

FIVE THINGS TO KNOW ABOUT ...

Measles

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Most cases of measles in Canada are caused by community transmission after international importation

In 2011, 753 cases of measles were reported in Canada. More than 95% of these cases (725) were in Quebec. Most cases (62%) occurred in people aged 10–19 years.¹ Returning Canadian travellers may transmit the virus to contacts, leading to clusters of cases. The absence of endemic measles in Canada can only be sustained if outbreaks are promptly contained.²

If measles is suspected, serum samples and swabs should be taken for serology and virus detection

These samples should be obtained from all patients with suspected measles, unless the local public health unit advises otherwise. Serum samples to detect immunoglobulins M and G should be collected as soon as possible after symptoms start, and a convalescent sample taken 10–20 days later. To detect the virus, a nasopharyngeal swab should be taken within 7 days of the rash appearing (throat swabs or urine samples are also suitable). Specimens collected for virus detection may be used for molecular testing and DNA analysis by the National Microbiology Laboratory in Winnipeg, Manitoba.⁴

Two doses of vaccine provide immunity in almost all recipients

To prevent measles, 2 doses of vaccine are recommended for children, and for adults at high risk of exposure, health care workers and school personnel.⁵ Vaccine should be given at 12 months of age and at 18 months or 4–6 years of age before entry to school. The efficacy of 1 dose at 12–15 months of age is about 95%, whereas 2 doses provide immunity in 99% of recipients.⁵ Two-dose coverage higher than 95% in a community will also indirectly protect infants too young to be vaccinated.

Measles infection is usually mild, but serious complications can occur

Clinical features include fever, maculopapular rash, cough, coryza and conjunctivitis. The incubation period is about 10–12 days before fever occurs and 14 days before the rash appears. Symptoms persist for 5–6 days.³ Measles may lead to secondary infections such as otitis or pneumonia, or to serious complications including encephalitis (1:1000 cases) and death (1:3000 cases). A mild case of measles requires symptomatic treatment only. In Canada, 13% of people with measles require admission to hospital.¹ A detailed vaccination and travel history can point to the diagnosis,⁴ and a regularly updated world map with reported cases is available online (www.who.int/immunization_monitoring/diseases/big_measlesreportedcases6months_PDF.pdf).

Infection control measures are essential to contain outbreaks

The measles virus is highly infectious and can spread rapidly.³ Segregating patients who present with fever and rash can minimize the spread of the disease. Patients with suspected and confirmed measles should be reported immediately to the local public health unit who will contact them. People aged 12 months or older who are susceptible to measles may be protected if vaccinated within 72 hours of exposure to the virus.⁵ This includes people born after 1970 who have not received 2 doses of measles vaccine.⁵ Before 1970, most people would have been exposed to endemic measles and developed adequate immunity.

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