S.C. Department of Health and Environmental Control

South Carolina Health Alert Network

This is an official

DHEC Health Advisory

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Increase in Pertussis Cases in South Carolina

Summary

An increased number of pertussis cases has been identified in South Carolina. This increase has primarily been identified in school settings and among household contacts.

Neither pertussis infection nor vaccination is absolute, and re-infection can occur. Older children and adults with mild illness can transmit the infection and are often the source of illness in infants. Therefore, early recognition and treatment of pertussis in infected individuals and antibiotic prophylaxis of household members is especially important.

DHEC is advising clinicians to consider the diagnosis of pertussis for clinically compatible illnesses, to perform confirmatory diagnostic testing when possible, and to promptly report suspected or confirmed cases to DHEC so that control measures can promptly be initiated.

Guidance for clinicians

Symptoms

In adolescents and adults, pertussis can be misdiagnosed as asthma or bronchitis. Patients reporting prolonged coughing spells ≥2 weeks, with episodes of paroxysmal or spasmodic cough, whoop after cough, or post-tussive vomiting should be evaluated for pertussis. Infants may present with apnea and/or cyanosis.

Transmission and Risk Factors

Bordetella pertussis is a respiratory illness commonly known as the whooping cough. It is spread person to person, usually when an infected person coughs or sneezes or when a person has frequent exposure to an infected individual. When pertussis circulates in the community, there is a chance that a fully vaccinated person, of any age, may become infected. Infected individuals are most contagious up to about 2 weeks after the cough begins.

Anyone can get pertussis. However, high risk groups are more vulnerable to the disease and may develop severe illness. High risk individuals include: infants, pregnant women, individuals who are immunocompromised, individuals with moderate to severe medically treated asthma, individuals with pre-

existing health conditions that may be exacerbated by a pertussis infection, all contacts in high-risk settings (e.g. neonatal intensive care units, childcare settings, and maternity wards), and individuals who have close contact with either infants under 12 months or with individuals at risk of developing severe illness or complications.

Testing

If pertussis is clinically suspected, consider collection and submission of specimens for laboratory confirmation. The preferred laboratory tests for confirmation of pertussis is isolation of *Bordetella pertussis* by culture and Polymerase Chain Reaction (PCR) testing. The organism is more likely to be found early in the coughing phase. Pertussis PCR testing may be performed on persons receiving macrolide antibiotics through the 6th day of treatment. After 3-4 weeks into the disease, or once antimicrobial treatment has begun, the organism may have cleared the nasopharyngeal area; hence, cultures may be negative.

Both PCR and culture are considered confirmatory in the presence of a clinically compatible illness. Testing can be done at a local hospital or a reference laboratory. If assistance with testing is needed, please contact the DHEC Public Health Regional Office in your area.

Treatment

The recommended antimicrobial agents for treatment of pertussis include azithromycin, clarithromycin, erythromycin, and Trimethoprim-sulfamethoxazole. Azithromycin for 5 days is the recommended treatment of choice for both suspect cases and asymptomatic contacts. If this drug is not tolerated, clarithromycin, erythromycin, or trimethoprim sulfamethoxazole may be substituted. CDC recommendations for antimicrobial agents to use for treatment and post-exposure prophylaxis (PEP) may be found on page 10 of the December 9, 2005 MMWR Recommendation and Report: Recommended Antimicrobial Agents for Treatment and Post-Exposure Prophylaxis of Pertussis (http://www.cdc.gov/mmwr/PDF/rr/rr5414.pdf).

Symptomatic children and/or adults may return to school, childcare, or work after completing the first 5 days of medication. Exposed persons without cough illness do not require exclusion from school, childcare, or work.

Antibiotic Prophylaxis Recommendations

Even fully vaccinated persons may be able to contract/spread pertussis, so antimicrobial prophylaxis of contacts is critical to reducing transmission. **The CDC supports PEP of all household contacts to cases, as well as for persons at risk for severe pertussis.** These include:

- Infants under 12 months of age
- Women in their third trimester of pregnancy
- All persons with pre-existing health conditions that may be exacerbated by a pertussis infection (for example, but not limited to immunocompromised persons and patients with moderate to severe medically treated asthma).

Post-exposure prophylaxis is also recommended for contacts who themselves have close contact with either infants under 12 months, pregnant women or individuals with pre-existing health conditions at risk of severe illness or complications. PEP is provided regardless of age or vaccination status.

Immunization Recommendations

Vaccination of susceptible persons is the most important preventive strategy against pertussis.

The CDC recommends that children between 7 and 10 years of age who have not completed their primary immunization schedule, or who have unknown vaccination history, receive a single dose of Tdap. If they require additional tetanus and diphtheria toxoid doses, Td should be used. Patients 10 years of age and older may receive a single dose of Tdap regardless of interval since last tetanus or diphtheria toxoid-containing vaccine. In addition, the American Academy of Pediatrics recommends that when pertussis is prevalent in a community:

- DTaP immunization can be started as early as 6 weeks of age.
- Doses 2 and 3 in the primary DTaP series can be given at intervals as short as 4 weeks.

Resources for Additional Information

Centers for Disease Control and Prevention (2017). Pertussis (Whooping Cough): Treatment.
https://www.cdc.gov/pertussis/clinical/treatment.html

Centers for Disease Control and Prevention (2017). Pertussis (Whooping Cough): Information for Health Professionals.
https://www.cdc.gov/pertussis/outbreaks/pep.html

Centers for Disease Control and Prevention (2018). Vaccines and Preventable Diseases: Diphtheria, Tetanus, and Pertussis Vaccine Recommendations.
https://www.cdc.gov/vaccines/vpd/dtap-tdap-td/hcp/recommendations.html

South Carolina Department of Health and Environmental Control (2018). Pertussis (Whooping Cough).
http://www.scdhec.gov/Health/DiseasesandConditions/InfectiousDiseases/BacterialDiseases/Pertussis/

National Foundation for Infectious Diseases. Pertussis (Whooping Cough).
http://www.nfid.org/pertussis/

Reporting Cases

Pertussis is reportable within 24 hours of identification of a case or suspect case.

DHEC contact information for reportable diseases and reporting requirements

Reporting of pertussis is consistent with South Carolina Law requiring the reporting of diseases and conditions to your state or local public health department. (State Law # 44-29-10 and Regulation # 61-20) as per the DHEC 2018 List of Reportable Conditions available at: http://www.scdhec.gov/Library/CR-009025.pdf

Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512).

Regional Public Health Offices – 2018

Mail or call reports to the Epidemiology Office in each Public Health Region

MAIL TO:

Lowcountry	Midlands	Pee Dee	Upstate
4050 Bridge View Drive, Suite 600 N. Charleston, SC 29405 Fax: (843) 953-0051	2000 Hampton Street Columbia, SC 29204 Fax: (803) 576-2993	145 E. Cheves Street Florence, SC 29506 Fax: (843) 661-4859	200 University Ridge Greenville, SC 29602 Fax: (864) 282-4373

CALL TO:

Lowcountry	Midlands	Pee Dee	Upstate
Berkeley, Charleston, Dorchester Phone: (843) 953-0043 Nights/Weekends: (843) 441-1091	**Kershaw, Lexington, Newberry, Richland** Phone: (803) 576-2749 Nights/Weekends: (888) 801-1046	**Chesterfield, Darlington, Dillon, Florence, Marlboro, Marion** Phone: (843) 661-4830 Nights/Weekends: (843) 915-8845	**Anderson, Oconee** Phone: (864) 260-5581 Nights/Weekends: (866) 298-4442
Beaufort, Colleton, Hampton, Jasper Phone: (843) 549-1516 ext. 218 Nights/Weekends: (843) 441-1091	**Chester, Fairfield, Lancaster, York** Phone: (803) 286-9948 Nights/Weekends: (888) 801-1046	**Clarendon, Lee, Sumter** Phone: (803) 773-5511 Nights/Weekends: (843) 915-8845	**Abbeville, Greenwood, McCormick** Phone: (864) 260-5581 Nights/Weekends: (866) 298-4442
Allendale, Bamberg, Calhoun, Orangeburg Phone: (803) 268-5833 Nights/Weekends: (843) 441-1091	**Aiken, Barnwell, Edgefield, Saluda** Phone: (803) 642-1618 Nights/Weekends: (888) 801-1046	**Georgetown, Horry, Williamsburg** Phone: (843) 915-8804 Nights/Weekends: (843) 915-8845	**Cherokee, Greenville, Laurens Pickens, Spartanburg, Union** Phone: (864) 372-3133 Nights/Weekends: (866) 298-4442

For information on reportable conditions, see http://www.scdhec.gov/Health/FHPF/ReportDiseasesAdverseEvents/ReportableConditionsInSC/

DHEC Bureau of Disease Control
Division of Acute Disease Epidemiology
2100 Bull St · Columbia, SC 29201
Phone: (803) 898-0861· Fax: (803) 898-0897
Nights / Weekends: 1-888-847-0902

Categories of Health Alert messages:

Health Alert	Conveys the highest level of importance; warrants immediate action or attention.
Health Advisory	Provides important information for a specific incident or situation; may not require immediate action.
Health Update	Provides updated information regarding an incident or situation; unlikely to require immediate action.
Info Service	Provides general information that is not necessarily considered to be of an emergent nature.