



## Provide Alert: Measles Testing Guidance for Healthcare Providers January, 2017

With three confirmed cases of measles in Santa Barbara, Ventura, and San Luis Obispo Counties and a measles outbreak in Los Angeles, the Santa Barbara County Public Health Department is providing the following measles testing guidance. Your prompt recognition of measles and timely collection of specimens allows us to promptly initiate necessary public health interventions that will prevent the spread of this serious disease in our community.

### ACTIONS REQUESTED OF CLINICIANS:

1. **SUSPECT** measles in a patient with fever and rash. Ask about measles immunization history, international travel, exposure to international travelers, or other known exposure to measles in the 3 weeks prior to illness. If the patient meets clinical criteria for measles, consider the diagnosis regardless of travel history or immunization history.
2. **IMPLEMENT AIRBORNE PRECAUTIONS** immediately for suspected cases. Mask and isolate patient in an airborne infection isolation room if possible. Do not use a regular exam room for at least one hour after a suspected measles patient has left the room. Notify your facility's infection control professional immediately.
  - Healthcare workers who enter the room should have documented immunity and use a N95 respirator.
  - Providers seeing patients in an office or clinic setting should consider options such as arranging to see suspect measles cases after all other patients have left the office, or assessing patients outside of the building to avoid having a potentially infectious patient enter the office.
3. **REPORT** suspect measles cases immediately (24/7) by phone to the Santa Barbara County Disease Control Program at (805) 681-5280.
4. **TEST** suspect cases. Collect the following samples before the patient leaves your facility: a throat or NP swab, urine, and blood. Complete a Public Health Lab requisition Download form for submission found on PHL website: <http://cosb.countyofsb.org/phd/phlab.aspx?id=23540>. For instructions on specimen collection see PHL instructions below and CDPH website at: <https://www.cdph.ca.gov/HealthInfo/discond/Documents/CDPH-MeaslesClinicalGuidanceJanuary2016.pdf>
5. **ADVISE** patients with suspected measles to stay home with no visitors until at least 4 days after rash onset and/or until cleared by the public health department.

6. **CONFIRM STAFF IMMUNITY NOW** to avoid lost work and staff time.
- All healthcare workers (HCW) should have two documented doses of MMR or serologic evidence of measles immunity (positive IgG) regardless of their birthdate.
  - If exposed to measles, all HCW, children and school/child care staff without documented immunity will be removed from work/school/child care from day 7 (day 5 for HCW) after the first exposure to day 21 after the last exposure.

Measles is a highly contagious infectious disease caused by the measles (rubeola) virus. The prodromal symptoms (fever, malaise, cough, runny nose, conjunctivitis) usually begin 8-12 days after exposure with rash onset 2-4 days later, up to 21 days after exposure. The rash is maculopapular and usually begins around the ears and hairline and then spreads down to cover the face, trunk, arms, and legs. For more information visit:

[www.cdph.ca.gov/HealthInfo/discond/Pages/Measles.aspx](http://www.cdph.ca.gov/HealthInfo/discond/Pages/Measles.aspx)

## Collecting Specimens for Testing of Suspect Measles Cases

Remember to **report all suspect cases 24/7** to the Public Health Disease Control Program at: (805) 681-5280. Disease Control staff will coordinate the submission of laboratory specimens to the Santa Barbara County Public Health Lab.

Ideally, the following 3 specimens would be collected on any measles suspect: a serum specimen for measles antibody (IgM), a nasopharyngeal swab for PCR, and a urine specimen for PCR..

1. **Prepare throat or nasopharyngeal swab in viral transport media. A throat swab is preferred up to 9 days after rash onset.**
2. **Collect (if possible) a mid-stream urine specimen. 50-100 ml needed. Keep refrigerated until courier pick up.**
3. **Draw blood in red top tube, 2-5cc volume needed for testing. The specimens should be spun and the serum removed from the clot.** (*See Notes below regarding infants and recently vaccinated persons.*)
  - Collect an acute serum concurrently with respiratory or urine specimens.
  - If initial IgM testing is negative and measles is strongly suspected, a convalescent serum sample should be collected 2-4 weeks after symptom onset.
4. **Download lab requisition form for submission found on PHL website:**  
<http://cosb.countyofsb.org/phd/phlab.aspx?id=23540>
  - Complete all necessary fields and note the date of rash onset, be sure to include fax number and name of physician.
5. **Submit all specimens to the Public Health Lab on same day by 3:00 pm for processing, packing and shipping to State lab, Monday - Thursday**
6. **Results:**

Laboratory results for cases that are highly suspect for measles should be available within 24 hours of sample submission. Results will be called to PHL and lab staff will notify the Health Officer.

**Note:** In cases where collection of specimens may be difficult (e.g., infants), VRDL can test serum collected in capillary tubes, although this is not optimal. To obtain adequate sample volume, approximately 3 capillary tubes of blood should be collected. Capillary tubes should be capped and placed in another larger tube for protection before transport.

**Note:** In recently vaccinated persons (vaccine was administered 6-45 days prior to rash onset), neither IgM nor IgG responses can distinguish wildtype measles disease from a vaccination response. Measles PCR and genotyping would be necessary in this instance..

**We encourage submission of samples for both direct detection (PCR) and serological testing (IgM).**

For further details on laboratory testing for measles go to the CDPH website:

<http://www.cdph.ca.gov/HealthInfo/discond/Documents/CDPHMeaslesLabTesting2011-01.pdf>