

Assessment Tool for Healthcare Personnel Exposed to Measles

The purpose of this assessment tool is to assist public health, infection prevention specialists, and healthcare office/clinic staff in evaluating the exposure of healthcare personnel (HCP) in a healthcare setting. These are general rules and may be updated as additional information becomes available.

Infectious Period

Patients with measles are considered **infectious** from 4 days before through 4 days after rash onset. Rash onset counts as day zero.

Exposure Definition

In healthcare settings, persons potentially exposed to measles include patients, visitors and HCP who are not wearing recommended respiratory protection (regardless of presumptive evidence of measles immunity status) who are:

- ▶ In a shared air space with an infectious measles patient at the same time, or
- ▶ In a shared air space vacated by an infectious measles patient within the prior 2 hours

Presumptive Evidence of Measles Immunity (PEI) for Healthcare Personnel

All persons who work in healthcare facilities should have presumptive evidence of immunity to measles. Presumptive evidence of immunity to measles for HCP includes any of the following:

- ▶ **Written documentation of vaccination** with 2 doses of live measles or MMR vaccine administered at least 28 days apart
 - The first dose of measles-containing vaccine should be administered on or after the first birthday; the second dose should be administered no earlier than 28 days after the first dose
 - Although two doses of MMR vaccine are required for healthcare providers to meet the PEI definition, a provider who has received at least one dose may continue working after an exposure instead of being excluded.
- ▶ **Laboratory evidence of immunity:** Positive measles immunoglobulin (IgG) in serum; equivocal results should be considered negative.
- ▶ **Laboratory confirmation of disease**

Postexposure Prophylaxis Recommendations

Information regarding [postexposure prophylaxis for measles](#) can be found on the Iowa HHS website.

An HCP who does not have evidence of presumptive immunity should be offered the MMR vaccine if they are not pregnant or severely immunocompromised. Serologic screening of HCP during an outbreak to determine measles immunity before vaccination is not recommended. The reason is that preventing measles transmission requires the rapid vaccination of HCP without presumptive evidence of immunity, which can be impeded by the need to screen, wait for results and then contact and vaccinate susceptible persons. Results from serologic testing, if performed, can inform on the need for the second MMR vaccine dose.

Infection Prevention and Control Recommendations

HCP should adhere to Standard and Airborne Precautions as recommended by [CDC guidance](#) when caring for patients with known or suspected measles. Regardless of their immune status, all exposed HCP should immediately report [any signs or symptoms of measles](#) (e.g., fever, rash, cough, runny nose, red/watery eyes) during the incubation period from 5 to 21 days after exposure to a possible measles case. Reports should be made to the occupational health program (if available) or the local health department. Personnel who develop measles should be immediately relieved from all patient contact and excluded from work for four days after the rash onset, they can return on day five. The date of rash onset is considered Day 0.

Exclusion Assessment

Use Table 1. to determine monitoring, self-quarantine and exclusion from work recommendations for exposed HCP.

Table 1. Assessment of Healthcare Personnel Exposed to Measles

Immunity Status	PEP received	Monitoring	Self-Quarantine	Exclusion from Work
Presumptive Evidence of Immunity	N/A	Monitor for signs and symptoms for 21 days after last exposure.	Not recommended	Not recommended
No Presumptive Evidence of Immunity	Received 1 dose of MMR vaccine prior to exposure with 2 nd dose within 72 hours of exposure	Monitor for signs and symptoms for 21 days after last exposure	Not recommended	Not recommended
	Received 0 doses of MMR vaccine prior to exposure with 1 st dose within 72 hours of exposure	Monitor for signs and symptoms for 21 days after last exposure.	Not recommended	Relieve from patient contact immediately. Exclude from work from the 5 th day after the first exposure through the 21 st day after the last exposure.
	Received 0 doses of MMR vaccine prior to exposure and did not receive MMR vaccine within 72 hours	Monitor for signs and symptoms for 21 days after last exposure	Quarantine for 21 days after last exposure	
	Received immune globulin (IG) within 6 days of exposure	Monitor for signs and symptoms for 28 days after last exposure	Quarantine for 21 days	

Sources

[Interim Infection Prevention & Control Recommendations for Measles in Healthcare Settings](#)

https://cdc.gov/infection-control/hcp/measles/?CDC_AAref_Val=https://www.cdc.gov/infectioncontrol/guidelines/measles/index.html

[CDC. Manual for the Surveillance of Vaccine-Preventable Diseases. Chapter 7: Measles](#)

<https://www.cdc.gov/surv-manual/php/table-of-contents/chapter-7-measles.html>