

HEALTH ADVISORY – MAY 2011

Adapted from CDPH advisory, May 3, 2011

Eleven Measles Cases in California in 2011 Look for Signs of this Highly Contagious Disease

Since January 2011, eleven cases of measles have been reported in California and a nationwide increase in the numbers of reported measles cases has also been noted this year. A measles case in Orange County (OC) in March resulted in exposure of many OC residents. As in recent years, nearly all of the cases in California are known to have traveled recently to Europe or Asia or to have been in contact with international travelers (including via transit through U.S. international airports); some of the cases have been intentionally unvaccinated children. There are currently measles outbreaks in many European countries, including a large outbreak in France with over 9,000 cases in the past six months.

Immunize them before they go

Unvaccinated persons who are traveling to countries where measles is circulating should receive MMR vaccine before they go. Infants traveling to these countries can be vaccinated as young as six months of age (though they should also have the two standard doses of MMR after their first birthday).

Remember the diagnosis

The recent cases in California highlight the need for healthcare professionals to be vigilant about measles. ***Your expert eye and diagnostic skills can make a difference in stopping the spread of measles in your community:***

- Consider measles in patients of any age who have ***a fever AND a rash***. Fever can spike as high as 105°F. Measles rashes are red, blotchy and maculopapular and typically start on the hairline and face and then spread downwards to the rest of the body.
- Obtain a thorough history on such patients, including:
 - travel outside of North or South America or contact with international travelers (including transit through an international airport) in the prior three weeks; and
 - prior immunization for measles.

If you suspect your patient has measles, isolate (see next page) the patient immediately and report case to Orange County Public Health (714-834-8180) as soon as possible. The risk of measles transmission to others can be reduced if control measures are implemented.

- Collect specimens for measles testing*:
 - **Measles IgM and IgG**
 - Draw 1-2 ml blood in a red-top tube; spin down serum if possible. NOTE: capillary blood (approximately 3 capillary tubes to yield 100 µl of serum) may be collected in situations where venipuncture is not preferred, such as for children <1 year of age.
 - **Measles virus isolation and/or polymerase chain reaction (PCR)**
 - Preferred specimen: Obtain a nasopharyngeal swab or aspirate, or a throat swab; use a polyester or Dacron swab and place into viral transport media.
 - Acceptable but not preferred specimen: Collect 10-40 ml of urine in a sterile 50 ml centrifuge tube or urine specimen container.
 - *Orange County Public Health will facilitate testing of suspect measles cases once reported to Epidemiology at 714-834-8180. For questions on specimen collection and transport, call the Orange County Public Health Laboratory (OCPHL) at 714-834-8401. Please complete and send the OCPHL laboratory requisition form with all specimens.

Handling of patients with suspect measles:

1. Mask suspect measles patients immediately. If a surgical mask cannot be tolerated, other practical means of source containment should be implemented (e.g., place a blanket loosely over the heads of infants and young children suspected to have measles when they are in the waiting room or other common areas).
2. Do not allow suspect measles patients to remain in the waiting area or other common areas; isolate them immediately in an airborne infection isolation room if one is available. If such a room is not available, place patient in a private room with the door closed. For additional infection control information, please see the CDC "Guideline for Isolation Precautions" at:
<http://www.cdc.gov/hicpac/2007IP/2007isolationPrecautions.html>
3. If possible, allow only healthcare personnel with documentation of 2 doses of live measles vaccine or laboratory evidence of immunity (measles IgG positive) to enter the patient's room.
4. Regardless of immune status, all healthcare personnel entering the patient room should use respiratory protection at least as effective as an N95 respirator.
5. If possible, do not allow susceptible visitors in the patient room.
6. Do not use the examination room for at least two hours after the possibly infectious patient leaves.
7. If possible, schedule suspect measles patients at the end of the day.
8. Notify any location where the patient is being referred for additional clinical evaluation or laboratory testing about the patient's suspect measles status and do not refer suspect measles patients to other locations unless appropriate infection control measures can be implemented at those locations.
9. Instruct suspect measles patients and exposed persons to inform all healthcare providers of the possibility of measles prior to entering a healthcare facility so that appropriate infection control precautions can be implemented.
10. 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 two hours after they left. If measles is confirmed in the suspect case, exposed people will need to be assessed for measles immunity.

More background on measles activity

The last large outbreak of measles in the U.S. occurred during 1989-1991, with 17,000 cases of measles and 70 deaths in California. Efforts to increase immunization rates in the 1990s were successful and endemic transmission of measles in the U.S. was eliminated in 2000. In contrast, measles is now widespread in Europe because immunization rates have declined below the 90-95% rate needed to interrupt transmission. There are currently measles outbreaks in many European countries, including a large outbreak in France. Over 9,000 measles cases were reported in France between October 1, 2010 and the end of March 2011; most cases have been teenagers. In 2010, there were two deaths (one from encephalitis and one from pneumonia) and eight patients with neurological complications in France. In 2011, there have been two deaths due to pneumonia and 13 cases with neurological complications (12 cases of encephalitis and one case of myelitis and Guillain-Barre syndrome). Measles is currently circulating in most regions of the world outside of North and South America.

For questions about measles, see www.ohealthinfo.com/epi/measles or call Orange County Public Health Epidemiology at 714-834-8180.