

# IDRS Infectious Disease Reporting System

Disease Reporting 24 Hours a Day

Columbus Public Health and Franklin County Public Health

## QUICK FACTS FOR PROVIDERS: Pertussis

### Reporting Information

- **Class B1:** Report by the close of the next business day after the case or suspected case presents and/or a positive laboratory result to the local public health department where the patient resides. If patient residence is unknown, report to the local public health department in which the reporting health care provider or laboratory is located.

### Agent

*Bordetella pertussis*, a Gram-negative coccobacillus; a pertussis-like syndrome can also be caused by *B. parapertussis*; *parapertussis* is not reportable in Ohio.

### Source

Humans are the only reservoir.

### Occurrence

The disease is common to children worldwide. Since the 1940's, there has been a marked decline in the United States and other countries where immunization levels are high. The disease might be more common in adults than previously thought, but it is often not considered in the differential diagnosis.

### Transmission

Through direct contact with discharges from an infected person, usually by the airborne route. Communicability is greatest in the catarrhal stage and the first two weeks after cough onset (i.e. approximately 21 days).

### Period of Communicability

Communicability gradually decreases and becomes negligible for ordinary nonfamilial contacts in about three weeks, despite spasmodic cough with whoop. For control purposes communicability extends from seven days after exposure to three weeks after the paroxysmal stage in patients not treated with effective antibiotics. In treated patients, infectiousness extends for five days after onset of therapy.

### Incubation Period

Commonly 5-10 days, with an upper limit of 21 days.

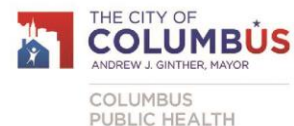
### Treatment



c/o Franklin County Public Health, 280 East Broad Street, Columbus, Ohio 43215-4562

Call: (614) 525-8888 • After Hours: (614) 525-3965 • Fax: (614) 525-8890

Email: [idders@franklincountyohio.gov](mailto:idders@franklincountyohio.gov) • Web: [www.idrsinfo.org](http://www.idrsinfo.org)



COLUMBUS  
PUBLIC HEALTH

# IDRS Infectious Disease Reporting System

Disease Reporting 24 Hours a Day

Columbus Public Health and Franklin County Public Health

Spread of pertussis can be limited by decreasing infectivity of the patient and by protecting close contacts of that patient. Antimicrobials given in the catarrhal stage may ameliorate the disease. After paroxysms are established, however, antimicrobials have no discernible effect on the course of the illness and are given primarily to limit the

spread of the organisms to others. The macrolide agents azithromycin, erythromycin and clarithromycin are preferred for treatment of pertussis in persons aged  $\geq 1$  month (see table for dosing recommendations). For infants  $< 1$  month azithromycin is preferred, erythromycin and clarithromycin are not recommended. For persons  $\geq 2$  months old who cannot tolerate macrolides, an alternative agent is trimethoprim-sulfamethoxazole [TMP-SMX]. The choice of antibiotic for treatment or prophylaxis should take into account effectiveness, safety, tolerability, ease of adherence to the regimen prescribed and cost.

## Isolation

The Ohio Administrative Code (OAC 3701-3-13, (R)) states that “a person with pertussis who is not treated with effective antimicrobial therapy, shall be isolated, including exclusion from school or child care center, until three weeks after the onset of paroxysms. If effective antimicrobial therapy is given, the person shall be isolated for five days after initiation of antimicrobial therapy”.

## Contacts

To prevent or minimize transmission, chemoprophylaxis is recommended for all close contacts and all household members of a pertussis case-patient, regardless of vaccination status. A close contact of a patient with pertussis is anyone who has had face-to-face contact or shared a confined space for a prolonged period of time with an infected individual. Close contacts also can include persons who have direct contact with respiratory, oral or nasal secretions from a symptomatic patient (e.g. cough, sneeze, sharing food and eating utensils, mouth-to-mouth resuscitation, or performing a medical examination of the mouth, nose, and throat).

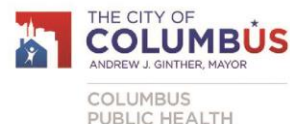
Postexposure prophylaxis with an effective antimicrobial agent can be administered to contacts. The decision to prophylaxis is made after considering the infectiousness of the patient and the intensity of the exposure, the potential consequences of severe pertussis in the contact, and the possibilities for secondary exposure of persons at high risk from the contact (e.g. infants aged  $< 12$  months; persons with some immunodeficiency conditions; persons with other underlying medical conditions such as chronic lung disease, respiratory insufficiency, or cystic fibrosis.) Prophylaxis of asymptomatic household contacts within 21 days of onset of cough in the index patient can prevent symptomatic infection.



c/o Franklin County Public Health, 280 East Broad Street, Columbus, Ohio 43215-4562

Call: (614) 525-8888 • After Hours: (614) 525-3965 • Fax: (614) 525-8890

Email: [ids@franklincountyohio.gov](mailto:ids@franklincountyohio.gov) • Web: [www.idrsinfo.org](http://www.idrsinfo.org)



# IDRS Infectious Disease Reporting System

Disease Reporting 24 Hours a Day

Columbus Public Health and Franklin County Public Health

Symptomatic (coughing) household members of a pertussis patient should be treated as if they have pertussis. \*\*Columbus Public Health and Franklin County Public Health will exclude **symptomatic household members** from childcare, school, and extracurricular activities until 5 full days of antimicrobial therapy have been completed. Notification will be recommended at the child care or school exposed by direct communication with the local health department.

Columbus Public Health and Franklin County Public Health recommend testing **any symptomatic close** contacts of known pertussis cases who are seen in your practice. If the contact tests positive, this is reported to CDRS and allows the local health department to follow up on that case's household and separate close contacts.

Because severe and sometimes fatal pertussis-related complications occur in infants aged <12 months, especially among infants aged <4 months, postexposure prophylaxis should be administered in exposure settings that include infants aged <12 months or women in the third trimester of pregnancy. The recommended antimicrobial agents and dosing regimens for postexposure prophylaxis are the same as those for treatment of pertussis (see table). All persons should be watched closely for respiratory symptoms for 14-21 days after contact is broken.

## Vaccine (in addition to antimicrobials)

All close contacts younger than 7 years of age who have not completed the four-dose primary series should complete the series with the minimum intervals. Close contacts who are 4-6 years of age and who have not yet received the second booster (usually the 5th dose of DTaP) should be vaccinated. The administration of Tdap to persons 10-64 years of age who have been exposed to a person with pertussis is not contraindicated, but the efficacy of postexposure use of Tdap is unknown.

## References:

Ohio Infectious Disease Control Manual <http://www.odh.ohio.gov/pdf/IDCM/pertus.pdf>  
Recommended Antimicrobial Agents for the Treatment and Postexposure Prophylaxis of Pertussis.

Morbidity and Mortality Weekly Report. 2005 December 9; 54 (RR14); 1-16. Available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5414a1.htm>.



c/o Franklin County Public Health, 280 East Broad Street, Columbus, Ohio 43215-4562

Call: (614) 525-8888 • After Hours: (614) 525-3965 • Fax: (614) 525-8890

Email: [idrs@franklincountyohio.gov](mailto:idrs@franklincountyohio.gov) • Web: [www.idrsinfo.org](http://www.idrsinfo.org)

