

Measles: Infection Prevention and Control Information for Health Care Workers

Revised: September 9, 2025.

Infectious agent	Measles virus, a member of the genus Morbillivirus of the family Paramyxoviridae. ¹
Clinical presentation	Acute viral respiratory illness characterized by a prodrome of fever, cough, coryza (runny nose), and conjunctivitis; a pathognomonic enanthema (Koplik spots); followed by a maculopapular rash (may not be present in some immune compromised or partially immune patients). ^{2,3}
Reservoir and Source	Humans.
Surveillance	Refer to BC Centre for Disease Control (BCCDC)'s Measles page and Public Health Agency of Canada's Measles and Rubella Weekly Monitoring Reports .
Transmission	Highly transmissible infectious disease spread through the airborne route when an infected person breathes, coughs, sneezes or talks and through direct contact with respiratory secretions from the nose and throat, or less commonly through fomites contaminated with respiratory secretions. ¹⁻⁴
Incubation	Ten (10) days with a range of 7 to 18 days from exposure to onset of prodromal symptoms, with onset of rash at approximately 14 days (rarely up to 9 to 21 days). ^{1,2}
Communicable period	One day before prodromal period (usually about 4 days before rash onset) to 4 days after rash onset. ^{1,5} The airborne infectious viral particles can persist for up to 2 hours after an infectious person leaves the area, depending on the number of air exchanges. ^{2,3}
Case definition	Refer to BCCDC's Measles Case Definitions for confirmed, probable, and suspected cases.
Laboratory testing	Refer to BCCDC's Laboratory Services, Laboratory Memos & Communications , and Communicable Disease Control Manual measles section, for information on laboratory testing.
Notification	<ul style="list-style-type: none"> As soon as possible, notify and consult with your infection prevention and control (IPC) professional/team (where available) on any patient suspected or confirmed to have measles. Notify and consult with local Medical Health Officer/Public Health, for confirmed cases of measles or where there is a strong clinical suspicion (e.g., compatible symptoms, known exposure, no history of MMR immunization, and measles is highest on the differential diagnosis). This facilitates timely public health follow-up of the case, contacts and exposure management, as appropriate. Follow any additional guidance provided by local Public Health, which may supersede the above. In BC, measles is a reportable communicable disease under the Public Health Act.⁶
Immunization	<p>Measles is a vaccine-preventable disease.</p> <ul style="list-style-type: none"> Ensure health care worker (HCW) immunizations are up to date and records of immunity are updated and maintained.⁷ Refer to BCCDC Immunization Manual for information on recommended vaccines for health care workers. Encourage patients to be up to date for immunizations. Refer to the BCCDC for information on available vaccines for measles. Although uncommon, break through infections may occur in some vaccinated individuals or HCWs.^{7,8}

Infection prevention and control recommendations in health care settings

Case management

For patients presenting with symptoms and/or are suspected/confirmed to have measles:

- HCWs must provide instructions to patient to wear a medical mask (if tolerated) when outside their room and when presenting at reception desks. Additionally, HCWs must provide instruction on cleaning their hands.
- In addition to following routine practices, implement airborne precautions:
 - HCWs must wear a fit-tested and seal-checked respirator (e.g., N95 respirator or equivalent), regardless of their immune status, and wear additional personal protective equipment (PPE) based on [point-of-care risk assessment \(PCRA\)](#). Health care facilities may opt to implement droplet, contact, and airborne precautions for streamlined decision making.
 - HCW must place an airborne or airborne, droplet and contact precaution sign at the entrance of the patient room. Refer to the provincial [additional precaution signs](#) on the PICNet website.
 - Immediately place the patient in an airborne infection isolation room (AIIR) (i.e., negative pressure room). If an AIIR is unavailable, the patient must be placed in a single occupancy exam or patient room with a dedicated washroom or commode. Keep the door closed.
 - Where possible, only HCWs who meet the criteria for immunity should provide care to patients suspected or confirmed to have measles.⁷ Criteria for immunity in BC HCWs can be found in BCCDC's [Communicable Disease Control Manual Measles](#) section.
 - Caregivers and visitors should be restricted to essential persons and should wear well-fitting respirators.⁷ Fit-testing is not required.
 - Additional precautions must be continued until 4 days after rash onset for immune competent patients and until resolution of symptoms in immunocompromised patients.⁴
 - Minimize patient transfers unless medically necessary. Where possible, provide medical treatment and procedures within the patient room.
 - Where patient transfer or transport is necessary:
 - Plan and select routes that minimize exposure to other patients or personnel. Clear transport hallways and, if indicated, dedicate an elevator for the patient transport.
 - Have the patient wear a medical mask, if tolerated, and clean their hands.
 - Transporting personnel must wear a fit-tested, seal-checked respirator.
 - Upon patient discharge or transfer from the room, keep the door closed and allow two hours of air clearance time (where the air changes per hour rate is unknown) or after all air in the room has been replaced, based on known room air change rate.^{2,4} Refer to the U.S. Centres for Disease Control and Prevention's [Airborne Containment Removal Table](#) or your organizational guidelines. Consult with IPC professional/team and facilities maintenance and operations (where available).
 - Any health care workers, including environmental services personnel/housekeeping staff, that enter the patient room before air clearance timelines, must wear a seal-checked and fit-tested respirator.
 - Additional precaution sign must remain in place until air clearance times are achieved, and discharge cleaning and disinfection of the patient room is completed.

Exposure and Contact Management

- For patient exposure and contact management, consult with Public Health and IPC professional/team (where available). Refer to BCCDC's [Communicable Disease Control Manual Measles](#) section on contact management.
- For HCW exposures and contact management, consult with Public Health and the [Provincial Workplace Health Contact Centre](#) (for health authority operated settings). Refer to BCCDC's [Communicable Disease Control Manual Measles](#) section on contact management and PICNet's [Management of Health Care Providers Pre and Post Exposure to Measles, Mumps or Rubella \(MMR\)](#).

Additional Resources

- BC Centre for Disease Control (BCCDC). [Communicable Disease Control Manual Measles](#) (December 2024)
- PICNet. [Management of Health Care Providers Pre and Post Exposure to Measles, Mumps or Rubella \(MMR\)](#) (May 2011)
- HealthLink BC. [Measles \(Rubeola\)](#) (October 2022)
- Public Health Agency of Canada (PHAC). [Measles: For health professionals](#) (May 2024).
- Public Health Agency of Canada (PHAC). [Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Healthcare Settings](#) (September 2017)
- U.S. Centres for Disease Control and Prevention (CDC). [Clinical Overview of Measles](#) (May 2024)
- World Health Organization. [Measles Outbreak Toolbox](#) (September 2022)
- World Health Organization. [Guide for clinical case management and infection prevention and control during a measles outbreak](#) (March 2020)

Document Version

Summary of Major Changes

Measles: Infection Prevention and Control Information for Health Care Workers (September 9, 2025).

- Additional recommendations for health care workers and environmental services/housekeeping staff to wear respirator when entering patient room before sufficient air clearance.
- Addition of recommendations for patient transfer/transport.
- Additional considerations for notifying and consulting with Medical Health Officer/Public Health on clinically suspected measles cases.

Measles: Infection Prevention and Control Information for Health Care Workers (January 27, 2025).

- Additional information on clinical presentation, reservoir and source, transmission, incubation and communicable periods.
- Additional resources and links provided for surveillance, case definition, laboratory testing, immunization, and exposure and contact management for patients and HCWs.

Measles (PICNet website May 2023)

- Originally published on PICNet's measles web page .

References

1. Heymann, D.L. *Control of Communicable Diseases Manual*. 19th ed. American Public Health Association; 2008.
2. Public Health Agency of Canada (PHAC). Measles: For health professionals. Published October 21, 2016. Accessed May 28, 2024. <https://www.canada.ca/en/public-health/services/diseases/measles/health-professionals-measles.html>
3. U.S. Centres for Disease Control and Prevention (CDC). Measles (Rubeola). Measles (Rubeola). Published April 23, 2024. Accessed May 28, 2024. <https://www.cdc.gov/measles/index.html>
4. Public Health Agency of Canada (PHAC). Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Healthcare Settings. Published online September 26, 2017. Accessed March 27, 2024. <https://www.canada.ca/en/public-health/services/publications/diseases-conditions/routine-practices-precautions-healthcare-associated-infections.html>
5. BC Centre for Disease Control (BCCDC). *Communicable Disease Control Manual. Chapter 1. Measles.*; 2024. Accessed December 19, 2024. <http://www.bccdc.ca/health-professionals/clinical-resources/communicable-disease-control-manual/communicable-disease-control>
6. Government of British Columbia. *Reporting Information Affecting Public Health Regulation, Public Health Act*. Accessed March 26, 2024. https://www.bclaws.gov.bc.ca/civix/document/id/lc/statreg/167_2018
7. Public Health Agency of Canada (PHAC). Notice: Updated infection prevention and control recommendations for Measles in healthcare settings. Published May 27, 2024. Accessed May 29, 2024. <https://www.canada.ca/en/public-health/services/diseases/measles/health-professionals-measles/updated-infection-prevention-control-recommendations-healthcare-settings.html>
8. Public Health Agency of Canada (PHAC). Rapid risk assessment: Measles in Canada, public health implications in 2024. Published March 27, 2024. Accessed May 29, 2024. <https://www.canada.ca/en/public-health/services/emergency-preparedness-response/rapid-risk-assessments-public-health-professionals/rapid-risk-assessment-measles-public-health-implications-2024.html>
9. Guide for clinical case management and infection prevention and control during a measles outbreak. Accessed July 10, 2025. <https://www.who.int/publications/i/item/9789240002869>