

Date: 16 June 2014
To: Health Care Providers
From: Alvaro Garza, MD, MPH, Health Officer

**Please distribute to all
providers and relevant
medical staff in your office.**

HEALTH ADVISORY Middle East Respiratory Syndrome (MERS)

Situation: Two cases of MERS in the U.S. were confirmed in May in travelers from Saudi Arabia. The first was a traveler to Indiana. The second was a traveler to Florida. Both are healthcare workers residing and working in Saudi Arabia. The two cases are not linked. The U.S. Centers for Disease Control and Prevention (CDC) has reported that the MERS situation represents a very low risk to the general public in this country.

Background: In 2012, a novel coronavirus (MERS-CoV) was identified in an individual who died with an acute respiratory distress syndrome in Saudi Arabia. As of 11 June 2014, 699 laboratory-confirmed cases of infection with MERS-CoV have been reported to the World Health Organization (WHO), including 209 deaths. Affected countries in the Middle East include Saudi Arabia, Jordan, Qatar, the UAE, Oman, Kuwait, Yemen, Iran, and Lebanon; in Africa: Algeria, Egypt, and Tunisia; in Europe: France, Germany, Greece, Italy, the Netherlands, and the United Kingdom; in Asia: Malaysia and Philippines. The CDC has posted clinical, laboratory, and infection control guidance at www.cdc.gov/coronavirus/MERS/index.html.

No travel warnings or restrictions are currently in effect for the Arabian Peninsula or neighboring countries. The CDC recommends that travelers to the Arabian Peninsula practice enhanced precautions. Please visit <http://wwwnc.cdc.gov/travel/notices/alert/coronavirus-arabian-peninsula-uk> for more information.

Actions Requested of Clinicians:

Suspect MERS and evaluate potential cases using the criteria listed below.

Implement Airborne, Contact, and Standard infection control precautions immediately for suspected cases. Notify your facility's Infection Control Professional immediately.

Report suspected MERS cases immediately to San Joaquin County Public Health Services (SJCPHS) by telephone (workday: 468-3822; after hours: 468-6000).

Test suspected cases. Call SJCPHS to arrange testing by the Public Health Laboratory; see guidelines listed below.

Clinical Presentation: A wide clinical spectrum of MERS-CoV infection has been reported, ranging from asymptomatic infection to acute upper respiratory illness, and rapidly progressive pneumonitis, respiratory failure, septic shock and multi-organ failure resulting in death. At hospital admission,

common signs and symptoms include fever, chills/rigors, headache, non-productive cough, dyspnea, and myalgia.

Evaluation Criteria: Persons with

A. Fever **AND** pneumonia or acute respiratory distress syndrome (based on clinical or radiologic evidence) **AND**:

- history of travel from countries in or near the Arabian Peninsula within 14 days before symptom onset, **OR**
- close contact with a symptomatic traveler who developed fever and acute respiratory illness (not necessarily pneumonia) within 14 days after traveling from countries in or near the Arabian Peninsula, **OR**
- a member of a cluster of patients with severe acute respiratory illness (e.g., fever and pneumonia requiring hospitalization) of unknown etiology in which MERS-CoV is being evaluated, in consultation with SJCPHS.

OR

B. Fever **AND** symptoms of respiratory illness (not necessarily pneumonia; e.g., cough, shortness of breath) **AND** being in a healthcare facility (as a patient, worker, or visitor) within 14 days before symptom onset in a country or territory in or near the Arabian Peninsula in which recent healthcare-associated cases of MERS have been identified.

Infection Control: Suspect or confirmed MERS cases should be placed in an airborne infection (negative-pressure) isolation room with Airborne, Contact, and Standard precautions, including eye protection. Isolation should continue until PCR testing is negative for suspected cases or until 10 days after resolution of fever in laboratory-confirmed cases. Additional guidance can be found on the CDC website: <http://www.cdc.gov/coronavirus/mers/infection-prevention-control.html>.

Test suspected cases: Contact SJCPHS prior to submitting specimens. To increase the likelihood of detection, multiple specimens from different anatomic sites are desired.

1. Lower respiratory tract specimens typically have the highest yield. Therefore, bronchoalveolar lavage, tracheal aspirate, pleural fluid, and/or sputum should be collected whenever possible.
2. Upper respiratory tract specimens, including nasopharyngeal and oropharyngeal (throat) swabs should also be obtained. Nasal washes are not acceptable. Use only synthetic fiber swabs with plastic shafts. Do not use calcium alginate or wooden shaft swabs.
3. Respiratory samples should be sent in viral transport media (VTM) only.
4. Additionally, collect serum and stool specimens.
5. Laboratories should NOT attempt to perform viral culture on specimens from patients with suspected or laboratory-confirmed MERS infection.

Additional Information:

- <http://www.cdph.ca.gov/programs/cder/Pages/MERS-CoV.aspx>
- <http://www.cdc.gov/coronavirus/mers/index.html>
- http://www.who.int/csr/disease/coronavirus_infections/en/