



MEASLES INVESTIGATION QUICKSHEET

Measles infectious period

- From four days before rash onset through four days after rash onset (rash onset date is day 0).

Measles exposure

- Sharing the same airspace with a measles case during their infectious period (during the 4 days prior through the 4 days after their rash onset), e.g., same classroom, home, clinic waiting room, airplane etc., or were in these areas up to 2 hours after the infectious person left the area.

Measles incubation period

- The period from exposure to onset of prodrome is generally 10–12 days. The average interval between the appearance of rash in the index case and in subsequent cases is 14 days (range 7-21 days).

The symptoms of measles infection

- Measles typically begins with a fever that increases in a stepwise fashion.
- Accompanied by cough, coryza, and conjunctivitis (3 C's).
- Two to three days later, Koplik's spots, a characteristic sign of measles, may appear.
- A red blotchy maculopapular rash appears, usually first on the face, along the hairline and behind the ears. This rash rapidly spreads downward to the chest and back and finally, to the thighs and feet. In approximately one week, the rash will fade in the same sequence that it appeared.

Measles laboratory Testing

- NP and throat swab for PCR-Detection of viral RNA by reverse transcription polymerase chain reaction (RT-PCR)
- Serum- measles IgM and IgG antibody
- All specimens **need** to be sent to the Wisconsin State Lab of Hygiene for testing. For questions contact the State Lab- 800-862-1013.

*Capillary blood (finger or heel stick) can be used for serologic testing if venous blood cannot be obtained.

Assessing Suspect Measles Cases

- Consider measles in patients of any age who have a fever AND a rash. In measles cases there must be some fever and the rash must start on the head or neck.
- Patients with measles usually have at least 1 or 2 of the "3 Cs" – cough, coryza and conjunctivitis.
- **If measles is being considered, please contact your local health department immediately.**
Winnebago County Health Department: 920-232-3000

High –risk contact

- Pregnant women –(referred to their OB for screening and management)
- Immunosuppressed individuals
- Infants <12 months of age

Quarantine of Measles Contact

- If quarantine implemented, it should begin on day 7 (CDC recommends day 5 for healthcare workers) after first exposure through day 21 after last exposure (day of exposure is day 0).
- When there are multiple exposure dates, exclusion or quarantine should begin at day 7 after **first** exposure and is recommended through day 21 of the last exposure
- If symptoms consistent with measles develop, patient should be immediately isolated through day 4 after rash onset (day of rash onset is day 0). Exposed people should be instructed to isolate themselves and notify their local health department if symptoms occur.
- Individuals who receive Immunoglobulin should monitor for symptoms an additional 7 days after coming out of isolation for a total of 28 days.

TABLE RECOMMEND FOLLOW-UP OF MEASLES CONTACTS

Low -risk Individuals: Measles immunity assessment for contacts	IgG testing	MMR PEP	IG PEP	Quarantine if no PEP ¹	Exclusion ²	Symptom watch
Two documented MMR vaccines (1% will be susceptible)	No	No	No	No	No	Passive
Known to be measles IgG positive (immune) (<1% will be susceptible)	No	No	No	No	No	Passive
Born before 1957 (5% will be susceptible)	If desired	If desired	No	No	Yes	Passive
Have 1 documented MMR vaccine (5% will be susceptible)	If desired	If desired	No	No	Yes	Passive
Self-report hx. of measles disease	Yes	Yes	No	Yes	Yes	Active
Measles IgG negative or unvaccinated		Yes		Yes	Yes	Active
Unknown or no documentation of vaccination or immune status.	Yes	Yes	No	Yes	Yes	Active
High-risk Individuals :Measles immunity assessment for contacts (immunocompromised, <12 months of age, pregnant, healthcare worker or household contact)	IgG testing	MMR PEP	IG PEP	Quarantine if no PEP ¹	Exclusion ²	Symptom watch
Unvaccinated infants <12 months of age*	No	No	Yes	Yes	Yes	Active
Pregnant woman without 2 documented MMR's or serologic evidence of immunity.	Yes	No	Yes	Yes	Yes	Active
Severely immunocompromised people**	No	No	Yes	contact LHD	Yes	Active
Household or other contact with prolonged exposure without 2 documented MMR's or serologic evidence of immunity.	Yes	Yes	Yes, MMR preferred	Yes	Yes	Active

PEP- post exposure prophylaxis

¹ Implement quarantine from day 7 after **first** exposure until day 21 after **last** exposure unless contact is IgG positive or has 2 MMR's; or if contact has received PEP: an MMR vaccine received <72 hours after First exposure, or IG ≤ 6 days of FIRST exposure. Healthcare personnel must be excluded from day 5 after **first** exposure until day-21 after **last** exposure; if they receive a 2nd MMR within 72 hrs. of first exposure or if they are IgG positive no exclusion needed.

² Exclude from high-risk settings (childcare and healthcare facilities) from day 7 after FIRST exposure until day 21 after LAST exposure (Healthcare exclusion is day 5-21) unless contact is IgG positive or has 2 MMR's.

*Infants under 12 months of age should receive intramuscular immunoglobulin (**IGIM**). Infants 6- 11 months, MMR vaccine can be administered in place of IG if given within 72 hours of exposure. If beyond 72 hours administer IGIM.

Severely immunocompromised patients should receive immunoglobulin intravenously (IGIV**) regardless of immunologic or vaccination status.

For more information see the [DHS guidance document](#).