NEW MEXICO HEALTH ALERT NETWORK (HAN) ADVISORY—NOTICE

Increasing Number of Pertussis Cases in McKinley County
April 17, 2018

Currently, McKinley County has had 15 laboratory-confirmed pertussis cases with an additional 22 suspected cases. To date, cases have been primarily identified in school-aged children and close household contacts of school-aged children. The potential for additional cases in the coming weeks exists.

Providers are asked to:
• Consider pertussis in the differential diagnosis of those with compatible symptoms
• Report all suspected cases to the New Mexico Department of Health and/or local public health in your community
• Encourage vaccination with Tdap for all patients that are eligible
• Assure all children are up-to-date for age on the primary pertussis vaccine series

Special considerations:
Infants, particularly those less than 6 months of age, who contract pertussis are at increased risk of complications, hospitalization and death. Strategies to prevent pertussis transmission focus on preventing exposure and transmission to infants and infant caregivers. Therefore, the following groups should be prioritized for immediate vaccination with an age-appropriate pertussis-containing vaccine:
• All pregnant women during each pregnancy between the 27th and 36th weeks of pregnancy
• Anyone caring for or visiting an infant (<1 year of age)
• All health care personnel who provide services to pregnant women and infants
• All childcare personnel who work in settings that include infants

Early diagnosis and treatment of potential cases, and immediate reporting of cases to NMDOH for public health investigation and contact management, will also aid in limiting transmission. Healthcare providers should maintain a high index of suspicion for pertussis among their patients, especially infants and caregivers of infants.

Diagnosis:
Consider pertussis in:
• Infants presenting with observed or caregiver reported signs of respiratory distress, particularly apnea and/or cyanosis
• Persons of any age with unexplained prolonged cough (e.g., greater than 2 weeks)
• Persons with cough illness with paroxysms, whoops or post-tussive gagging/vomiting

Laboratory Diagnosis:
Polymerase chain reaction (PCR) assay performed on a nasopharyngeal (NP) swab sample is the confirmatory diagnostic test that is recommended by the New Mexico Department of Health. PCR can usually detect *Bordetella* DNA up to 4 weeks post-cough onset, and has been known to detect DNA even shortly after starting antibiotics. Healthcare providers should consult their laboratory for details of proper specimen handling and submission.

Healthcare providers who choose to have pertussis testing done through the New Mexico Department of Health Scientific Laboratory Division (SLD) should consult the SLD website for details of specimen handling and submission as well as charges that will apply: http://www.sld.state.nm.us/index.aspx.

### Treatment:

**Treatment should begin before laboratory results are available if pertussis is suspected.** Do not wait for test results before initiating treatment for suspected pertussis. Delays during a community-wide outbreak create more opportunity for transmission.

- Antimicrobials given during the catarrhal stage may reduce duration and severity of signs and symptoms; however, antimicrobials given during the paroxysmal stage may have no effect on the course of illness but are recommended to limit transmission to others
- Treatment of infants (<1 year of age) is recommended during the first 6 weeks of illness
- Treatment of persons ≥1 year of age is recommended during the first 3 weeks of illness

The Centers for Disease Control and Prevention (CDC) pertussis treatment guidelines can be accessed at: http://www.cdc.gov/pertussis/clinical/treatment.html.

### Post-exposure Prophylaxis (PEP)

Antibiotic PEP does play a role in the control of pertussis, particularly among household member contacts and other vulnerable close contacts, but there is no evidence that broad use of antibiotics (e.g., prophylaxis of an entire classroom of students where a pertussis case is identified) can contain a community-wide outbreak. PEP should be targeted. The following groups should be prioritized for antibiotic PEP:

1. All household contacts of a pertussis case: within families, secondary attack rates have been demonstrated to be high, even when household contacts are up-to-date with immunizations. Administration of antimicrobial prophylaxis to asymptomatic household contacts within 21 days of onset of cough in the index patient can prevent symptomatic infection.

2. High risk contacts: providing PEP to persons within 21 days of exposure to an infectious pertussis case-patient who are at high risk of severe illness. These include:
   - Infants and women in their third trimester of pregnancy—severe and sometimes fatal pertussis-related complications occur in infants aged < 12 months, especially among infants aged < 4 months. Women in their third trimester of pregnancy may be a source of pertussis to their newborn infant.
   - 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).
• Contacts who themselves have close contact with either infants aged < 12 months, pregnant women, or individuals with pre-existing health conditions at risk for severe illness or complications.
• All contacts in high risk settings that include infants aged < 12 months or women in the third trimester of pregnancy, which include but are not limited to, neonatal intensive care units, childcare settings, and maternity wards.

3. A broader use of PEP in limited closed settings, when the number of identified cases is small, and when a community-wide outbreak is not ongoing; however, when continued transmission of pertussis is evident, multiple rounds of antibiotics would not be recommended. Rather than repeating a course of antibiotics, contacts should be monitored for onset of signs and symptoms of pertussis for 21 days.

Vaccination
• DTaP (diphtheria, tetanus, acellular pertussis vaccine) - Children should get 5 doses at 2, 4, 6 and between 12-18 months and between 4-6 years
• Tdap (tetanus, diphtheria, pertussis) for children and adolescents who got DTaP or DTP (diphtheria, tetanus, pertussis) and have not yet gotten a booster dose of Td: the preferred age is 11-12 years prior to entry into middle school
• Adults who have not previously gotten a Tdap booster should get one, even if they have received a Td booster; there is no recommended minimal interval between a Td and receipt of a Tdap
• Pregnant women should receive Tdap during each pregnancy, preferably between the 27th and 36th weeks of gestation; however, Tdap at any time during pregnancy is acceptable
• Anyone who will be in contact with infants who has not received a dose of Tdap should receive one
• All healthcare workers who have not received Tdap should receive a dose as soon as possible

Infection Prevention during Patient Evaluation
• Segregate patients reporting cough illness in separate waiting areas
• Adhere to droplet precautions when evaluating patients
• A single patient room is preferred
• Spatial separation of > 3 feet and using curtains between patient beds in acute care settings
• Healthcare personnel should wear masks when evaluating coughing patients (a respirator is not necessary)
• Patients who must be transported outside of the room should wear a mask if tolerated
• Wear paper surgical mask, eye protection, and gloves during collection of nasopharyngeal (NP) specimens to prevent exposure to healthcare personnel

New Mexico Department of Health (NMDOH) is available for consultation on treatment, prophylaxis, and school exclusion recommendations. Additionally, please report any suspected
or confirmed cases to the Epidemiology and Response Division (ERD) at NMDOH at (505) 827-0006 (24/7/365).