

# AHCA/NCAL Infection Preventionist Hot Topic Brief

## Measles Risk in the Long-Term Care Setting

### Focal Problem or Issue

Measles is a highly infectious disease that is preventable with vaccination. We have recently seen an increase in measles outbreaks in the US. The [CDC alert issued on January 25, 2024](#), contained specific recommendations for healthcare settings regarding these types of outbreaks. The risk of being exposed to individuals who are contagious with measles in a long-term care setting is less likely than in health clinics or schools due to the differences in populations served. However, there is potential of exposure and spread in any setting when susceptible individuals are exposed to those who are contagious, so by applying the information contained in this Brief, the LTC Infection Preventionist (IP) can reduce the risk of measles transmission in their facility.

### The LTC IP can assure that their facility is prepared by verifying:

- The HCP at the facility understand that the goal for measles prevention including:
  - Everyone being immune to measles which includes having the disease as a child or being fully vaccinated against measles unless contraindicated.
  - If there is a suspected case of measles among healthcare workers or a LTC resident, that it is quickly identified and appropriate infection prevention precautions are taken (e.g., use of Airborne Precautions for residents or furlough for staff/personnel) to limit potential for transmission.
- Their facility has processes in place to recognize signs and symptoms of measles including recognizing the red or reddish-brown maculopapular rash.
- An effective process is in place to check measles immunity status for residents as well as for all healthcare workers (HCW).
- Those responsible for resident health and for HCP occupational health requirements understand specifically how to verify immunity to measles in residents and HCP.
- Their facility has processes in place to recognize signs and symptoms of measles including recognizing a maculopapular rash that begins with the hairline spreading downwards and outwards. Staff are aware of the need to inform the Occupational Health or IP regarding any staff with signs or symptoms of measles themselves or in their immediate family.
- A process for contacting and notifying the local health department regarding suspected cases among healthcare workers or residents is in place and ready for activation when needed.

## Background and Scope

Measles, also known as “rubeola,” is one of the most highly infectious diseases that can be prevented with vaccination. Measles spreads when a person with the infection coughs or sneezes and exposes a susceptible individual to the measles virus which can travel through the air. The virus can linger in the air for extended periods of time and remains infectious to susceptible individuals in the vicinity. A person who is susceptible can contract measles simply by walking into a room and breathing the air an hour or even longer after a person with an active case of measles has been treated in the same room.

## Assessing for Evidence of Immunity

According to CDC, acceptable presumptive evidence of immunity against measles includes **at least ONE** of the following:

- Written documentation of vaccination with 2 doses of measles virus-containing vaccine (the first dose administered at age  $\geq$ 12 months; the second dose no earlier than 28 days after the first dose); OR
- Laboratory evidence of immunity (measles immunoglobulin G [IgG] in serum; equivocal results are considered negative); OR
- Laboratory confirmation of disease; OR
- Birth before 1957.
  - Consider vaccinating HCP born before 1957 who do not have other evidence of immunity to measles.

Two doses of measles virus-containing vaccine are recommended for all HCP, regardless of year of birth.

[Recommendations on immunization](#) of HCP for measles are maintained by CDC and ACIP.

### What may contribute to lack of measles immunity or measles transmission in LTC settings?

- Inadequate process at the facility for assessing each resident and HCP for immunity status and taking appropriate measures when measles non-immune individuals are identified
- HCP and residents may have received less than the number of measles doses of vaccine as noted above in “assessing for evidence of immunity” which places them at risk of contracting measles and exposing other non-immune people to the disease
- Failure of immunized HCP to follow Standard and Airborne Precautions when caring for people with measles.
- Inadequate facility policies on vaccinations for healthcare personnel. Occupational Health Programs should have specific policies in place that include immunity assessment and vaccination requirements for HCP for vaccine preventable communicable diseases including measles, mumps, rubella, pertussis, varicella, influenza and Covid-19 and others per state or national recommendations.
- Failure to rapidly identify and isolate someone with suspected measles infection.

## Measles Clinical Features

### Incubation period 11–12 days

- Exposure to rash onset averages 14 days (range 7–21 days)

### Prodrome lasts 2–4 days

- Stepwise increase in fever to 103–105° F
- Cough, coryza (i.e. runny nose) and conjunctivitis
- Koplik spots (often seen in the prodromal or beginning stages, one of the signs of the onset of measles. Koplik spots are classically described as being bright red spots with white or bluish-white centers that may resemble grains of sand.)

### Rash (maculopapular)

- Persists 5–6 days
- Begins at hairline, then involves face and upper neck
- Proceeds downward and outward to hands and feet
- Severe areas peel off in scales
- Fades in order of appearance



### People at high risk for severe illness and complications from measles include\*:

- Infants and children aged <5 years
- Adults aged >20 years
- Pregnant women
- People with compromised immune systems, such as from leukemia and HIV infection

\*[Measles Complications | CDC](#)

## Key Reminders for Infection Prevention and Control in Healthcare Settings

- Residents with signs and symptoms of measles (e.g. febrile rash) should be placed in Airborne Precautions upon suspicion of infectious illness as noted in [CDC recommendations](#).
- Visitors and staff suspected of having measles should not be permitted in the healthcare facility until they are no longer considered contagious per CDC criteria or guidance from your local or state health agency.
  - If there are people with measles in your community, consider screening visitors for signs and symptoms of measles before entering the facility.
  - Visitors without acceptable presumptive evidence of immunity should not enter the room of a patient with known or suspected measles.

## Key Reminders for Infection Prevention and Control in Healthcare Settings (cont.)

- Limit visitors to patients with known or suspected measles to those who are necessary for the patient's well-being and care.
- If HCP with presumptive evidence of immunity to measles are exposed to measles in their home (i.e., they live with a child that has measles), they should not be restricted from work, should not receive post-exposure prophylaxis, but should monitor for symptoms until 21 days after the last exposure (i.e., the end of the cases infectious period).
- When transporting suspected residents or patients with suspected or confirmed measles outside of an airborne isolation precautions room, place a standard surgical mask (not N-95 respirator) over their mouth/nose to prevent the spread of measles.
  - This should only be for necessary transport, ideally with a route that is coordinated to limit potential for exposure.
  - Example: following a back route or semi-private hall and not through major traffic areas
- Refer to the CDC's [Interim Infection Prevention and Control Recommendations for Measles in Healthcare Settings](#) for more information

### Resources/Sources

1. ["Stay Alert for Measles Cases" COCA Now; January 25, 2024](#)
2. [Interim Infection Prevention and Control Recommendations for Measles in Healthcare Settings](#)
3. [CDC Pink Book](#)
4. [CDC Measles \(Rubeola\)](#)
5. [Immunization of Health-Care Personnel Recommendations of the Advisory Committee on Immunization Practices \(ACIP\) MMWR November 21, 2011](#)

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