

FIVE THINGS TO KNOW ABOUT ...

Measles

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We have seen a resurgence in measles in the developed world

Outbreaks of measles have occurred in Europe, the United Kingdom and parts of Canada (i.e., Quebec, British Columbia and Ontario).^{1,2} In 2011, Canada had its highest number of reported cases of measles since 1995.² Outbreaks have been attributed to an increasing number of people who have not been vaccinated, or who have been incompletely vaccinated, among populations born either domestically or abroad.¹⁻³ Imported cases of measles are an important mechanism for the introduction of the disease to susceptible populations.³

Measles is caused by an airborne virus and is one of the most communicable infectious diseases

The infection rate in people exposed and susceptible to the virus is greater than 90%.^{3,5} The incubation period is 8–12 days.³⁻⁵ Patients are contagious one day before the onset of symptoms and up to four days after the rash appears. All patients with suspected measles require immediate isolation under airborne precautions.²

Measles is a febrile respiratory illness characterized by a red “morbilliform” rash

The clinical case definition of measles includes all of the following features: fever ($\geq 38.3^{\circ}\text{C}$); cough, coryza or conjunctivitis; and a generalized erythematous maculopapular rash (\geq three-day duration).² Koplik spots, the enanthem of measles, appear on the buccal mucosa as bluish-grey specks on an erythematous base.³ The differential diagnosis of measles includes rubella, roseola, Kawasaki syndrome, scarlet fever, and rickettsial, enteroviral and adenoviral infections.⁴ Complications of the disease include pneumonia and encephalitis, which can be fatal.⁴

Prompt testing is required to confirm the diagnosis

In any suspected case of measles, investigations should include throat or nasopharyngeal swab (in viral transport medium) for polymerase chain reaction (PCR) testing, urine for PCR testing, acute serology (immunoglobulins M [IgM] and G [IgG]) and convalescent serology (IgG done 7–10 d after the appearance of the rash). Positive PCR test results, detectable IgM or an increase in IgG levels from acute to convalescent periods is diagnostic of acute infection.³ Laboratory-confirmed cases must be reported to public health. Reporting mechanisms vary between provinces.²

The live attenuated measles-mumps-rubella vaccine is safe and effective

The two-dose vaccine regimen is recommended in children; one to two doses are recommended in adults at high risk, depending upon the indication.⁶ Previous research alleging a link between the vaccine and autism or bowel disease has been discredited and retracted.^{3,6,7} Physicians can play an important role in increasing vaccine coverage.

References

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