Prince Edward Island
CANADA
Health and Wellness

PERTUSSIS OUTBREAK 2014-05

The following is a review of the testing and treatment recommendations for the current pertussis outbreak.

Symptoms: Young children:

a) Catarrhal stage – mild respiratory symptoms or common cold;

b) Paroxysmal stage – cough usually with spasms with inspiratory whoop commonly followed by vomiting;

c) Convalescent stage – symptoms gradually decrease over weeks to months.

Older children and adults:

a) Often the typical whoop is absent but with a prolonged persistent cough being the common symptom. Grandparents can get pertussis.

Immunization: The current routine schedule provides pertussis vaccine at 2, 4, 6 and 18 months of age, 4 years and Grade 9. Children are not fully protected until the 4th dose at 18 months. In June, 2011 a "cocooning" program for postnatal mothers, fathers and close family caregivers was initiated and the vaccine is now free for all Islanders at Public Health Nursing clinics. The pertussis vaccine does reduce the severity of the illness but fully immunized children and adults may still get pertussis disease. Public Health Nursing will be following any lab confirmed cases and will ensure unimmunized contacts are offered the vaccine.

Diagnosis: The organism can be identified by nasopharyngeal aspirate and PCR testing. If you see a patient with possible symptoms, please consider testing if this is feasible.

Treatment of cases: PCR proven cases should receive antibiotics as soon as possible after diagnosis or up to 21 days after onset of symptoms. Antibiotics do not cure the symptoms but do reduce the contagiousness. It is considered that patients are no longer infectious after 5 days of therapy.

The period of "contagiousness" in an untreated case is considered up to 21 days after the onset of cough.

Recommended Medications:

1) **Younger than 1 month:**

A) Azithromycin 10 mg/kg/day as a single dose for 5 days **OR**

B) Erythromycin Estolate salt 40 mg/kg/day in 4 divided doses for 14 days (NOT the preferred option for this age due to increased incidence of hypertropic pyloric stenosis).

2) **1 through 5 months:** A) above **OR** B) above **OR**

C) Clarithromycin 15 mg/kg/day in 2 divided doses for 7 days.

3) **6 months or older and children:**

A) Azithromycin 10 mg/kg as a single dose on day 1 (maximum 500 mg); then 5 mg/kg/day as a single dose on day 2 through day 5 (maximum 250 mg/day);

OR

B) Erythromycin Estolate salt 40 mg/kg/day in 4 divided doses for 14 days (maximum 2 g/day);

OR

C) Clarithromycin 15 mg/kg/day in 2 divided doses x 7 days (maximum 1 gram/day).

4) **Adolescents and adults:**

A) Azithromycin 500 mg as a single dose on day 1, then 250 mg as a single dose on days 2 through day 5;

OR

B) Erythromycin Estolate salt 2 grams/day in 4 divided doses for 14 days;

OR

C) Clarithromycin 1 gram/day in 2 divided doses for 7 days.

Outbreaks: During an outbreak, clinically diagnosed cases should receive antibiotics up to 21 days after onset of symptoms (with or without being PCR proven). Treatment options are the same for clinically diagnosed patients as for cases (outlined above).

Chemoprophylaxis of contacts: Contacts of PCR confirmed cases **OR** of clinical cases during an outbreak of pertussis should receive chemoprophylaxis as outlined above if the contact is:

1) A "vulnerable" person who is identified as:

- an infant less than 1 year of age, vaccinated for pertussis or not **OR**

- a pregnant woman in the third trimester **AND**

2) The vulnerable person:

a) has had face-to-face contact for >5 minutes and/or shared confined air space for more than one hour with the case and/or direct contact with respiratory secretions (such as Health Care workers) **OR**

b) is a household contact (all household contacts require treatment) **OR**

c) attends a family day care (a day care with 6 or fewer children). All attendees require chemoprophylaxis.