



## Safety and Health Advisory for Pertussis

The Office of the Medical Director has received a new advisory from the Austin/Travis County Health and Human Services Department to increase your awareness regarding the ongoing pertussis situation in Travis County and recent changes in the epidemiologic pattern of the disease.

In November/December, 2009, the Austin/Travis County Health and Human Services Department (ATCHHSD) identified 140 confirmed and probable pertussis cases and the Department is currently investigating an additional 94 suspect pertussis cases. The demographics of these newer cases differ from cases that were reported earlier last year.

- Pertussis cases are now being identified in younger, high risk age groups (age range from 2 weeks through 4 years). In April and May 2009, the predominant ages reported were between 7 to 11 years of age with occasional cases under one (1) year of age.
- Cluster outbreaks are occurring in childcare centers and in elementary schools (both public and private) located in both southern and northern Travis County whereas previous outbreaks were occurring predominantly in northern Travis County.
- PCR positive lab-confirmed results are now being seen in vaccinated children presenting with mild symptoms.

The ATCHHSD has issued pertussis recommendations to 13 schools and daycares during the months of November and December.

ATCHHSD provides written recommendations to a school or daycare when the following 3 conditions are met:

- An individual that attends the school or daycare is identified with a PCR positive lab result for pertussis
- A case-patient with pertussis was present at the facility during the period of communicability. Cases are highly communicable in the early catarrhal stage and at the beginning of the paroxysmal cough stage (first 2 weeks). Thereafter, communicability gradually decreases and becomes negligible in about 3 weeks, despite persisting spasmodic cough with whoop. When treated with erythromycin, clarithromycin or azithromycin, patients are no longer contagious after 5 days of treatment. The paroxysmal cough routinely presents 5 to 7 days into illness. The ATCHHSD considers patients no longer contagious after 21 days from onset of cough or after completion of 5 days of antibiotic treatment.
- A case-patient with pertussis was present at the facility and infectious within the prior 21 days (post-exposure prophylaxis will benefit other exposed individuals).

The ATCHHSD would like you to increase your clinical suspicion for pertussis in the differential diagnosis when appropriate – including in evaluation of immunized patients with mild illness. While our interactions with pertussis patients have been when they

present with an illness requiring emergency medical intervention, there maybe less severe presentations that make it important as health care providers to be informed and understand the disease of pertussis to use this ongoing outbreak as an opportunity to re-enforce the prevention practices that are effective not only against pertussis but other respiratory illnesses as well.

Pertussis, also called “whooping cough,” is a highly contagious bacterial infection that causes coughing. Anyone can get pertussis. Pertussis can be especially life-threatening to infants too young to be immunized. Infants often get pertussis from older children or adults whose symptoms are milder. Because of this route of transmission, it is important to identify cases as early as possible so that the source patient within the family unit can be identified, evaluated, and treated.

Pertussis may begin like a cold, with a runny nose, sneezing, mild fever, and cough. After one to two weeks, the cough gets worse and usually starts occurring in strong coughing fits. This type of coughing may last for six or more weeks. There is generally no fever during this time. In young children, coughing fits are often followed by a “whooping” sound as they try to catch their breath. After coughing, a person may vomit, have difficulty catching their breath, or become blue in the face. The coughing spells may be so bad that it is hard for babies to eat, drink, or breathe. The cough is often worse at night, and cough medicines usually do not help reduce the cough. Between coughing spells, the person often appears to be well. Some babies may only have apnea (failure to breathe) and can die from this.

Children who have been vaccinated against pertussis as well as adults and teens often have milder symptoms that mimic bronchitis or asthma. Adolescents and adults may not present with the classical “whooping” cough, thereby not triggering pertussis as a suspect cause.

Pertussis can be especially dangerous for infants. Pertussis can cause apnea, which maybe the reason for our response to start with, pneumonia, and swelling of the brain (encephalopathy), which can lead to seizures and brain damage. Death from pertussis is rare, but more common with infants.

The pertussis bacteria are sprayed into the air when an infected person sneezes, coughs, or talks (Droplet Spread). Other people nearby can then inhale the bacteria. The first symptoms usually appear within 5 days to 21 days after a person is infected.

A doctor diagnoses patients with pertussis from their symptoms. To confirm the diagnosis, the doctor will swab the back of the nose for laboratory testing. It is important to remember laboratory tests may be negative even if a patient has pertussis.

Antibiotics are used to treat the infected person and their close contacts. In addition, it is helpful to get plenty of rest and fluids. Persons hospitalized with severe pertussis may need special treatments to help them through prolonged periods of coughing.

Pertussis can be prevented among household members and others in close contact with an infected person by treating the exposed persons with antibiotics, even if they have been vaccinated.

Vaccination of children and adults can also prevent pertussis. Experts recommend that all babies and children be given a full series of DTaP vaccine unless there is a medical reason not to receive the vaccine. Vaccination against pertussis is also recommended for older children and adults. Because vaccine protection begins to fade in older children and adults, it is important to adhere to the recommended Tetanus Diphtheria Acellular Pertussis (Tdap) booster vaccine. This vaccine is currently available and the recommendations for administration should be incorporated into the immunization schedule for all system patient care providers.

While we may not be requested to scenes specifically for pertussis, we should remain alert and assist as important early sentinels in uncovering possible pertussis cases within our community. Given that many illnesses present with the same respiratory signs and symptoms, it is important to continue to follow our plan.

Upon contact with every potentially infected patient, remember:

- Obtain the “view from the door”
- Respiratory precautions (eyewear, mask, and gown)
- Mask for the patient or minimize expectoration of respiratory secretions from the source patient
- Consider “wrapping” the patient prior their being moved
- Notify the receiving facility to ensure such patients directed to appropriate isolation areas to reduce possible transmission to susceptible individuals.
- Adhere to principles of good hand hygiene.
- Should you have a suspicion that a patient may have pertussis, notify the Infection Control Officer so the Austin / Travis County Health Department can be notified and undertake the necessary surveillance as soon as possible.

As always, our vigilance and non-complacency are extremely important.

Should you have any questions or require additional assistance, please contact the System Infection Preventionist, Bill Coll at 978.0030 or [bill.coll@ci.austin.tx.us](mailto:bill.coll@ci.austin.tx.us)