

Ebola Virus Disease Epidemic

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The Ebola virus disease epidemic now constitutes an international public health emergency. Occupational and environmental health nurses can collaborate with international colleagues to halt Ebola virus transmission within Africa, protect workers from exposures, and prevent another pandemic. [*Workplace Health Saf* 2014;62(11):484.]

The World Health Organization (WHO) declared an international public health emergency in August 2014 after Ebola virus disease (EVD) claimed 1,000 victims (Kelland, 2014). First diagnosed in 1976, few considered this deadly disease a global threat because sporadic outbreaks were confined to small villages in Central Africa. However, shortly after the United States confirmed its first diagnosis of EVD, the global burden reached nearly 7,500 total cases and 3,500 deaths, more than all previous outbreaks combined; 216 health workers had died in Africa by October 1 (World Health Organization, [WHO], 2014a). The **Sidebar** provides key facts about EVD. Health systems in affected countries are now overwhelmed by insufficient health care workers, supplies, and facilities, whereas global travel continues to spread EVD.

Occupational and environmental health nurses can educate workers and the community on EVD and its symptoms, when to seek health care, basic infection control practices, universal bloodborne pathogen protection, personal protection equipment, and appropriate web-based resources (Center for Disease Control and Prevention [CDC], 2014a). Health care workers are most at risk and need knowledge of EVD and how to protect themselves

from exposure and transmission. In health care settings, occupational and environmental health nurses must ensure infection control practices are updated and always followed. The CDC (2014b) and WHO (2014b) provide information on diagnosis, specimen collection, environmental controls, personal protective equipment, transport and clinical management of patients, decontamination, and safe handling of specimens, biological contaminants, and human remains. A checklist is available to guide patient management when EVD is suspected (CDC, 2014c).

To protect all workers while abroad, international travel policies must include infection control measures, travel precautions for immunocompromised employees, and steps to follow if symptomatic. Workers should evaluate CDC (2014d) and WHO (2014c) advisories before international travel, and occupational and environmental health nurses can use the traveler evaluation algorithm (CDC, 2014e) to guide return to work decisions. Government websites are updated regularly as situations evolve and must be monitored to ensure best practice guidelines are followed. Occupational and environmental health nurses can collaborate with international colleagues to halt EVD transmission within Africa, protect workers from exposures, and prevent another pandemic.

REFERENCES

- Centers for Disease Control and Prevention. (2014a). *Ebola (Ebola virus disease)*. Retrieved from <http://www.cdc.gov/vhf/ebola/index.html>
- Centers for Disease Control and Prevention. (2014b). *Ebola (Ebola virus disease) information for healthcare workers*. Re-

Sidebar

Key Facts About Ebola Virus

- Spread through blood and bodily fluids of symptomatic or dead person/animal
- Incubation period between 2 and 21 days
- Usually symptomatic 8 to 10 days after exposure
- Symptoms include sudden onset fever greater than 101.5°F, severe headache, muscle pain, intense weakness and sore throat, then diarrhea and vomiting progressing to unexplained hemorrhage
- Mimics typhoid fever, malaria, cholera, meningitis, and other viral hemorrhagic fevers
- Infectious as long as blood and body fluids contain Ebola virus
- Transmitted through semen up to 7 weeks after asymptomatic

trieved from <http://www.cdc.gov/vhf/ebola/hcp/index.html>

Centers for Disease Control and Prevention. (2014c). *Checklist for patients being evaluated for Ebola virus disease (EVD) in the United States*. Retrieved from <http://www.cdc.gov/vhf/ebola/pdf/checklist-patients-evaluated-us-evd.pdf>

Centers for Disease Control and Prevention. (2014d). *Travel advice*. Retrieved from <http://wwwnc.cdc.gov/Travel>

Centers for Disease Control and Prevention. (2014e). *Algorithm for traveler evaluation*. Retrieved from <http://www.cdc.gov/vhf/ebola/pdf/ebola-algorithm.pdf>

Kelland, K. (2014, August 8). *WHO declares Ebola epidemic an international health emergency*. Reuters. Retrieved from <http://www.reuters.com/article/2014/08/08/us-health-ebola-emergency-idUSKBN0G80M620140808>

World Health Organization. (2014a, October 3). *WHO: Ebola response roadmap update*. Retrieved from http://apps.who.int/iris/bitstream/10665/135765/1/roadmapupdate3oct14_eng.pdf?ua=1

World Health Organization. (2014b, September 5). *Ebola virus disease: Occupational safety and health – joint WHO/ILO briefing note for workers and employers*. Retrieved from http://www.who.int/occupational_health/publications/ebola_osh/en/

World Health Organization. (2014c). *International travel and health West Africa – Ebola virus disease*. Retrieved from <http://who.int/ith/updates/20140421/en/>

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