

March 8, 2006

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GTA PERTUSSIS ALERT:

- **167 lab confirmed *pertussis* cases in the Greater Toronto Area (GTA) between Nov 1, 2005 and Feb 9, 2006.**
- **Largest percentage of cases occurred in 1-4 years olds.**
- Among all the diseases for which there is routine immunization in Canada, *B. pertussis* is one which is still associated with significant illness and fatalities.

PEEL INFO ON PERTUSSIS:

- 5 lab confirmed pertussis cases in Peel Region from Nov 2005 to date. (3 out of the 5 cases have been under 4 years of age.)

HOW TO DIAGNOSE AND MANAGE

Symptoms of pertussis:

- 1) a paroxysmal cough
- 2) a cough associated with apnea or inspiratory whoop with no other known causes
- 3) a cough with vomiting or gagging

Due to waning immunity, many vaccinated children become susceptible to *B. pertussis* in adolescence and adulthood and in turn expose vulnerable younger children and infants.

Testing for confirmation of a pertussis case:

- Perform a nasopharyngeal (NP) swab for Polymerase Chain Reaction (PCR) using a *B. pertussis* testing kit.
- Transport medium in this kit is colourless.
- Testing is indicated for symptomatic people only, not asymptomatic contacts.

Note: To order a 6 pack *B. pertussis* Testing Kit (BP kit) call Provincial Health Lab @ 416-235-5820 or fax 416-235-5753.

Treatment of pertussis:

- Antibiotics should be started as soon as possible after onset of illness;
- There is no limit to the start date for treatment of symptomatic untreated cases of pertussis whose culture or PCR results are positive.
- Patients are no longer considered infectious after five days of appropriate antibiotic therapy.

Recommended treatment regime:

- **Erythromycin:** 40mg/kg three times daily in a divided dose for 7 days
- **Clarithromycin:** 15mg/kg two times daily in a divided dose for 7 days
- **Azithromycin:** 10mg/kg once daily for 1 day and then 5mg/kg once daily for 4 days

NB: an association between orally administered erythromycin and infantile hypertrophic pyloric stenosis has been reported in infants younger than 2 weeks of age (CCDR, 2003).

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Reporting Pertussis Contacts:

- All lab confirmed and clinically identified cases of pertussis must be reported to the Health Department
- Peel Health will identify and determine close contacts.
- **To report any/all cases of pertussis (whooping cough), contact Region of Peel - Health Department at 905-799-7700**

Chemoprophylaxis for Pertussis Contacts

For confirmed cases or clinically diagnosed cases, chemoprophylaxis is recommended for:

- **Household contacts** where there is a vulnerable person e.g. an infant <1yr old (vaccinated or not) or a pregnant woman in the 3rd trimester
- **Non-household exposure vulnerable individuals** include an infant <1yr old (vaccinated or not) or a pregnant woman in the 3rd trimester who have had face to face exposure and/or have shared confined air for > 1hour.

- Offer chemoprophylaxis ASAP
- Chemoprophylaxis is unlikely to be of any benefit after 21days from the first contact.
- The same antimicrobials and schedule should be used as outlined under treatment as for chemoprophylaxis.

Vaccine

- Immunization status of cases and contacts of cases should be reviewed.
- *Individuals less than 7 years of age:* Vaccine for *pertussis* is included in the routine childhood immunization schedule (Quadracel®)
- *Individuals older than 7 years of age:* Adacel® is another vaccine that offers protection against *pertussis*.

CONTACT US FOR MORE INFO:

For more information on pertussis or other communicable diseases, please contact Region of Peel – Health Department at 905-799-7700 or visit us online at: peelregion.ca

Other important facts about chemoprophylaxis:

UPDATE: INTERVAL OF dTAP FOR PERTUSSIS BOOSTER

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Vaccine Availability

The only product available for the protection of adolescents and adults against *B. pertussis* is a trivalent product containing diphtheria, tetanus and acellular pertussis (dTap) vaccine: brand name Adacel®.

There is no monovalent acellular pertussis vaccine currently available in Canada.

Previous Recommended Schedule

- A Td booster is recommended every 10 years
- A 5 year minimum interval between doses was encouraged.

New Schedule for dTap

- A diphtheria and tetanus toxoid containing vaccine within a 5 year time interval.

Conclusions from NACI

- No evidence of increased risk of severe adverse events for Canadian adolescents after receiving diphtheria- and tetanus toxoid-containing vaccines at intervals < 5 years.
- The administration of dTap to adolescents in need of a *pertussis* booster is recommended regardless of when the last Td booster was given.

- Individuals should be strongly encouraged to receive the protection against *B. pertussis* offered by dTap
- dTap is licensed in Canada for anyone between the ages of 11 and 54 years.
- dTap is publicly-funded only as a booster dose against for youth between the ages of 14 and 16 years.
- There is no approved schedule for the use of dTap in a primary series.
- For further information on this NACI recommendation, please see the following link:

http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/05vol31/acs-dcc-8-9/9_e.html

Canada Communicable Disease Report (CCDR). National Consensus Conference on Pertussis. (V29S3), April 2003

Health Canada (September 2003). Canada Communicable Disease Report. An advisory committee statement; National Advisory Committee on Immunization; Prevention of Pertussis in Adolescents and Adults.

Heymann, D.L. Control of Communicable Diseases Manual, 2004.

Health Canada (2002). *Canadian Immunization Guide: sixth edition.*

National Immunization Program; Centers for Disease Control and Prevention; U.S. Department of Health and Human Services; Guidelines for the Control of Pertussis Outbreaks (2000).

Public Health Agency of Canada (2005). Interval Between Administration of Vaccines against Diphtheria, Tetanus and Pertussis. *Canada Communicable Disease Report* 31(9), ACS 9, Oct 15, 2005.

Recommended dTap Schedule

