

Date: 3 February 2015
To: Health Care Providers
From: Alvaro Garza, MD, MPH, Health Officer

**Please distribute to all
providers and relevant
medical staff in your office.**

HEALTH ADVISORY

Measles in California and San Joaquin County

Situation: We continue with a growing epidemic of measles in California with origins in the Disneyland park. As of 2 February 2015, 92 cases have been reported in state residents. Among these, 59 have a confirmed epidemiologic link to the Disney exposure. Patients range in age from 7 months to 70 years. In San Joaquin County, we have many measles-exposed cases requiring evaluation, testing, treatment, and/or quarantine and monitoring.

Background: Immunization is the best defense against measles, with 99 percent of persons developing immunity after two doses. It is important that anyone traveling to a country with endemic measles ensure they have completed 2 doses of MMR vaccine prior to travel. This includes travel to Europe, the Middle East, Asia, the Pacific, and Africa.

Actions Requested of Clinicians:

Suspect measles in a patient with fever and rash. Ask about measles immunization history, recent exposure to measles cases, international travel, or exposure to returning international travelers in the three weeks prior to illness; consider the diagnosis regardless of travel history.

Implement airborne precautions immediately for suspected cases. Mask and isolate patient in an airborne infection isolation room. Do not use a regular exam room for at least two hours after a suspected measles patient has left the room. Notify your facility's Infection Control Professional immediately.

Report suspect measles cases immediately to San Joaquin County Public Health Services (SJCPHS) by telephone (workday: 468-3822; after hours: 468-6000).

Test suspected cases. Collect blood, a throat or NP swab, and urine and HOLD for rapid testing by the Public Health Laboratory (PHL). Call SJCPHS for prior approval for measles testing by the PHL.

Advise patients with suspected measles to **stay home** until four days after rash onset and/or until cleared by SJCPHS to resume usual activities.

Vaccinate patients born in 1957 or later who have not received a documented dose of MMR, unless contraindicated.

Clinical Presentation:

Measles prodromal symptoms occur 8 to 12 days after exposure, beginning with a mild to moderate fever accompanied by cough, coryza, and conjunctivitis. Two to three days later, Koplik spots, tiny bluish-white lesions on a red center on the buccal mucosa, may appear. Fever may spike to >104°F. An erythematous, blotchy maculopapular rash appears around the same time, usually first on the face, along the hairline and behind the ears. This slightly itchy rash rapidly spreads downward to the chest and back and finally, to the thighs and feet. In approximately one week, the rash fades in the same sequence that it appeared.

Infection Control:

1. Mask suspected measles patient immediately and move the patient out of waiting area or other common area into an airborne infection isolation room if available, or in a private room with the door closed.
2. Only healthcare personnel with documentation of 2 doses of MMR vaccine or laboratory evidence of immunity should enter the patient's room.
3. Healthcare personnel entering the room should use respiratory protection (N95 respirator).
4. Close off the examination room for at least two hours after the patient leaves.
5. If patient is going to another health care facility notify them about the patient's suspect measles status prior to referral.
6. Instruct the patient and all exposed persons to inform all healthcare providers of the possibility of measles prior to entering a healthcare facility.
7. Make note of the staff and other patients who were in the area during the time the suspect measles patient was in the facility and for 2 hours after the suspect case left.

For additional guidance:

<http://www.cdph.ca.gov/HealthInfo/discond/Documents/CDPHHCFacilityCRecsforSuspectMeaslesPatients.pdf>

Test suspected cases:

Collect specimens for measles testing. Throat or nasopharyngeal swab and urine are the preferred diagnostic specimens. Call the SJCPHS (see above) to coordinate testing at the Public Health laboratory, rather than a commercial laboratory.

- Throat or nasopharyngeal swab; use a viral culturette and place into viral transport media.
- Collect 10-40 ml of urine in a sterile specimen container.
- Draw one 7 ml red top blood tube; spin down serum if possible. Capillary blood (approximately 3 capillary tubes to yield 100 µl of serum) may be used for young children.
- All specimens must be refrigerated and transported on cold pack to the Public Health Laboratory within 24 hours. (Must coordinate with Public Health in advance.)

Isolate suspected cases at home.

Provide patient with a supply of surgical masks. They should return home by private car, not public transportation, and accompanied only by someone with immunity to measles. Infected people are usually contagious for about eight days: four days before their rash starts and four days after. SJCPHS will identify contacts to confirmed cases to evaluate their measles immunity status and, if needed, intervene with post-exposure prophylaxis with MMR vaccine within 72 hours of exposure (or immune globulin intramuscular up to 6 days after exposure) and home quarantine for symptom watch. SJCPHS may request information from clinicians about exposed health care workers and the measles patient's family or friends.

Vaccinate susceptible patients

- **Routine:** Children get their first dose of MMR vaccine at 12 to 15 months. The second dose of MMR is administered before children start kindergarten at 4 to 6 years. Fully immunized adults (2 doses of MMR vaccine separated by at least 28 days) do not need boosters. Unimmunized adults should receive 1 dose of MMR vaccine. Anyone born after 1957 who has only received one dose of MMR vaccine may still be vulnerable to measles.
- **Travel:** Measles remains a common disease in many parts of the world, including Europe, the Middle East, Asia, the Pacific, and Africa. All unvaccinated people who are traveling outside of North or South America should receive 2 doses of MMR vaccine before they go if not fully immunized. Infants who are traveling can be vaccinated as young as six months of age (though they will need the two standard doses of MMR vaccine after their first birthday). For CDC Travel recommendations: wwwnc.cdc.gov/travel/content/Vaccinations.aspx

Additional Information:

- CDC "Guideline for Isolation Precautions"
<http://www.cdc.gov/hicpac/2007IP/2007isolationPrecautions.html>
- Information about measles and other vaccine-preventable diseases:
<http://www.getimmunizedca.org>
- California Department of Public Health:
<http://www.cdph.ca.gov/HealthInfo/discond/Pages/Measles.aspx>