



Information Sheet

Date: May 7, 2019

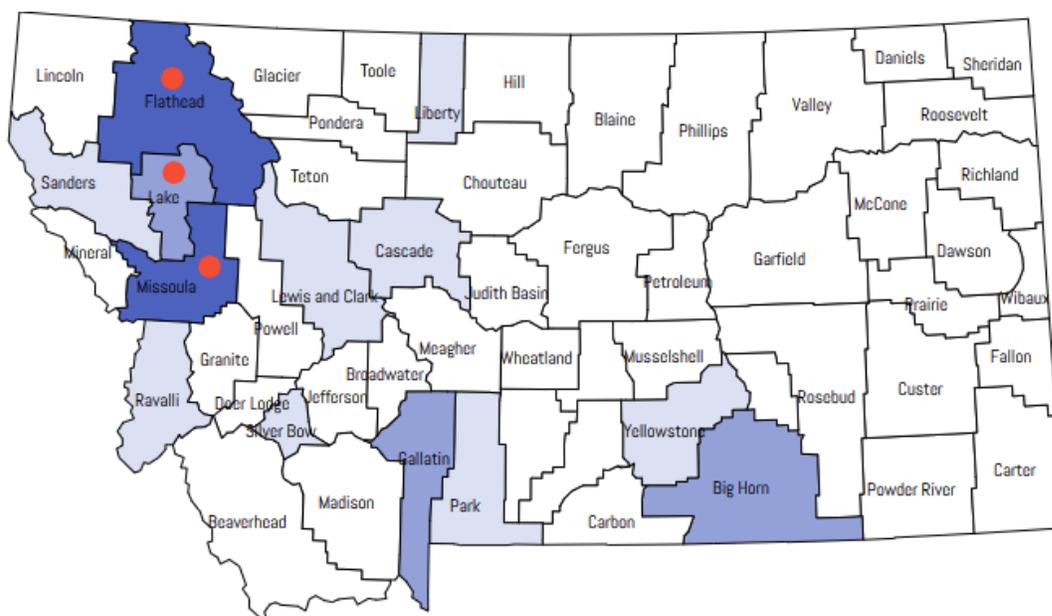
Subject: Pertussis Activity in Montana

Information: Recommendations for period of increased pertussis activity in MT

Background

From January 1st through May 4th, 2019, 143 cases of pertussis from 13 county and tribal health jurisdictions have been reported. Among these cases, 5 (3%) occurred in children aged <12 months and 97 (65%) in school aged children between 5 and 17 years of age. Two outbreaks have been reported year to date in Missoula and Lake Counties, and one outbreak in Flathead County began in late 2018 lasting through early 2019. The yearly total of pertussis cases for 2018 was 143 matching this the 2019 cumulative number.

Pertussis Cases, by County, Montana, May 4th, 2019



- Outbreaks reported
Flathead 2018-2019
Lake, Missoula 2019
- 1-9 Cases
- 10-29 Cases
- 30+ Cases

Summary of Requested Action

- Maintain a high clinical index of suspicion for pertussis, see guidance below regarding testing, treatment and pos-exposure prophylaxis.
- Report all suspect and confirmed cases of pertussis to your local health department immediately.
- Be sure all patients are up-to-date on pertussis vaccination, especially the following persons:
- Pregnant women at 27-36 weeks gestation, healthcare workers, and child care personnel.

Diagnostic testing

What diagnostic test should be used when testing for pertussis?

(NOTE: Testing of asymptomatic individuals/contacts to cases is NOT recommended)

- Pertussis PCR is the preferred diagnostic test.
- The optimal time to test is within 3-5 weeks after cough onset.
- PCR results are typically available the same day the specimen is received at MTPHL Monday through Friday; however, this may be longer during an outbreak due to the number of samples received.
- Please refer to the attached technical guidance for pertussis testing.

Treatment

- If within 3 weeks of cough onset, begin antibiotic treatment based on laboratory confirmation or clinical diagnosis. **Negative results do not rule out pertussis if clinically suspected.**
- Azithromycin (5-day regimen), clarithromycin, and erythromycin are the preferred treatments for persons aged >1 month. For infants aged <1 month, azithromycin is the preferred treatment. Infants aged <1 month who receive a macrolide should be monitored closely for adverse events, including infantile hypertrophic pyloric stenosis. Persons aged ≥2 months may be treated with trimethoprim-sulfamethoxazole as an alternative to macrolide therapy.

Post-Exposure Prophylaxis of Contacts

The preferred antibiotic regimen for post-exposure prophylaxis (PEP) of close contacts is the same as for treatment.

- PEP is recommended for contacts to pertussis cases within 21 days for the following individuals
 - Household contacts
 - Those who are at high risk of severe illness. These include:
 - Infants and women in their third trimester of pregnancy—severe and sometimes fatal pertussis-related complications occur in infants <12 months of age, especially among infants <4 months of age. Women in their third trimester of pregnancy may be a source for transmission of pertussis to their newborn infant.
 - All persons with pre-existing health conditions that may be exacerbated by a pertussis infection (e.g., immunocompromised persons and patients with moderate to severe medically treated asthma).
 - Contacts who themselves have close contact with either infants <12 months of age, pregnant women, or individuals with pre-existing health conditions at risk for severe illness or complications.
 - All contacts in high-risk settings that include infants <12 months of age or women in the third trimester of pregnancy, which include but are not limited to, neonatal intensive care units, childcare settings, and maternity wards.

A broader use of PEP may be appropriate in limited closed settings, when the number of identified cases is small, and when a community-wide outbreak is not ongoing. Contact your local health department for recommendations on pertussis PEP.

Vaccination

- Make sure all children aged <7 years are up-to-date on their DTaP series.
 - Ensure the following persons have received a single dose of Tdap:
 - Children 7-10 years not fully immunized with DTaP
 - Adolescents aged 11–18 years
 - Pregnant women 27-36 weeks gestational age during each pregnancy
 - Healthcare and child care personnel
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Public Health Considerations

- **Report all suspect or confirmed cases of pertussis to your local health department.**
- **Exclusion during infectious period of illness:** Administrative Rules of Montana stipulate persons suspected of having pertussis should not return to daycare, school, work, nor attend activities in public until the patient has completed 5 days of antibiotic treatment or 21 days has passed since the onset of cough.
- **Cases of public health interest:** Testing may be requested for persons of public health interest to confirm illness and guide contact investigations and/or response.

Resources

1. Centers for Disease Control and Prevention. Whooping Cough Vaccination; Centers for Disease Control and Prevention: Atlanta, GA, 2019.
<http://www.cdc.gov/pertussis/vaccines.html>
2. Centers for Disease Control and Prevention. Manual for the Surveillance of Vaccine-Preventable Disease, Chapter 10: Pertussis; Atlanta, GA, November 10, 2017. <https://www.cdc.gov/vaccines/pubs/surv-manual/chpt10-pertussis.html>
3. Montana's Immunization Program website.
<http://www.dphhs.mt.gov/publichealth/immunization/>
4. Montana Department of Public Health and Human Services website:
<https://dphhs.mt.gov/publichealth/cdepi/diseases/pertussis>

DPHHS Technical Guidance on Pertussis: Testing

What is pertussis real-time PCR testing?

- Detects DNA sequences of *Bordetella spp.* (including *B. pertussis*, *B. parapertussis*, and *B. holmesii*).
- Provides timely results compared to culture (usually 1-2 days from receipt at MTPHL).

When is PCR testing indicated?

- Test only **symptomatic** patients.
- Collect specimen up through 3–5 weeks after cough onset.
- PCR testing is not indicated after 5 days of antibiotic treatment.

What about culturing for pertussis?

- Culturing can require up to 7 days for a result and is no longer being performed at MTPHL.

What about Serology testing?

- Serology testing is not standardized and not available at MTPHL.
- Contact public health before considering use of serology to test for pertussis.

When are results available?

- PCR results are typically available the same day the specimen is received at MTPHL Mon–Fri.
- However this may be longer during an outbreak due to the number of samples received. STAT weekend testing is available upon consultation.
- Collection supplies available upon request.

Who should I contact for testing information?

- MTPHL lab toll free number 1-800-821-7284

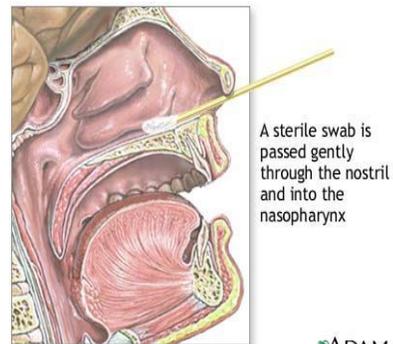
References:

1. MT Public Health Laboratory, Laboratory Services Manual
2. Centers for Disease Control and Prevention. Manual for the Surveillance of Vaccine Preventable Diseases. Chapter 10: Pertussis; October 2017
3. American Academy of Pediatrics. Pertussis. Red Book: 2018 Report of the Committee on Infectious Diseases. Pickering LK, ed. 31st ed. pg.62001

How do I collect a specimen for Pertussis PCR?

Collect specimen by **nasopharyngeal (NP) swab**:

- Use a flexible wire with a small dacron swab.
- Insert the swab into the nostril (see picture).
- Slide NP swab posteriorly into the back of the nasopharynx.
- Slowly rotate swab while withdrawing NP swab.



ADAM.

- Place swab in sterile test tube **without** transport media.
- **Note:** Do not submit nasal or throat swabs.
- Nasopharyngeal washes/aspirates may be tested, but are **not** recommended

How do I transport the specimen to the laboratory?

- Label specimens with name and date of birth and complete laboratory requisition. Enclose specimen in a biohazard bag and appropriate shipping container.
- Transport NP swabs in sterile container at **Ambient** (room) temperature
- **Note:** If sending nasal washes/aspirates, transport in sterile container in **cold condition** (coolant packs in Styrofoam cooler)