

## Info-MADO

## **Bulletin regarding reportable diseases (MADO) Nunavik Department of Public Health**

# CALL FOR VIGILANCE Cases of pertussis (whooping cough) in Nunavik

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#### **Context:**

Bordetella pertussis, the bacteria that causes whooping cough, is increasingly active in Québec this year. Between January 1st and August 27th of this year, 12,810 cases were reported, compared to a yearly provincial average ranging between 240 and 1,600 reported cases. The incidence rate is presently at 132 cases per 100,000 persons, whereas it was 6.75 between 2015 and 2019. Youth aged 10-14 years are still the most impacted group, followed by youth aged 15-19. Infants under the age of one are still the group accounting for the greatest proportion of hospitalizations. Nunavik had been spared until now, but since early August, 3 unrelated cases were reported in Umiujaq, which appears to indicate a community transmission of the disease. There was also the Blueberry Festival in Umiujaq, held from August 22nd to 24th, which could have facilitated the disease's transmission in the region.

In Québec, like elsewhere, a normal resurgence of cases of whooping cough is observed every 3 to 5 years, with the last wave dating back to 2019. The scope of this current increase can be explained in part by the very few cases of whooping cough during the COVID-19 pandemic, which engendered a significant rise in the number of susceptible persons.

#### Key facts about whooping cough:

<u>Transmission mode:</u> The bacteria are transmitted by respiratory secretions or droplets from infected persons.

Incubation: Generally varies between 5 and 10 days, but can be as long as 21 days.

<u>Contagiousness:</u> This period begins around 1 to 2 weeks before the appearance of coughing (during the catarrhal phase) and lasts until around 5 days after the onset of antibiotic therapy or until the person is no longer coughing. If there is no antibiotic therapy given, the infectious period can persist for up to 3 weeks after the onset of coughing.

#### Clinical presentation:

Pertussis progresses in 3 phases and lasts on average from 6 to 10 weeks.

- The **catarrhal phase**, which lasts about 1 or 2 weeks, and is characterized by general symptoms such as dizziness/malaise, anorexia, rhinorrhea (thin nasal discharge/runny nose), teary eyes and a dry cough.
- The paroxysmal phase, which can last anywhere from 1 to 6 weeks and is characterized by coughing which can manifest itself in different ways depending on the age and vaccination status of the person having contracted the disease: paroxysmal cough cough with inspiratory whooping sound cough ending by vomiting, nausea, apnea or cyanosis.
- The **convalescence phase**, which lasts between 2 to 6 weeks or sometimes longer, and is characterized by the progressive resolution of the symptoms.
- Complications: Babies under 1 year old are at higher risk of complications following whooping cough. The majority of infected children under 6 months are hospitalized. However, it is children under 3 months who experience the most serious complications. They account for nearly half of all hospitalizations, the majority of admissions to intensive care, and almost all deaths due to whooping cough. Nonetheless, deaths remain rare.



#### **Diagnosis:**

The diagnosis should be considered in anyone with a cough lasting more than 2 weeks without an obvious cause and with at least one of the following characteristics: paroxysmal cough (fits), whooping sound, or cough leading to vomiting. The diagnosis is confirmed by nasopharyngeal PCR.

#### **Treatment:**

Antibiotic treatment is recommended for pertussis, unless the cough has been present for more than 3 weeks. The antibiotics used to treat pertussis are the same as those recommended for antibiotic prophylaxis, with identical dosages and duration of administration. Although they have little effect on the clinical course once the cough is established, antibiotics accelerate the elimination of the microorganism and limit the spread of the disease.

#### **Prevention:**

Having the disease does not provide long-term immunity. However, getting vaccinated against whooping cough can offer protection from the disease or significantly diminish the associated complications and the severity of the symptoms. Vaccination of pregnant women prevents around 90% of hospitalizations and 95% of deaths related to whooping cough among infants aged less than 3 months.

Vaccination is the best protection against whooping cough. Three initial doses are generally administered, when an infant is 2, 4 and 12 months. This is followed by a booster shot when the child is between 4 and 6 years of age. A booster dose is also recommended for pregnant women, between weeks 26 and 32, and this for each pregnancy.

#### What is expected of clinicians:

- Take a sample for every suspected case.
- Quickly report all cases to the Department of Public Health (DPH).
- Assess close contacts who are symptomatic.
- Exclude the case from daycare during de contagious period.
- If the case attends primary or secondary school, recommend wearing a mask during contagious period.
- Promote overall hygiene, respiratory etiquette and hand hygiene.
- Update whooping cough vaccines as per the recommendations of the PIQ (Québec Immunization Protocol), and this for both children and pregnant women.

#### **Public Health interventions:**

Public Health interventions have the primary objective of protecting infants under one year of age, as they are more at risk in terms of complications.

An epidemiological investigation is initiated for every case and includes, among other things, seeking out close contacts at risk of developing complications. An antibiotic prophylaxis could be offered.

### Any case of pertussis or other notifiable diseases (MADO) must be reported to the DPH as instructed below:

- Fill out the form AS-770 and send it:
  - by email at <u>mado-declarations.rr17@ssss.gouv.qc.ca</u> OR
  - by fax at 1-866-867-8026;
- During evenings, weekends, and holidays, the declaration must also be made by phone to the DPH on-call doctor for Infectious Diseases at 1-855-964-2244 or 1-819-299-2990.

These contact details are reserved for healthcare professionals and should not be shared with the public.