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Please copy and distribute to ALL physicians at your location.

HEALTH ADVISORY

Four Measles Cases in Ventura County

Look for Signs of this Highly Contagious Illness

There are four confirmed cases of measles with onset after December 2016 that have been reported to Ventura County Public Health. All four cases so far have been unvaccinated, and have been associated with our orthodox Jewish community. Orthodox Jews are not a closed community so cases may appear in people outside of the faith. Neither are they anti-immunization as a group. As in the general population, certain families may choose to not vaccinate. Measles is one of the most contagious diseases known to man with up to 90 percent of susceptibles infected upon exposure. Measles is spread by both direct and indirect transmission (respiratory droplets) and may be transmitted by aerosol for up to 2 hours after the symptomatic person has left the room.

We recommend that you prescreen all patient calls for rash with fever, and immediately mask and isolate patients with acute febrile rash illnesses. Remember to consider measles in patients of any age presenting with rash illness with fever. Those with measles usually have at least 1 or 2 of the “3Cs” – cough, coryza, and conjunctivitis. The measles rash generally starts on the head or neck.

If you suspect measles please mask and isolate the patient immediately. Procure good contact information, and stress the importance of going home and staying home. Aside from submitting a CMR (Confidential Morbidity Report) please call the Ventura County Public Health Communicable Disease Office at (805) 981-5201. You may share this number with the patient as well in case he has any questions or concerns.

Measles symptoms typically include: Fever, dry cough, runny nose, sore throat, conjunctivitis, Koplik’s spots, skin rash

Infection in sequential stages over 2 – 3 weeks:

- 1) Incubation 8 – 14 days. The average interval between the appearance of rash in the index case and subsequent cases is 14 days with a range of 7 to 21 days.
- 2) Nonspecific signs and symptoms for 2 – 3 days: mild to moderate fever, with persistent cough runny nose, inflamed eyes, and sore throat
- 3) Acute illness and rash: small red spots, some slightly raised, face breaks out first particularly behind the ears and along the hairline. Over the next few days the rash spreads down the arms and trunk, then over the thighs, lower legs and feet. Fever rises sharply, often as high as 104 – 105.8 F (40-41 C). The measles rash fades gradually, starting with the face and last from thighs and feet.
- 4) Communicable period LASTS ABOUT 8 DAYS – Patients are contagious from four days before the rash to four days after the appearance of the rash.

Vaccine recommendations

- CDC recommends all children get two doses of MMR vaccine, starting with the first dose at 12 through 15 months of age, and the second dose at 4 through 6 years of age. Children can receive the second dose earlier as long as it is at least 28 days after the first dose.

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- Students at post-high school educational institutions who do not have [evidence of immunity](#) against measles and adults through 49 years of age need two doses of MMR vaccine separated by at least 28 days.
- Adults 50 years and older who do not have [evidence of immunity](#) against measles need not have the MMR unless it is required by their employment or they have been exposed to a case of measles.
- MMR should not be given to pregnant women, those with a significant immune deficiency or those with HIV who have a CD4 cell count less than 200.

[Immunize them before travel](#)

Unvaccinated Californians 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 vaccine after their first birthday).

[Keep the diagnosis in mind](#)

The recent cases in Ventura County highlight the need for healthcare professionals to be vigilant about measles. ***Your expert eye, diagnostic skills, and prompt reporting of suspect measles cases to public health can make a difference in stopping the spread of this highly contagious disease in your community:***

- Consider measles in patients of any age who have ***a fever AND a rash*** regardless of their travel history. 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 and or other international tourist attractions) in the prior three weeks. However, since measles importations have occurred throughout California, undetected community transmission cannot be ruled out; and
 - Prior immunization for measles.
- If you suspect your patient may have measles, isolate the patient immediately (see below) and alert the health department as soon as possible. The risk of measles transmission to others and large contact investigations can be reduced if control measures are implemented immediately.
 - Post-exposure prophylaxis can be administered to contacts within 72 hours of exposure (MMR vaccine) or up to 6 days after exposure (immune globulin - intramuscular). Please consult with your local health jurisdiction regarding appropriate administration.
- Collect specimens for measles testing:
 - Draw 5 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.
 - Obtain a throat or nasopharyngeal swab; use a viral culturette and place into viral transport media.
 - Collect 10-40 ml of urine in a sterile 50 ml centrifuge tube or urine specimen container.
 - Please arrange for measles testing at the public health laboratory (805 981-5131).

[If measles is suspected](#)

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: <https://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.

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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 one hour after the suspect case left. If measles is confirmed in the suspect case, exposed people will need to be assessed for measles immunity.

<http://tinyurl.com/lfpk3yn>

This bulletin is intended to improve the public health in our county by keeping physicians and nurses informed of noteworthy diagnoses, disease trends and other events of medical interest. Another goal of a public health department is to educate. We hope that you will use this information to increase your awareness. Please allow us to continue in our role of speaking to the press so that we may maximize the educational message to the benefit of all citizens of Ventura County.

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