



Middle East Respiratory Syndrome Coronavirus (MERS-CoV) Guidance from the ASPR Division of National Healthcare Preparedness Programs

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In response to the Middle East Respiratory Syndrome Coronavirus (MERS-CoV), the Office of the Assistant Secretary for Preparedness and Response (ASPR), the Centers for Disease Control and Prevention, and other partners are gathering more details on the virus and methods to detect and manage it.

Quick facts:

- MERS-CoV is new to humans and is associated with respiratory illness resulting in high mortality rates, although mild illness and asymptomatic cases have also been reported.
- All reported MERS-CoV cases are linked to four countries in or near the Arabian Peninsula: Saudi Arabia, Qatar, Jordan, and the United Arab Emirates.
- The first known cases of MERS-CoV occurred in April 2012.
- To date, no cases have been reported in the United States.
- Researchers do not know the specific source of MERS-CoV infection in humans.
- There are no known vaccines or specific antiviral treatments for MERS-CoV infection.
- Updated information can be found at: www.cdc.gov/coronavirus/MERS

In some cases, MERS-CoV has spread from person to person through close contact, such as caring for or living with an infected person. However, there is currently no evidence of sustained person-to-person spread.

ASPR Capability-Linked Recommendations for Awardees and Healthcare Coalitions:

Detect (Information Sharing), **Protect** (Responder Health and Safety), and **Respond** (Medical Surge) are critical principles in preparedness and response to MERS-CoV. These principles align with the Healthcare Preparedness Capabilities outlined in the *National Guidance for Healthcare System Preparedness* published in January 2012 by the Hospital Preparedness Program, Office of the Assistant Secretary of Preparedness and Response.

Detect

- Implementing the Responder Safety and Health Capability - Information Sharing (Capability #6) will be critical in responding to MERS-CoV. Capability 6 is the ability to conduct multijurisdictional, multidisciplinary exchange of public health and medical related information and situational awareness between the healthcare system and local, state, federal, tribal, and territorial levels of government and the private sector.
- Healthcare coalition partners should develop and implement sound and comprehensive plans and protocols to ensure timely sharing of relevant, actionable health data between key stakeholders, especially public health.
- CDC guidance for case investigation continues to evolve and includes case definitions (who to test), specimen collection, and shipment for testing. (See <http://www.cdc.gov/coronavirus/mers/health-departments.html>)

Protect

Training

- Healthcare coalitions partners should review the Responder Safety and Health Capability (Capability #14) and train health providers to:
 - Identify symptoms of MERS-CoV infection. (See <http://www.cdc.gov/coronavirus/mers/case-def.html>)
 - Correctly utilize personal protective equipment (PPE) with proper medical clearance, respirator fit-testing, and training.
 - Emphasize the importance of personal hygiene, especially proper hand hygiene.
- Healthcare coalition partners should incorporate MERS-CoV information into educational activities, including physician Grand Rounds, nursing educational meetings, and other healthcare system and coalition staff training opportunities.

Policy/Plans/Procedures

- Healthcare coalitions partners should:
 - Review policies and procedures for screening, work restrictions, and medical consultation for exposed or ill health care providers from MERS-CoV.
 - Review visitor management plans to ensure a safe environment for patients, visitors, and staff.
 - Develop infection control policies and procedures based on national guidelines for routine infection control and specific interim guidance provided for MERS-CoV. (Link: <http://www.cdc.gov/coronavirus/mers/infection-prevention-control.html>)
 - Address the needs special populations in all MERS-CoV preparedness and response plans.
 - The use of a “buddy system” when donning and doffing PPE is an identified promising practice to ensure optimal protection for healthcare providers. When caring for patients or suspected patients with MERS-CoV infection, this may be a helpful operating procedure for institutions to consider.

Supplies/Equipment

- Healthcare coalition partners should:
 - Ensure that the types of PPE required (N95s, Powered Air Purifying Respirators (PAPRs), etc.) are available for appropriate staff.
 - Ensure that equipment meets nationally recognized standards as defined by the OSHA, CDC, FDA, or Interagency Board for Equipment Standardization and Interoperability (<https://iab.gov/SELint.aspx>).
 - Encourage PPE procurement that is consistent with the type of PPE used locally to promote interoperability and inter-facility sharing.
- Healthcare coalitions partners equipped with Airborne Infection Isolation (AII) rooms should:
 - Ensure rooms are functioning correctly and are appropriately monitored for airflow and exhaust handling.
 - Review standard operating procedures to meet the specific challenges of healthcare delivery when caring for patients infected with MERS-CoV and modify as needed.

Respond

- In preparation to respond to a patient or patients with MERS-CoV, healthcare coalitions partners should:
 - Review and discuss medical surge plans (Capability #10) with facility staff and coalition partners to ensure coordinated preparedness and response activities for unexpected MERS-CoV patients.
 - Have plans in place to provide adequate respiratory support, medications, and properly trained staff in personal protection, isolation procedures, ventilator management, and care of MERS-CoV patients.

- One identified promising practice is the development of a facility based interdisciplinary rapid response team. These teams could prove to be efficient response tools for patients presenting to coalition partners with suspected MERS-CoV infections and could include representatives from the following disciplines: administration, infection control, nursing, infectious disease, critical care, occupational health, and clinical laboratory.
- CDC has developed two checklists to help guide provider and/or facilities:
<http://www.cdc.gov/coronavirus/mers/preparedness>

ASPR stands by to connect stakeholders with the most current information on MERS-CoV infection preparedness and response and share promising practices to better prepare healthcare providers, coalitions, and communities. ASPR will update this information sheet periodically with additional guidance as needed.

The CDC MERS-CoV website provides recommendations and guidance on MERS-CoV case definitions, case investigation, and specimen collection and shipment for testing and infection control, including use of personal protective equipment (See: <http://www.cdc.gov/coronavirus/MERS/index.html>). Information and guidance posted on this website may change as experts learn more about the virus. Please check CDC's MERS website regularly for the most current information. State and local health departments with questions should contact the CDC Emergency Operations Center (770-488-7100 or eocreport@cdc.gov).