

MERS Fact Sheet

What is MERS?

Middle East Respiratory Syndrome (MERS) is a respiratory illness caused by a new coronavirus (MERS-CoV). As of May 2014 there have been 572 confirmed cases worldwide, including two cases of MERS infection in the US. Both US cases were travelers who recently returned from the Middle East. Although the source of MERS-CoV is unknown, the virus has been isolated from camels and bats in the Middle East.

What are symptoms of MERS?

At this time about 25% of identified cases have been mild or asymptomatic. In symptomatic patients, MERS initially causes fever, cough and shortness of breath, which in over 50% of identified cases has progressed to severe respiratory illness requiring hospitalization, and approximately 30% have died of their illness.

How is MERS treated?

Currently no specific treatment or vaccine for MERS-CoV is available. Patients should be placed in both contact and airborne precautions, and supportive therapy provided to relieve symptoms.

Who is at risk?

Recent travelers to the Arabian Peninsula are at elevated risk, along with those in close contact with the traveler. There is currently no evidence of sustained spread of MERS-CoV in community settings, but healthcare workers and others providing care to infected patients have become infected.

What is the hospital doing about MERS?

Patients with acute respiratory symptoms are being screened at intake/triage for a history of travel to the Arabian Peninsula or contact with someone who has recently traveled there. If the history is positive, the patient will be placed in isolation.

How do I protect myself from MERS in the laboratory?

Although little is known about transmission of the virus, the virus can be present in the blood, body fluids, stool and respiratory secretions of infected patients. Based on the Centers for Disease Control and Prevention (CDC) current recommendations, Lab Medicine will consider MERS-CoV a 'Bioalert' organism, and handle specimens using enhanced standard precautions as outlined in the **Laboratory Medicine Bioalert Plan** (see the Lab Med Workplace Safety Manual).

Phlebotomy

Phlebotomists or others with direct patient contact should follow both contact and airborne precautions (similar to influenza virus precautions) on known or suspected MERS-CoV patients.

Diagnostic laboratory testing (non-virology tests)

Current CDC and WHO recommendations are to perform diagnostic lab testing using BSL2 precautions with special attention to the control of spills, splashes and aerosols – which is consistent with Laboratory Medicine's **Enhanced Standard Precautions**.

Laboratory Medicine's **Enhanced Standard Precautions** includes the following:

- Wear appropriate personal protective equipment (gloves, lab coat, eye protection).
- Wear gloves, and immediately discard gloves and perform hand hygiene when finished handling a specimen.
- Be careful to avoid aerosol & droplet formation (cover the top of tubes with gauze when opening, avoiding forceful dispensing from pipets, etc.).
- Perform procedures likely to cause splash or aerosols in a biological safety cabinet.
- Decontaminate work surfaces immediately after handling specimens using bleach or other approved laboratory disinfectants.
- Collect all waste from handling, manipulating or testing specimen in a separate biohazard bag and discard as outlined in the **Laboratory Medicine Bioalert Plan**.
- Give a verbal warning whenever handing or transferring specimens to another person.
- Follow individual division's **Bioalert Plan** regarding specific high-risk tests or procedures.

How to handle requests for MERS-CoV testing

Definitive MERS-CoV PCR testing is through the State Health Lab. An informational page has been added to the Lab Medicine Online Test Guide, and will be updated as needed.

Phone requests:

Inform caller to contact their public health lab to obtain approval for testing and guidance on appropriate sample types. In Seattle, contact Seattle King County Public Health Lab at 206-296-4774.

Samples received for MERS or "Rule out MERS"

- Log in send-out test (SPMSND), which will generate a send-out test to SKCPH. See Online Test Guide for current protocol.
- If other testing is also requested on this patient (Chemistry, Heme, Micro, Virology etc.) order tests as requested. Label as a Bioalert specimen, and add 'Possible MERS' as a modifier comment to all orders. Verbally communicate when handing specimens to another employee.

Lab Medicine will continue to monitor the situation and will update these instructions as needed. For questions, contact Laboratory Safety Officer Sara Trimble or your supervisor.