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GAVIN NEWSOM
Governor

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TO: All Facilities

SUBJECT: Recommendations for Measles Case Identification, Measles Infection Control, and Measles Case and Contact Investigations

All Facilities Letter (AFL) Summary

This AFL informs facilities of the increase of reported measles cases in California and provides recommendations and resources to assist with measles case identification, infection control, and case and contact investigations.

Background

The California Department of Public Health (CDPH) has received 21 reported cases of measles this year. These cases have occurred in 10 California counties compared to the 8 reported cases received at this time in 2018. This alert is intended to increase awareness of measles among healthcare providers and to summarize clinical guidance.

Measles is widespread in most of the world, with large outbreaks currently occurring in the Philippines, Ukraine, Israel, and in several countries in Western Europe. These overseas measles outbreaks have led to imported cases and outbreaks in the United States. The reported cases of measles have identified overseas travel to the Philippines, Ukraine, Thailand, and India. In California, two outbreaks of measles (defined as ≥ 3 linked cases) have occurred in 2019, both of which have been linked to infected travelers returning to California from the Philippines, followed by local transmission.

Prodromal symptoms of measles typically begin 8-12 days after exposure (day 0) and rash onset is typically 14 days (range 7-21 days) after exposure. Persons with measles are infectious during the first four days prior through the four days after the onset of the rash.

Failure to promptly identify and appropriately isolate measles cases has led to the investigation of hundreds of healthcare contacts this year. Measles transmission has occurred in emergency departments and other healthcare settings, including transmission to one healthcare worker.



CDPH Recommendations for Measles

In response to the increase in measles cases in 2019, CDPH recommends that healthcare professionals be vigilant about measles and use the following guidance:

- 1. Recommend immunization with the Measles, Mumps, and Rubella (MMR) vaccine for infants 6-11 months of age who will be traveling internationally.**
 - The 6-11 month MMR vaccine will not count as a valid dose and the infant will require revaccination at 12 months of age.

- 2. Recognize and report suspect measles patients.**
 - Consider measles in patients of any age who have a fever **and** a rash regardless of their immunization history. 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 Central America or contact with international travelers (including domestic travel through an international airport or visits to international tourist attractions in the US) in the prior three weeks; however, since measles importations have occurred throughout California, undetected community transmission cannot be ruled out.
 - Prior measles immunization or history of measles disease; please note that although documentation of two doses of MMR vaccine or a prior positive measles Immunoglobulin G test result makes the diagnosis of measles less likely, measles can still occur in such persons.

- 3. Isolate suspect measles patients immediately and alert the [local health department](#) immediately by telephone.**
 - The risk of measles transmission to others and large contact investigations can be reduced when control measures are implemented immediately.
 - Post exposure prophylaxis (MMR vaccine within 72 hours of exposure or immune globulin within six days of exposure) can be administered to susceptible contacts. Consult the local health jurisdiction regarding appropriate administration.

- 4. In consultation with the [local health department](#), collect specimens from suspect measles patients for measles testing in a public health laboratory.**
 - Polymerase chain reaction (PCR) testing of a throat swab and urine specimen by a public health laboratory is the gold standard for diagnosis of acute measles infection. Measles Immunoglobulin M testing at commercial laboratories is frequently false positive and is not recommended. For PCR testing:
 - Obtain a throat swab; use a viral culturette and place into viral transport media.
 - Collect 10-50 ml urine in a sterile urine specimen container or centrifuge tube.

5. Use appropriate infection control measures for suspect measles patients:

1) If patient calls facility before arrival and measles is suspected and an airborne infection isolation (negative pressure) room is not available:

- a. Refer patient to facility with airborne infection isolation room, if possible.
- b. If referral elsewhere is not possible and medical evaluation is necessary but not urgent, try to schedule the patient at the end of the day.
- c. If measles testing is indicated, but patient does not require full medical evaluation, collection of a throat swab may for PCR testing may be considered while patient is in the car or otherwise outside of the facility. A urine specimen may be brought from home.
- d. Ask patient to alert you before entering the facility and provide a surgical mask to the patient before entry. If patient cannot wear surgical mask, other practical means of source containment should be implemented, for example, place a blanket loosely over the heads of infants and young children suspected to have measles as they transit through common areas.
- e. Bypass the waiting room if possible, and do not allow patient to remain in the waiting area or other common areas.
- f. Immediately place patient in a private room and keep the door closed.
- g. Evaluate patient as quickly as possible and discharge patient home or transfer the patient to a facility with an airborne infection isolation room as soon as feasible.
- h. Depending on the number of air changes per hour (see information in the link below), do not use the examination room for up to one hour after the possibly infectious patient leaves.

2) If patient does not call ahead before entering facility and measles is suspected and an airborne infection isolation room is not available:

- a. Mask the patient immediately. If patient cannot wear a surgical mask, other practical means of source containment should be implemented. For example, place a blanket loosely over the heads of infants and young children suspected to have measles while they are transiting through common areas.
- b. Bypass the waiting room if possible, and do not allow patient to remain in the waiting area or other common areas.
- c. Immediately place patient in a private room and keep the door closed.
- d. Evaluate patient as quickly as possible and discharge patient home or transfer the patient to a facility with an airborne infection isolation room as soon as feasible.
- e. Depending on the number of air changes per hour (see information in the link below), do not use the examination room for up to one hour after the possibly infectious patient leaves.

3) If measles is suspected and the facility has an airborne infection isolation room:

- a. Mask the patient immediately. If patient cannot wear a surgical mask,

other practical means of source containment should be implemented, for example, place a blanket loosely over the heads of infants and young children suspected to have measles while they are transiting through common areas.

- b. Bypass the waiting room if possible, and do not allow patient to remain in the waiting area or other common areas.
- c. Immediately place patient in airborne infection isolation room.
- d. Patient may remove mask when in the airborne infection isolation room, but should put the mask back on again prior to leaving the room when exiting the facility or during transit to another part of the facility.

4) For all suspect measles cases:

- a. Allow only healthcare personnel with documentation of two doses of live measles vaccine or laboratory evidence of immunity (measles Immunoglobulin G positive) to enter the patient's room, if possible.
- b. Regardless of immune status, all healthcare personnel entering the patient room should use respiratory protection at least as effective as an N95 respirator per Cal OSHA requirements.
- c. Do not allow susceptible people into the patient room, if possible.
- d. 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.
- e. 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.
- f. If patient was not immediately placed in an airborne infection isolation room, 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 measles patient left. If measles is confirmed in the suspect measles patient, potentially exposed people will need to be assessed for measles immunity.

For additional infection control information, please see the CDC "[Guideline for Isolation Precautions.](#)"

6. Assist local health departments with contact investigations for confirmed measles cases.

If a patient who was seen in your facility is confirmed as a measles case, the local health department will follow-up with you regarding a contact investigation.

Patients, visitors, and staff who were in the same area as the measles patient during the time the patient was in your facility and for up to one hour after the patient left the area are considered possibly exposed unless the patient was immediately

placed in an airborne infection isolation room, even if the measles patient was masked. Facilities are expected to:

- Identify potentially exposed patients and staff (including reception and other non-clinical staff).
- Provide a line list of exposed patients who are not currently hospitalized to the local health jurisdiction.
 - Include: name, most recent contact information (phone number(s), home address, e-mail address), sex, date of birth, occupation (if known), and name of any primary care or OB/GYN provider on file.
 - Determine if there are high-risk persons (pregnant women, immunocompromised persons, infants <15 months of age, and anyone who may be a healthcare worker) among the exposed patients and notify the local health jurisdiction immediately if such patients are identified.
- Assess measles immunity in staff (see table below) and immunity and high-risk status in exposed patients who are still hospitalized. For additional information on follow-up of persons exposed to measles, including immunity assessment and post-exposure prophylaxis, please refer to the [CDPH Measles Investigation Quicksheet](#).
 - Healthcare personnel in your facility should have had measles immunity assessed and documented per the [Cal OSHA Aerosol-Transmissible Disease Standards](#).

Category	Immunoglobulin G testing	Post-exposure prophylaxis	HCW work exclusion
Two documented doses of MMR vaccine (~1% will be susceptible)	No	No	No
Measles Immunoglobulin G positive (<1% will be susceptible)	No	No	No
Have 1 documented dose of MMR vaccine (5% will be susceptible) or no documented doses of MMR	Yes	If found to be susceptible	Yes
Measles Immunoglobulin G negative or known to be unvaccinated		Yes	Yes
Received MMR vaccine <72 hours of exposure			Yes
Received immune globulin ≤6 days of exposure			Yes

- Assist local health departments with contacting exposed patients and their families to alert them of the exposure, assess measles immunity, and assure follow-up testing and post-exposure prophylaxis, as needed.
- Respond to requests from local health departments for additional information, as needed.

Additional Resources

- [CDPH Measles Guidance](#)
- [Local Health Department Contact Information](#) (PDF)
- [Guidance from CDC for Healthcare Professionals](#)
- [Clinic Front Desk Alert Poster](#) (PDF)

Sincerely,

Original signed by Heidi W. Steinecker

Heidi W. Steinecker
Deputy Director