

FIVE THINGS TO KNOW ABOUT ...

Ebola

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Ebolavirus is a filovirus that has caused sporadic outbreaks of disease; the current outbreak is the largest recorded

The virus's natural reservoir is thought to be bats. The first cases in the current outbreak were reported in Guinea in March 2014.¹ Since then, Guinea, Sierra Leone, Liberia and Nigeria have identified cases (Appendix 1, www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.141010/-/DC1). As of Aug. 15, 2014, 2127 patients have been affected, with 1145 deaths (i.e., 54% case fatality).²

Ebola is transmitted through contact with body fluids from patients

Viral particles enter through mucosal surfaces, breaks in the skin or by needlestick. Aerosol transmission is uncommon but has been reported in laboratory animals.⁴ Body fluids remain infectious until the virus is cleared, which may take weeks in those patients who survive.

Helpful resources for physicians

- Centers for Disease Control and Prevention: www.cdc.gov/vhf/ebola/
- World Health Organization Global Alert and Response: www.who.int/csr/disease/ebola/en/
- Government of Canada travel notice: <http://travel.gc.ca/travelling/health-safety/travel-health-notice/ebola>
- Public Health Agency of Canada 24-hour emergency line: 1-800-545-7661

Ebola presents with abrupt onset of fever and malaise

The incubation period varies from 2 to 21 days (mean 4–10 d). The initial presentation is that of a nonspecific febrile illness with myalgia, vomiting and diarrhea.³ Coagulopathy may develop near the end of the first week after symptoms first appear, presenting as petechial rash, conjunctival hemorrhage and easy bruising.³ Death generally results from a combination of shock and multi-organ failure.

No specific treatment is available; infection control remains the best option to prevent transmission

Consultation with an infectious diseases specialist is recommended if Ebola is suspected. Precautions must be taken immediately (e.g., the use of gowns, masks, gloves and goggles or face shields) in private rooms. Aerosol generation should be avoided. Treatment is supportive and includes giving fluids, blood products and critical care as necessary. Experimental therapies may be available from national health agencies.

Before collecting tissue samples for investigation, the laboratory director, microbiologist, receiving laboratory and infection control must be notified. Specimens should be processed according to regional and national safety protocols. Suspected cases must be reported to the local public health department.

Although Ebola should be considered in a febrile traveller returning from a zone at risk, other diagnoses must be investigated concurrently

Patients presenting with fever within 21 days of potential exposure should be assessed for Ebola. However, the more common causes of fever in the returned traveller, such as malaria, enteric fever or dengue, must also be investigated.⁵ If missed, these diseases can result in severe illness or death.

See references, www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.141010/-/DC1

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