

## Community Medicine Newsletter

### Pertussis outbreak continues in the Lower Mainland

High pertussis activity is continuing in our community. Cases have occurred in infants as young as one month and in adults up to 68 years of age. The highest rates of infection are among infants under one year of age and children aged 11 to 15 years. Three people, including two infants have been hospitalized. Both vaccinated and incompletely vaccinated people have been diagnosed with pertussis, but the risk of infection is highest among those who are not fully vaccinated. Significantly increased rates of pertussis infection are also reported in neighbouring Fraser Health and Washington State.

**At this time, we ask all physicians to maintain a high index of suspicion for pertussis in patients presenting with cough.**

### DIAGNOSIS OF PERTUSSIS

**Clinical diagnosis of pertussis is challenging.** Young children are more likely to present with classic pertussis, consisting of a catarrhal stage (non-specific coryzal illness, mild cough, lasting 1-2 weeks), paroxysmal stage (spasmodic cough, followed by gagging, vomiting, or inspiratory whoop), and a convalescent stage (slow improvement of symptoms over 1-2 weeks). Symptoms of pertussis infection in older children and adults may range from classic pertussis to mild or no cough.

Please **consider a diagnosis of pertussis** in any patient presenting with:

- cough for more than 2 weeks
- cough of any duration if in contact with a confirmed case of pertussis or a family cluster of prolonged cough
- paroxysmal cough
- cough with inspiratory whoop
- cough ending with gagging, vomiting or apnea.

For patients with a strong clinical suspicion of pertussis based on symptoms or history of contact with a known case, **laboratory testing** may not be needed to initiate treatment. We do however, **recommend testing** for pertussis when:

- you suspect pertussis in a patient with no known contacts to a confirmed pertussis case
- there is a family cluster of cough and no diagnosis of pertussis has been made
- results of testing will change your management

Throat swabs cannot be used to detect *Bordetella pertussis*. To diagnose pertussis, use a **nasopharyngeal swab**. If you do not have these in your office, please order them now (for free) from the Provincial Laboratory by faxing (**604.707.2606**) the order form found at:

<http://www.phsa.ca/NR/rdonlyres/357FE8D0-2020-4A34-9416-8C3B12C4F2C3/0/SampleContainerOrderForm.pdf>

Simple instructions for collecting a nasopharyngeal swab can be found at the following site:

<http://www.youtube.com/watch?v=DVJNWefmHjE>

If you do not have pertussis kit but have a wire cotton swab with charcoal media, it can also be used for pertussis specimen collection.

## TREATMENT OF PERTUSSIS

Antibiotic **treatment** is of benefit:

- during the early catarrhal stage of illness, when treatment may shorten duration of illness and reduce the infectious period. These patients are likely to present to physicians only if they know they are contacts of a case of pertussis.
- during the paroxysmal stage of illness when treatment does not affect the duration of illness but reduces the infectious period **to five days**. Without treatment, pertussis patients are infectious for approximately three weeks after the onset of cough.

Post-exposure **prophylaxis** is of limited efficacy, and is recommended only for those at highest risk of complications, or who are in contact with those at high risk. Please discuss individuals for whom you are considering post-exposure prophylaxis with the communicable disease control nurse at **604.675.3900**.

Pertussis can be treated with azithromycin, erythromycin or clarithromycin. Trimethoprim-sulfamethoxazole is recommended as the alternative agent if the others are contraindicated. Treatment recommendations are summarized on page 17 of the BC Pertussis guidelines available at:

[http://www.bccdc.ca/NR/rdonlyres/FEC42ABA-A725-4AD4-AE08-893234733BEA/0/EPI\\_Guideline\\_CDChapt1Pertussis\\_20100625.pdf](http://www.bccdc.ca/NR/rdonlyres/FEC42ABA-A725-4AD4-AE08-893234733BEA/0/EPI_Guideline_CDChapt1Pertussis_20100625.pdf)

## PREVENTION OF PERTUSSIS

- **Please report all suspect pertussis cases to VCH Communicable Disease Control (604.675.3900)** so that Public Health can follow-up on any high risk close contacts for whom antibiotic prophylaxis is recommended.
- **Patients with pertussis should stay home until after 5 days of antibiotic treatment.** Without antibiotics, patients are infectious until 3 weeks from onset of cough.
- **Free Adacel (Tdap) vaccine still available for your patients who have not had a pertussis containing vaccine in last five years. Those eligible for free Adacel are:**
  - All VCH adults (including pregnant women and their partners) and youth who have contact with young children
  - All health care workers who have contact with young children or pregnant women
  - All Aboriginal residents of VCH
  - Since pertussis can be severe, even fatal, in infants, it is especially important that infants receive their 2, 4 and 6 month immunizations without delay.

If you require further information, please contact the nurse on call at 604-983-6700.

Sincerely,



Brian A. O'Connor, MD, MHSc  
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