8°C) can be detected by referring to the minimum and maximum temperature readings. It is important to manually reset the thermometer by pressing the "RESET" button each time the temperatures are recorded. The minimum/maximum and current temperatures must be recorded twice daily-usually first thing in the morning and at the end of the day. The Health Unit must be notified as soon as possible if the temperature is out of the 2°C to 8°C range.

*Communique is a newsletter distributed by the Haldimand-Norfolk Health Unit for those who work in the area of Vaccines and Vaccine Preventable Diseases. If you have ideas or suggestions of topics for future Communiqués, please contact*



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