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Health Care Provider Advisory
Pertussis Cluster in Area High School
April 24, 2017

Requested Actions

- Remain vigilant for patients presenting with clinical syndromes suggestive of pertussis (whooping cough).
- Test and then treat empirically for cases with high clinical suspicion for pertussis
- Suspected cases should remain isolated at home (no school, no work) until a five-day course of azithromycin is completed.
- Provide chemoprophylaxis to household contacts of cases and other close contacts of cases who have risk factors for severe disease (e.g., infants, pregnant women). Do so regardless of immunization status, symptom presentation, or test results.
- **Contact YHD Communicable Disease Control at (509) 249-6541 to report suspected and confirmed cases.**
- Provide Tdap boosters to adolescents who have not had a booster since school entry. One dose of Tdap is recommended for those 11 years or older, with a preferred administration at 11 or 12 years of age. Tdap is also recommended for pregnant women during each pregnancy, with a preferred administration during the early part of gestational weeks 27 through 36.

Background

Since Friday, April 14, four cases of laboratory confirmed pertussis have been reported among students attending Granger High School. Investigation of the cluster is underway.

Clinical Information & Recommendations

- Pertussis is typically a non-febrile paroxysmal cough illness preceded by several days of upper respiratory symptoms. Coughing spasms can be followed by vomiting. In younger children and infants, post-tussive phenomena can also include inspiratory whoop, apnea, and cyanosis. Complications include otitis media, pneumonia, subconjunctival hemorrhage, and rib fracture. Severely affected children can develop respiratory distress and hypoxic encephalopathy. The illness may present only as a prolonged cough, particularly in adolescents and adults who have been previously immunized. The coughing spasms can persist for up to six weeks.
- Testing is generally conducted by collecting a posterior nasopharyngeal swab and submitting it to a commercial laboratory for pertussis PCR testing. DFA testing is of low sensitivity, is generally not available, and is not recommended. Culture is more specific, but availability is limited and results can take up to seven days. If submitting a culture specimen, please do so *in addition* to submitting a swab for PCR.
- To collect a swab, start by instituting droplet precautions (don a mask and goggles or eye shield). Then place a dacron or rayon swab on the floor of the patient's nasal cavity, advance the tip to the posterior nasopharynx, let it sit for 10 seconds, then rotate the swab, remove, and place in the specimen container. For additional details, visit https://www.cdc.gov/pertussis/clinical/diagnostic-testing/index.html.
- Treatment for either pertussis disease or exposure is the same. The preferred regimen is a five-day course of azithromycin. See CDC's guideline summary on the next page.

For further information see:
https://www.cdc.gov/pertussis/clinical/index.html

TABLE 4. Recommended antimicrobial treatment and postexposure prophylaxis for pertussis, by age group

	Primary agents			Alternate agent*
Age group	**Azithromycin**	**Erythromycin**	**Clarithromycin**	**TMP-SMZ**
<1 month	Recommended agent. 10 mg/kg per day in a single dose for 5 days (only limited safety data available.)	Not preferred. Erythromycin is associated with infantile hypertrophic pyloric stenosis. Use if azithromycin is unavailable; 40–50 mg/kg per day in 4 divided doses for 14 days	Not recommended (safety data unavailable)	Contraindicated for infants aged <2 months (risk for kernicterus)
1–5 months	10 mg/kg per day in a single dose for 5 days	40–50 mg/kg per day in 4 divided doses for 14 days	15 mg/kg per day in 2 divided doses for 7 days	Contraindicated at age <2 months. For infants aged ≥2 months, TMP 8 mg/kg per day, SMZ 40 mg/kg per day in 2 divided doses for 14 days
Infants (aged ≥6 months) and children	10 mg/kg in a single dose on day 1 then 5 mg/kg per day (maximum: 500 mg) on days 2–5	40–50 mg/kg per day (maximum: 2 g per day) in 4 divided doses for 14 days	15 mg/kg per day in 2 divided doses (maximum: 1 g per day) for 7 days	TMP 8 mg/kg per day, SMZ 40 mg/kg per day in 2 divided doses for 14 days
Adults	500 mg in a single dose on day 1 then 250 mg per day on days 2–5	2 g per day in 4 divided doses for 14 days	1 g per day in 2 divided doses for 7 days	TMP 320 mg per day, SMZ 1,600 mg per day in 2 divided doses for 14 days

* Trimethoprim sulfamethoxazole (TMP–SMZ) can be used as an alternative agent to macrolides in patients aged ≥2 months who are allergic to macrolides, who cannot tolerate macrolides, or who are infected with a rare macrolide-resistant strain of *Bordetella pertussis*.

Source: Centers for Disease Control and Prevention https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5414a1.htm