

September 5, 2012

**To:** Physicians in New Brunswick

**Subject:** Pertussis outbreak update and public health measures

Dear Colleagues:

This is to update you on the pertussis outbreak in New Brunswick. As of August 28, 1220 cases of pertussis have been reported to Public Health.

Cases of pertussis continue to be seen throughout the province. From the start of the year to the spring, the majority of cases were from Health Regions 1 and 2 (Moncton and Saint John areas respectively). Since the spring the number of cases in the northern regions of the province increased while the numbers in regions 1 and 2 decreased. At this time the most affected region remains Health Region 1, followed by Health Region 6 (Bathurst area) with 39% and 19% of cases respectively. The most affected age groups are the 10-14 year age group, followed by in the 20+ age group, the 5-9 age group, the 15-19 age group and 1-4 age group (42%, 24%, 16%, 9% and 7% of cases respectively). Infants under 1 year of age comprise 3% of the cases seen.

Overall pertussis activity in New Brunswick has decreased, however it remains significantly higher than what is expected for this time of the year. Enhanced surveillance is in place to monitor the evolving situation.

#### *Immunization*

Immunization is the best available intervention to protect against this disease.

In order to reduce the current rate of spread of pertussis in our province and improve immunity, the Office of the Chief Medical Officer of Health (OCMOH), will carry out a school-based immunization campaign with Tdap vaccine for students in grades 7, 8 and 9 in the fall. Students in the Moncton and Saint John areas have been offered immunization during a spring campaign in May and June this year.

School-based delivery by Public Health staff will allow for evaluation of this intervention and the capture of vaccine coverage statistics in this age group. If you provide immunization to grade 7, 8 and 9 students outside of the school-based delivery process, please notify the Regional Public Health Office.

Please check the vaccination status of all presenting patients to ensure that children and adults are up-to-date with their immunization according to the New Brunswick Routine Immunization Schedule<sup>1</sup>. School age children, adolescents and adults who did not receive a pertussis-containing vaccine in the last 5 years and who have close contacts with infants under 1 year of age should be offered pertussis vaccination (for individuals 7 years and older Tdap (Adacel or Boostrix) vaccine is recommended). For Adults who received a pertussis containing vaccine in adulthood (after 18 years of age), there are no recommendations for more booster doses as the duration of protection induced by acellular pertussis vaccine is unknown<sup>2</sup>.

Please counsel pregnant women you see in your practice about protection against pertussis. Available options include offering pregnant women, who previously have not received Tdap, vaccination during pregnancy preferably during the third or late second trimester or administering Tdap immediately postpartum<sup>3</sup>. Please discuss matters of immunization in pregnancy with Regional Medical Officer of Health if needed.

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<sup>1</sup> <http://www2.gnb.ca/content/dam/gnb/Departments/h-s/pdf/en/CDC/Immunization/RoutineImmunizationSchedule.pdf>

<sup>2</sup> Canadian Immunization Guide, Public Health Agency of Canada, 7<sup>th</sup> edition, 2006.

<sup>3</sup> <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6041a4.htm>

### *Notification*

Clinicians are requested to maintain a high index of suspicion for pertussis diagnosis and to consider pertussis infection in any patient presenting with compatible symptoms. Pertussis is a reportable disease under the Public Health Act in New Brunswick. Please report all suspected cases of pertussis to the Regional Medical Officers of Health verbally within 24 hours and in writing within 7 days. It is not necessary to wait for laboratory confirmation to report a suspected case.

### *Testing*

All patients presenting with compatible history and symptoms for pertussis should be tested, as this is important for confirmation of disease, surveillance and public health management.

### *Treatment*

In New Brunswick, antibiotic chemoprophylaxis is generally recommended for all close contacts *where there is a vulnerable person present among those close contacts*. A vulnerable person is usually an infant less than 1 year of age regardless of vaccination or a pregnant woman in the third trimester of pregnancy. If you are considering prophylaxis of close contacts of a case, please discuss this with your Regional Medical Officer of Health.

Antibiotics should be administered as soon as possible after onset of illness in patients with suspected pertussis to eradicate the organism and limit ongoing transmission. Antimicrobial agents administered during the catarrhal stage may also ameliorate the disease. Azithromycin, erythromycin and clarithromycin are appropriate first line agents for treatment and chemoprophylaxis of pertussis.

For specifics on diagnosis, testing, notification, treatment and prophylaxis please refer to the OCMOH website<sup>4</sup>.

For more information, please contact your regional Public Health office. Thank you very much for your assistance in managing this disease of public health importance.

Sincerely,



Alexander Doroshenko, MD, MPH, FFPH(UK), FRCPC  
Provincial Medical Officer

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<sup>4</sup> [http://www2.gnb.ca/content/gnb/en/departments/ocmoh/for\\_healthprofessionals/cdc.html](http://www2.gnb.ca/content/gnb/en/departments/ocmoh/for_healthprofessionals/cdc.html)