EpiCenter

Palm Beach County Health Department
Division of Epidemiology & Disease Control
1050 West 15th Street, Riviera Beach, FL 33404

Phone: (561) 840-4564 SC 263-4564
Weekends/Evenings: (561) 840-4500
FAX: (561) 845-4496 SC 263-4496
Website: http://www.pbchd.com

June 2004

SPECIAL EDITION: PERTUSSIS

Pertussis is a highly communicable infectious disease that has made a resurgence in the United States. In the early to mid 1900's pertussis, or whooping cough, was a major cause of childhood mortality in the U.S. The incidence rates significantly decreased after the introduction of pertussis vaccine in the 1940's. By the early 1980's, however, the incidence of pertussis began to gradually increase. At present there are cyclic epidemics, which occur every 3 to 4 years. The majority of the cases are among children under age 5, but in recent years, an increasing number of cases have been reported among adolescents and adults. Florida reports approximately 49 confirmed cases per year.

This special edition of the EpiCenter newsletter is published in order to provide health care practitioners with needed information regarding the diagnosis, treatment and reporting of pertussis. **It is recommended that physicians include pertussis in the differential diagnosis of coughing illness in persons of all ages.** Symptoms include a catarrhal stage, characterized by the insidious onset of runny nose, sneezing, low-grade fever and a mild, occasional cough, similar to the common cold. The cough gradually becomes more severe, and after 1-2 weeks, the second, or paroxysmal stage, begins in which the patient has bursts or paroxysms of numerous, rapid coughs. Vomiting and exhaustion commonly follow the episode.

The CDC National Immunization Program has provided detailed guidelines for the Control of Pertussis Outbreaks.

http://www.cdc.gov/nip/publications/pertussis/guide.htm

The information in the following chapters will be especially useful to healthcare professionals:

- Chapter 1, *Background*
- Chapter 2, *Diagnosis and Laboratory Methods*
- Chapter 3, *Treatment and Chemoprophylaxis*
- Chapter 5, *Special Conditions*
- Chapter 9, *Hospitals, Institutions and Clinics*

To report a pertussis case, the health care provider should call the Palm Beach County Health Department, Division of Epidemiology & Disease Control at (561) 840-4566 from 8:00 AM to 5:00 PM, Monday – Friday, FAX (561) 845-4496. Any urgent or unusual situation may be reported 5:00 PM to 8:00 AM, weekends and holidays to (561) 840-4500.

Epidemiology Staff

Savita Kumar, MD, MSPH
Director

Judith M. Cobb, RN, MSPH
Community Health Nursing Consultant

Barbara F. Johnson, RN, BSN
Senior Community Health Nursing Supervisor

JoEllen Alvarez, RN, MPH
Nursing Program Specialist/Coordinator

M. Teresa Bonafonte, PhD, MPH, MS
Florida Epidemic Intelligence Service Officer

Andre Erich Correa, MD
Senior Human Services Program Analyst

Vanessa P. Hightower
Staff Assistant

Khalia Hill, MPH
Public Health Prevention Specialist

Cynthia Lewandowski, RN, BS
Senior Community Health Nurse

Lessett Lozito
Senior Clerk

Francelli Lugo, MPH
Senior Human Services Program Analyst

Kimberly Owens
Human Services Program Specialist

Denise Pagán
Human Services Program Consultant and *EpiCenter* editor
DeniseA_Pagan@doh.state.fl.us

Ginger A. Stanley, BHS
Administrative Assistant I

WANTED: CONTACT INFO
Please e-mail or snail-mail us your current contact information (address, phone, fax, & e-mail) to attn: Denise Pagán.

We would love to keep in touch!!!

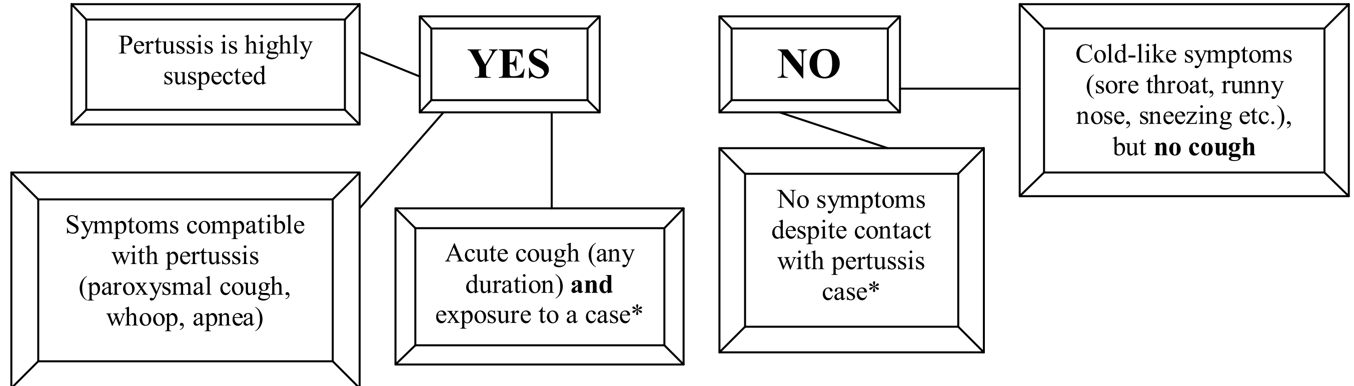
ADDITIONAL INFORMATION ON PERTUSSIS

Flow Chart for Pertussis Testing, Treatment and Chemoprophylaxis in an Outbreak Setting

(Revised October 10, 2001)

TEST PERSON? (Note: confirm outbreak by >1 culture-confirmed case)

(nasal aspirate or posterior nasopharyngeal (**not the throat**) Dacron™ (not cotton) swab should be taken within 3 weeks of cough onset; innoculate on Regan Lowe or Bordet-Gengou plate or half-strength Regan-Lowe for transport)



The standard and preferred laboratory test for diagnosis is **isolation of B. pertussis by culture**. Since Direct Fluorescent Antibody (DFA) testing of nasopharyngeal secretions has been shown to have low sensitivity and variable specificity, it should not be relied on as a criterion for laboratory confirmation.

Who gets TREATED**

Erythromycin or Trimethoprim Sulfamethoxazole for 14 days and first five days off work or school

Persons with any of the following:

- Symptoms compatible with pertussis
- Acute cough AND exposure to case*
- Acute cough AND PCR-positive
- Positive culture result

Persons aged >1 year: treat within 3 weeks cough onset

Who gets PROPHYLAXIS**

Erythromycin or Trimethoprim Sulfamethoxazole for 14 days

- All close contacts to a case* (especially in high risk settings such as hospitals, households with infants, etc.)
- Prophylaxis of additional contacts may be warranted in some settings
- Persons aged >1 year: prophylax within 3 weeks of exposure to infectious case

** Dosage:

Erythromycin: (14 days)
Children: 40-50 mg/kg/day divided QID
Adults: 2 g/day divided QID

OR

Trimethoprim (T) Sulfamethoxazole (S) (Bactrim): (14 days)
Children: 8 mg/kg/day (T) and 40 mg/kg/day (S) divided BID
Adults: 320mg/day (T) and 1600mg/day (S) divided BID

OR

Clarithromycin 15-20 mg/kg/day orally in two divided doses; maximum 1 g/d for 10-14 days is also likely to be effective and thus, is an alternative for patients who cannot tolerate erythromycin per the American Academy of Pediatrics

***NOTE: A PCR-positive result in person without a cough is NOT a case.**

Source: Centers for Disease Control and Prevention. Guidelines for the Control of Pertussis Outbreaks. Centers for Disease Control and Prevention: Atlanta, GA, 2000.