

# PERTUSSIS KEY MESSAGES FOR HEALTHCARE PROVIDERS IN WASHINGTON

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## Background

Pertussis is cyclical and peaks every 3 to 5 years as immunity from vaccination and disease wanes in the population. The number of cases reported each year has varied considerably over the last two decades, ranging from 15 to a high of 4,916 during the 2012 outbreak. Health jurisdictions also have variations in the rate of reported disease, reflecting local outbreaks.

There have been a total of 1,665 confirmed and probable cases of pertussis reported statewide during 2024 as of November 30, 2024 (CDC Week 48). This is in comparison to the 68 cases reported at the same time in 2023. This represents a more than 20-fold increase in pertussis cases over the previous year. 32 of 39 Washington state counties have reported pertussis activity during 2024, however, the Centers for Disease Control and Prevention (CDC) estimates people only identify and report 10% of pertussis infections to public health. For more information regarding pertussis activity and surveillance, please see the [Weekly Pertussis Update](#) for Washington state.

## Action Requested

- The CDC recommends all pregnant people receive a tetanus, diphtheria, and pertussis (Tdap) vaccination during each pregnancy. Give the vaccine as early as possible, between 27 and 36 weeks of gestation. In addition to the Vaccine Information Statement (VIS), provide information on why the vaccine is beneficial and safe for the pregnant person and their infant.

Vaccination during each pregnancy reduces the risk of a parent with pertussis infecting the baby. Additionally, vaccination during pregnancy can also provide passive protection for the baby in the first few months of life when they are too young to get vaccinated and are the most vulnerable.

- Stock Tdap vaccine in your healthcare setting. If you do not stock Tdap at your location, follow [CDC's guidance and make a strong referral](#) to get Tdap vaccination. Additionally:
  - Provide specific information on where patients can get Tdap vaccine, such as a nearby pharmacy.
  - Have a plan in place to answer questions from other immunization providers concerned with vaccinating your pregnant patients.
- Fully immunize all children against pertussis. Ensure that infants and children receive the primary DTaP series on schedule. Administration without delays is essential for reducing severe disease in infants and children.
- Give one dose of Tdap to all adolescents per [CDC's Childhood and Adolescent Immunization Schedule](#). Table 1 at the end of this document also summarizes pertussis vaccine recommendations. Give one dose of Tdap to all adults per [CDC's Adult Immunization Schedule](#). Recommend Tdap vaccination to household members and other close contacts of infants.
- Consider the diagnosis of pertussis in the following situations, even if the patient has been immunized:
  - An infant less than three months of age displaying a persistent or worsening cough with no fever or a low-grade fever, or an older infant without other explanation.
  - An infant less than one year of age displaying a persistent or worsening cough with no fever or a low-grade fever and any of the following symptoms: Apnea, Cyanosis, Post-tussive Vomiting, Seizure, Pneumonia, Non-purulent Coryza, Inspiratory Whoop

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- A patient of any age with a cough illness lasting longer than 7 days that is paroxysmal, accompanied by gagging, post-tussive emesis, or inspiratory whoop.
- A patient with a cough illness of any duration, no alternative diagnosis, and:
  - Is in the third trimester of pregnancy.
  - Is in close contact with infants or pregnant people.
  - Has had contact with someone known to have pertussis or a prolonged cough illness that has lasted more than 2 weeks and has no other alternative diagnosis.
- To confirm pertussis, send a nasopharyngeal specimen for pertussis polymerase chain reaction (PCR) or culture. PCR is the most commonly used test. PCR is more sensitive than a culture, meaning it is less likely to be falsely negative. However, false positive test results can occur. Test early in the course of illness, if possible. Culture is less sensitive than a PCR test and results can be falsely negative if it was obtained from a previously immunized person, if antimicrobial therapy has started, if more than two weeks have elapsed since cough onset, or if the specimen is not collected or handled appropriately. A negative culture result does not rule out pertussis infection.
  - Testing is not necessary if the patient is a close contact of a lab-confirmed pertussis case.
- Report pertussis cases within 24 hours to your [local health jurisdiction](#).

## Vaccination

Vaccination is the best tool we have for preventing or reducing serious illness from pertussis. The most effective strategy to protect infants who are most at risk for severe pertussis disease is to vaccinate all pregnant people during each pregnancy, preferably as early as possible between 27 and 36 weeks of gestation. It is important to vaccinate all children with the DTaP series on time and give a Tdap dose to adolescents and adults.

Although most children and adults have been vaccinated for pertussis, protection from the vaccine wanes over time. Some people who are fully vaccinated may still become infected. Vaccinated children and adults who get pertussis are likely to present with milder symptoms.

## Preventing Transmission of Pertussis

To prevent ongoing transmission of pertussis:

- Vaccinate
- Rapidly identify pertussis cases
- Provide appropriate treatment
- Have patients follow isolation guidelines
- Educate patients about good respiratory etiquette

## Testing

Pertussis should be considered in anyone with a severe or persistent cough. Testing is appropriate until about three weeks after the onset of paroxysmal coughing. After three weeks of coughing, infectiousness and test accuracy decrease significantly.

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Testing is most critical for symptomatic persons who are either high risk or may expose someone who is high risk. Only test patients who display signs and symptoms of pertussis. Testing asymptomatic persons increases the likelihood of obtaining false-positive results.

If one member of a household tests positive, it is not necessary to test other family members who present with similar symptoms. If multiple members of a household present at the same time with symptoms, it is sufficient to test one person, preferably the one with the most recent onset of symptoms.

If you have a high risk patient whom you think should be tested but is uninsured, contact your [local health jurisdiction](#) to talk about possible testing options.

## Persons considered at high risk of pertussis:

- Infants less than one year of age
- Pregnant people, particularly those in their third trimester
- Anyone who may expose infants less than a year old or pregnant people, such as:
  - Members of a household with infants or pregnant people
  - Child care workers who take care of infants
  - Healthcare workers with face-to-face contact with infants or pregnant people
  - Childbirth educators

## Treatment and prophylaxis

If you strongly suspect pertussis:

1. Treat the patient whether or not you test. Do not wait for test results. Negative test results do not rule out pertussis.
2. Exclude the patient from work, school, or child care until the patient completes five full days of appropriate antibiotics. Consult with your [local health jurisdiction](#) if you have questions about exclusion.
3. Give preventative antibiotics to the entire household and to any high-risk close contacts.

See Table 2 below for recommended antibiotic treatment and prophylaxis.

## Reporting

Report all patients with suspected or lab-confirmed pertussis to your [local health jurisdiction](#) within 24 hours.

For infant pertussis cases, include the following in the infant's medical record and in your report to your local health jurisdiction:

- The parent's Tdap vaccination status
- The date they were vaccinated or the reason they were not vaccinated

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**Table 1. Pertussis vaccine recommendations by age group.**

<b>Birth - 6 years of age</b>	Dtap vaccination is routinely recommended at 2, 4, and 6 months, at 15-18 months, and at 4-6 years of age. <i>Note: Infants that you consider to be at increased risk for exposure to pertussis can receive their first dose of DTaP as early as 6 weeks.</i>
<b>7 – 10 years of age</b>	Tdap vaccination is recommended for those who are not fully vaccinated.  Vaccinate according to the ACIP catch-up schedule, with Tdap preferred as the first dose.
<b>11 – 18 years of age</b>	Tdap vaccination is routinely recommended as a single dose with preferred administration at 11-12 years of age.  If they are not fully vaccinated, refer to the ACIP catch-up schedule to determine what vaccines are indicated.  If no Tdap vaccine was given at 11-12 years of age, Tdap vaccination is recommended at the next patient visit, or sooner if they have close contact with infants.
<b>Adults 19 years of age or older</b>	Tdap vaccination is recommended to replace the next 10-year Td booster for any adult who has not received a previous Tdap dose. Tdap can be administered regardless of interval since the previous Td dose, especially if the adult has close contact with infants.
<b>Pregnant people</b>	Tdap vaccination is recommended with each pregnancy. Vaccination is preferred as early as possible between 27-36 weeks of gestation and at least 2 weeks before anticipated delivery.  Tdap vaccination is recommended in the immediate postpartum period before discharge, if they were not vaccinated prior to or during pregnancy.
<b>Close contacts of infants</b>	DTaP or Tdap vaccination (depending on age) is recommended for all family members and caregivers if they are not up to date. Vaccination should be given at least two weeks before coming into close contact with infants.
<b>Healthcare personnel</b>	Tdap vaccination is recommended for those who have not previously received a dose and who have direct patient contact. This is essential for those who have direct contact with babies younger than 1 year of age.

(Information in Table 1 includes [updated ACIP recommendations](#). Please check CDC’s website for the most updated vaccination information.)

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**Table 2. Recommended antimicrobial treatment and post-exposure prophylaxis for pertussis, by age group.**

Age	Recommended Drugs			Alternative
	Azithromycin	Erythromycin	Clarithromycin	TMP-SMX
Younger than 1 month of age	10 mg/kg/day as a single dose daily for 5 days <b>b,c</b>	40 mg/kg/day in 4 divided doses for 14 days	Not recommended	Contraindicated at younger than 2 mo
1 through 5 month of age	10 mg/kg/day as a single dose daily for 5 days <b>b</b>	40 mg/kg/day in 4 divided doses for 14 days	15 mg/kg/day in 2 divided doses for 7 days	2 mo or older: TMP, 8 mg/kg/day; SMX, 40 mg/kg/day in 2 doses for 14 days
6 months of age or older and children	10 mg/kg as a single dose on day 1 (maximum 500 mg), then 5 mg/kg/day as a single dose on days 2 through 5 (maximum 250 mg/day) <b>b,d</b>	40 mg/kg/day in 4 divided doses for 7-14 days (maximum 2 g/day)	15 mg/kg/day in 2 divided doses for 7 days (maximum 1 g/day)	2 mo or older: TMP, 8 mg/kg/day; SMX, 40 mg/kg/day in 2 doses for 14 days
Adolescents and adults	500 mg as a single dose on day 1, then 250 mg as a single dose on days 2 through 5 <b>b,d</b>	2 g/day in 4 divided doses for 7-14 days	1 g/day in 2 divided doses for 7 days	TMP, 320 mg/day; SMX, 1600 mg/day in 2 divided doses for 14 days

SMX indicates sulfamethoxazole; TMP indicates trimethoprim.

**a.** Centers for Disease Control and Prevention. Recommended antimicrobial agents for the treatment and postexposure prophylaxis of pertussis: 2005 CDC guidelines. [MMWR Recomm Rep. 2005;54\(RR-14\):1-16](#)

**b.** Azithromycin should be used with caution in people with prolonged QT interval and certain proarrhythmic conditions.

**c.** Preferred macrolide for this age because of risk of idiopathic hypertrophic pyloric stenosis associated with erythromycin.

**d.** A 3-day course of azithromycin for PEP or treatment has not been validated and is not recommended.

**Reproduced from Recommended Antimicrobial Agents for the Treatment and Postexposure Prophylaxis of Pertussis: Red Book: 2024 – 2027**

Committee on Infectious Diseases, American Academy of Pediatrics. David W. Kimberlin, MD, FAAP, ed. 2024. Red Book: 2024-2027 Report of the Committee on Infectious Diseases - 33rd Ed. American Academy of Pediatrics. ISBN 978-1-61002-734-2. eISBN 978-1-61002-735-9. ISSN 1080-0131