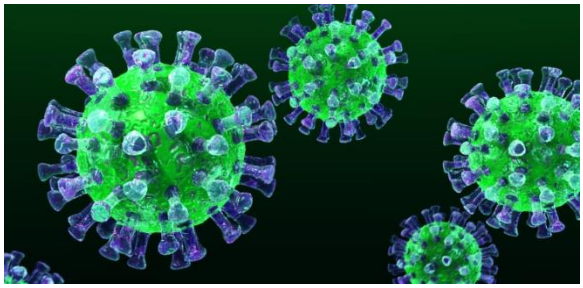
FACT SHEET

Preventing and Controlling the Spread of MERS-CoV

An outbreak of Middle East Respiratory Syndrome (MERS) in South Korea has prompted renewed concerns about the spread of this contagious, potentially fatal respiratory disease since it was first identified in Saudi Arabia in 2012.



MERS is caused by a novel coronavirus (CoV). Six coronaviruses, named for their shape, are known to infect people. Four of them are commonly occurring (including the common cold) and typically cause mild to moderate upper-respiratory tract illnesses. MERS and Severe Acute Respiratory Syndrome (SARS) are exceptions: both have been found to cause serious illness in people and some animals.

The first MERS case in South Korea was identified May 20, 2015, after a man infected with the virus returned home from a trip to the Middle East. As of June 9, the Republic of Korea reported 95 confirmed cases, seven related deaths, more than 2,500 people placed in quarantine and widespread school closures.

Globally since 2012, the World Health Organization (WHO) has been notified of 1,218 laboratory-confirmed cases and at least 449 related deaths, the majority of them in the Middle East. Outside of countries in or near the Arabian Peninsula, travel-associated cases have been reported in 16 other countries, including two in the United States.

All cases of MERS in South Korea have been acquired through nosocomial transmission, i.e., in hospitals or clinics.

Travel

Neither WHO nor the U.S. Centers for Disease Control and Prevention (CDC) have recommended MERS-related travel restrictions.

WorkCare recommends checking with company travel health advisers and applicable government agencies before traveling because conditions and entry-screening recommendations are subject to change. Postponing unnecessary travel to affected areas is considered a sensible approach, particularly for those with underlying chronic

health issues. It is also advisable to defer travel when feeling ill.

Exposure Risk

With aggressive prevention measures in place at health care facilities in South Korea, experts predicted rapid tapering in the number of cases. Exposure to and infection with the virus during non-health care-related business travel to a region affected by MERS is considered extremely unlikely.

MERS-CoV, like other coronaviruses, is thought to spread from contact with an infected person's respiratory secretions. Person-to-person contagion occurs during close contact, such as caring for or living with an infected person. Close contact is defined as:

- being within approximately 6 feet or within the room or care area for a prolonged period of time while not wearing recommended personal protective equipment (gowns, gloves, respirator, eye protection)
- having direct contact with infectious secretions while not wearing protective equipment

The CDC reports there is "very low risk" of acquiring of MERS-CoV infection in the U.S. Only two MERS patients have been treated and released from U.S. hospitals, both in May 2014. These unrelated cases involved health care providers who worked in Saudi Arabia.

People considered at greater risk for developing severe MERS symptoms include those with diabetes, kidney failure, chronic lung disease or weakened immune systems.

Symptoms and Treatment

To date, most patients with secondary cases of MERS have experienced a mild or asymptomatic clinical course. Severe symptoms include high fever and difficulty breathing.

The following are recommendations for anyone who is in or has recently visited an affected region:

1. If you develop a fever and symptoms of respiratory illness such as a cough or shortness of breath within 14 days of visiting one or more affected countries, call your health care provider. Mention your recent travel and follow their directions.
2. If you had close contact with someone within 14 days after they traveled from affected countries and the traveler has/had fever and symptoms of respiratory illness, monitor your health for 14 days, starting from the day you were last exposed to the ill person. If you develop symptoms, contact your health care provider (as above).
3. If you have had close contact with someone who has a confirmed MERS-CoV infection, contact a health care provider to request an evaluation. The provider may order laboratory testing and outline additional recommendations, depending on the findings of your evaluation and whether you have symptoms. You most likely will be asked to monitor your health for 14 days, starting from the day you were last exposed. Watch for these symptoms:

    - Fever; take your temperature twice a day
    - Coughing
    - Shortness of breath
    - Chills, body aches, sore throat, headache, diarrhea, nausea/vomiting, runny nose

Prevention and Control

To prevent the spread of infectious diseases and stay well, the following routine precautions are recommended:

- Wash your hands often with soap and water for 20 seconds and help young children do the same. If soap and water are not available, use an alcohol-based hand sanitizer.
- Cover your nose and mouth with a tissue when you cough or sneeze, then throw the tissue away.
- Avoid touching your eyes, nose and mouth with unwashed hands.
- Avoid personal contact, such as kissing or sharing cups and eating utensils, with sick people.
- Clean and disinfect frequently touched surfaces and objects, such as door handles.

The CDC has issued interim guidance for health care professionals and airline personnel. (See resources below.)

There is no specific antiviral treatment for MERS-CoV infection. Recommendations to help relieve symptoms include rest, fluids and pain medications. For severe cases, current treatment includes hospitalization and care to support vital organ functions.

There also is no vaccine to prevent MERS-CoV infection. The U.S. National Institutes of Health is exploring the possibility of developing one.

Link to Animals

Although the majority of MERS cases are attributed to human-to-human contact, infected camels have been linked to some human cases. The role of camels in transmission is under investigation. It is believed MERS-CoV originated in bats.

Ironically, scientists say camels may be part of the solution: Antibodies from dromedary camels protected uninfected mice from MERS and helped infected mice expunge the disease, according to a study in the March 18, 2015, online edition of the *Journal of Virology*, published by the American Society for Microbiology.

Meanwhile, the outbreak in South Korea is being closely monitored.

A team of experts assembled by WHO and the Republic of Korea's Ministry of Health and Welfare are conducting a joint investigation to assess disease patterns and provide recommendations for response measures. Because MERS is a relatively new human disease and experience with it is limited, joint research "will bring us a step closer to gaining a better understanding of the nature of this virus," public health officials said.

Please refer to the next page for resources.

Resources

CDC:

- Travel Guidance
- Infection Prevention and Control Recommendations
- Interim Guidance for Airline Crews
- Interim Guidance for Health Care Professionals.
- Interim Guidance for Preventing MERS-CoV from Spreading in Homes and Communities
- People at Increased Risk for MERS

WHO:

- MERS-CoV Fact Sheet
- Frequently Asked Questions on MERS-CoV

WorkCare physicians and members of our TravelCare team are available to answer your questions about MERS-CoV and other health issues. Read our fact sheet on infectious diseases to learn more.