



IN THIS ISSUE

Measles Case Detected

Mumps Outbreaks

Need for Rapid, Accurate Testing

Messenger

Measles Case: San Luis Obispo County

The County of San Luis Obispo Public Health Laboratory (SLO PHL) received two specimens collected from a local resident with a rash illness on the afternoon of Friday, May 4 and by midday Saturday had positive results on both specimens for measles. The laboratory used a molecular amplification test (real-time reverse transcription polymerase chain reaction, RT-PCR) developed at the CDC and the California State Public Health Laboratory.

At present, public health nurses are contacting over sixty individuals who were exposed to this case, and collecting serum specimens for Measles IgG antibody testing for those who do not know if they have been immunized or have no record of immunization. Unfortunately the measles virus can be transmitted fully four days before onset of symptoms, making the possibility for transmission likely (for those who have not been vaccinated) and extremely difficult to control.

The challenges to controlling a measles outbreak have been evident in a number of transmission events, including the Disneyland outbreak of 2015. From January 1 to April 21, the CDC reported 63 cases of measles in 16 states (Arkansas, California, Connecticut, Illinois, Indiana, Kansas, Louisiana, Michigan, Missouri, Nevada, New Jersey, New York, Oklahoma, Pennsylvania, Tennessee and Texas). International travelers should know that thousands of cases of measles have been recorded in recent years in Europe, the Philippines, and other destinations. Currently outbreaks are occurring in Venezuela, Spain, England, Taiwan, Vietnam and Pakistan.

Mumps Virus Outbreaks

As of April 21, 2018 the CDC reported 923 cases of mumps in 45 states, including California. Currently an outbreak of mumps with 17 cases is occurring at Western Illinois University. The nationwide mobility of university students and their frequency of international travel is an important factor to consider with regard to disease prevention and control. Like the measles virus, the mumps virus can be transmitted before the onset of illness—two days before the onset of the appearance of swollen salivary glands (parotitis), and five days after.

Need for Rapid and Accurate Testing for Public Health Intervention

Rapid and accurate molecular amplification test results allow public health officials to get a head start on stopping potential transmission. Referral to commercial laboratories may result in a significant delay in reporting of test results, as amplification tests to detect agents rarely seen in the community are often performed at a central laboratory for the commercial lab chain. The two to three day delay in provision of test results—as often occurs with specimens referred to commercial labs that may as far away as Minnesota or North Carolina—can magnify an outbreak by a huge margin.

Health care providers are being alerted to the SLOPHL's capability to rapidly and accurately provide laboratory diagnosis of a number of rash and vaccine-preventable diseases, using state-of-the-art molecular amplification testing.

Results are available within 5-6 hours of receipt of the specimen at the laboratory.

The SLOPHL can perform polymerase chain reaction (PCR) testing for measles, mumps and chickenpox (also called Varicella virus), as well as other pox virus infections and enterovirus infections.

If a patient presents with a rash illness and may be infected with one these agents:

1. **Call** the Public Health Department at 805-781-5500 (M-F 8 am– 5 pm) or 805-781-4553 (weekends and after hours) for instructions and authorization for testing at no charge.
2. **Collect specimens:** a nasopharyngeal swab in viral transport medium and a first stream urine specimen—refrigerated, not boric acid preserved. See detailed instructions for specimen collection and transport at slocounty.ca.gov/labtests.
3. **Transport** as quickly as possible to the Public Health Laboratory (2191 Johnson Avenue in San Luis Obispo). During regular business hours, call Central Courier at 800-427-9949, and press zero for dispatch for specimen transport. After hours, call 805-305-8188.

The Public Health Department appreciates your cooperation in the rapid detection of cases to prevent transmission in the community.

