Middle East Respiratory Syndrome (MERS)

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Occupational and environmental health nurses must monitor credible sources for accurate information, provide timely education to workers, and ensure adequate workplace policies to protect their workforce against Middle East Respiratory Syndrome (MERS). [*Workplace Health Saf* 2014;62(7):308.]

Middle East Respiratory Syndrome (MERS), first reported in Jordan in 2012, continues to warrant global attention. Caused by the Middle East Respiratory Syndrome Coronavirus (MERS-CoV), MERS is transmitted mainly through close personal contact such as caring for or living with an infected person. By May 28, 2014, 636 laboratory-confirmed cases of infections related to MERS-CoV and 193 associated deaths were reported in patients between 1 and 94 years of age (World Health Organization [WHO], 2014). Although MERS-CoV is similar to the virus responsible for Severe Acute Respiratory Syndrome (SARS), widespread community outbreaks have not occurred (Centers for Disease Control [CDC], 2014a). As with similar respiratory illnesses, primary symptoms include: fever, cough, and shortness of breath progressing to pneumonia and kidney failure in some patients. Deaths occur chiefly in immunocompromised patients or those with comorbidities from diabetes, cancer, or chronic heart, lung, and kidney disease. The incubation period for MERS is approximately 2 to 14 days (CDC, 2014c).

Coronaviruses, widespread among animal species, infect livestock and a wide range of wildlife. Camels and bats are considered sources of this potential zoonosis; the exact origin of MERS is unknown (Food and Agriculture Organization of the United Nations, 2014). Initially limited to countries in and near the Arabian Peninsula (CDC, 2014a), MERS spread to Asia, North Africa, Europe, and North America through global travel. The first confirmed United States case was May 2, 2014, in an American health care worker from Saudi Arabia who traveled to Indiana via Chicago. Human to human transfer of the virus was confirmed between this Indiana patient and an Illinois resident (CDC, 2014b). A second imported case of MERS was confirmed May 11, 2014, in another health care worker who traveled from Saudi Arabia to Orlando via Boston and Atlanta. Although disease transmission remains unclear, so far there is insufficient evidence MERS-CoV is easily transmitted (CDC, 2014d).

Occupational and environmental health nurses must be aware of this emerging infectious disease. The CDC (2014a) regularly updates the MERS webpage, which provides links to symptoms, prevention and treatment recommendations, and guidelines for health care providers and travelers. Managers and workers need education to lessen the risk of transmission within the workforce and decrease anxiety; supervisors need education on when workers should see the nurse. Sick leave policies should be enforced to ensure ill workers stay home; guidelines are needed for when to send workers home and return to work after any major public health threat. Because of increased health risks associated with global travel, travelers need to know how to monitor themselves for acute illness and where to seek treatment.

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Sidebar 1

Resources

Centers for Disease Control and Prevention: http://www.cdc.gov/coronavirus/mers/

International Health Regulations: http://www.who.int/ihr/ihr_ec_2013/en/

World Health Organization: http://www.who.int/csr/don/archive/disease/coronavirus_infections/en/

Infection threat preparedness is also needed in the worksite's emergency preparedness and response plan. Occupational and environmental health nurses should consult these resources for up-to-date recommendations about MERS (**Sidebar 1**). Continual monitoring of the MERS outbreak is warranted to prevent widespread global infection from this coronavirus.

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