

Date: Monday, December 11, 2023

To: South Zone Physicians and Midwives

From: Medical Officers of Health – South Zone

**Subject: Ongoing PERTUSSIS Outbreak in South Zone – most recent increased cases in Pincher Creek, Cardston and County of Lethbridge**

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As of December 6, 2023, there have been 394 confirmed cases of Pertussis identified in South Zone this calendar year. The South Zone Pertussis outbreak was initially declared late January 2023. A similar increase in Pertussis cases has also been seen in Central and North Zones, with a total of 831 cases reported across Alberta this year.

**In the past three weeks, most cases have been reported in the areas of Pincher Creek, Cardston County and Lethbridge County. All cases have been locally acquired.** Public Health is unable to identify epidemiological links for the majority of these cases, implying that there is more disease that continues to circulate throughout our communities.

Breakdown for Alberta cases:

- 71.6% of reported cases are in children under 10 years of age
- 88.3% of all cases are unimmunized or partially immunized
- For vaccinated persons, the most common age group for breakthrough disease is 10 to 14 year olds, as they typically had their last booster at 4 years of age, and are awaiting their grade 9 booster.

## **ACTIONS:**

Please maintain a high index of suspicion for Pertussis infection especially in unimmunized children and adults

**Testing of patients:** PCR testing of a nasopharyngeal specimen (NP swab) obtained during the first 3 weeks of disease. Use the **Regan-Lowe Transport media**, which is black and is stored in the refrigerator. Tests may be negative if taken beyond the 3 week window. If you do not have access to Regan-Lowe media, **viral UTM** is another option supported by lab.

## **Management of Case:**

- Antibiotics for confirmed cases (see page 3)
  - Treatment eradicates B. Pertussis from the nasopharynx but has minimal effect on clinical symptoms or course of pertussis illness unless given in the early stages of infection (incubation period, catarrhal or early paroxysmal stages).
- All cases are recommended to stay home and not expose new people **for five days** after start of antibiotic therapy.
- If there is no treatment or treatment is incomplete, the case should be excluded from places where there are vulnerable persons:
  - for 21 days from onset of paroxysmal, or until the end of the cough, whichever comes first.

**Management of Contacts:**

- Public Health will follow up with all contacts of a confirmed Pertussis case to offer post exposure prophylaxis to protect “vulnerable persons” (i.e., women in the third trimester of pregnancy and infants under one year of age).
- Postexposure prophylaxis should be offered to all vulnerable persons with significant exposure to a Pertussis case and to household contacts, regardless if vulnerable persons are in the household.

**Prevention:**

- Immunization as per Alberta Immunization Schedule for children and adults.
- Adults are eligible for dTap vaccine every ten years
- One dose of Pcontaining vaccine for pregnant women in third trimester.
- Early diagnosis and treatment to prevent spread to others.

**References:**

Alberta Notifiable Disease Guidelines at <https://open.alberta.ca/dataset/28b7c03a-f2e1-4b61-b1cc-e2cad282522a/resource/5c3ba9ad-c039-489d-b9d7-8b270a22cde1/download/health-phdmq-pertussis-2021-09.pdf>

Recommended Antibiotics		
Antibiotic	Dosage	Comments
Azithromycin	<p><b>Infants &lt; 6months:</b> 10 mg/kg/day as a single dose orally daily for 5 days</p> <p><b>Infants &gt; 6mo to Children &lt; 12years:</b> Day 1: 10 mg/kg/day once daily po to a maximum of 500 mg/day. Day 2-5: 5mg/kg/day one daily po to a maximum of 250 mg/day. Total: 5 days</p> <p><b>Children &gt; 12years and Adults:</b> Day 1: 500 mg once daily po Day 2-5: 250 mg once daily po Total: 5 days</p>	First line
Clarithromycin	<p><b>Infants &gt; 6mo to Children &lt; 12years:</b> 15 mg/kg/day divided in 2 doses po x 7 days (maximum of 1000 mg/day)</p> <p><b>Children &gt; 12years and Adults:</b> 500 mg bid po x 7 days</p>	Second Line Not recommended for infants aged < 1 month and in pregnancy

Erythromycin	<b>Adults:</b> 500 mg po QID x 7 days	Third Line for adults ONLY
Trimethoprim-Sulfamethoxazole (TMP-SMX)	<b>Infants &gt; 2mo to Children &lt; 12years:</b> 8 mg/kg/day (TMP) and 40 mg/kg/day (SMX) divided into 2 doses po x 14 days  <b>Children &gt; 12years and Adults:</b> 320 mg/day (TMP) and 1600 mg/day (SMX) divided into 2 doses x 14 days	Alternate – used only if above drugs are contraindicated. Cannot be used for children under the age of 2 months, in pregnancy or during lactation

**If you have any questions, or require further information, please contact the Medical Officer of Health on call at 403-388-6111.**