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Health Advisory

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Middle East Respiratory Syndrome Coronavirus (MERS-CoV): Interim Recommendations for Evaluation, Infection Control, & Laboratory Submission

UPDATES- from CDC as of 6/7/13 (emergency.cdc.gov/HAN)

- The incubation period has been extended to 14 days
- Recent data suggest that clinical presentation may not initially include respiratory symptoms
- Co-morbid conditions and immunosuppression may increase risk for infection and/or severe disease
- Lower respiratory tract specimens are the highest priority specimens to collect

SITUATION: In 2012 a novel coronavirus was identified, later named Middle East Respiratory Syndrome Coronavirus (MERS-CoV) in an individual who died with an acute respiratory distress syndrome in Saudi Arabia. As of June 10, 2013, case clusters have been reported in Saudi Arabia (40), the United Kingdom (3), France (2), Italy (3), Jordan (2), Qatar (2), the United Arab Emirates (1) and Tunisia (2), for a total of 55 individuals, 31 of whom have died. No patients with MERS-CoV have been identified in the U.S. The U.S. Centers for Disease Control & Prevention (CDC) has posted case counts, clinical and laboratory guidance, questions and answers, and additional information at: cdc.gov/coronavirus/mers/index.html

Many infections have been healthcare-associated -- almost half of the recognized cases are part of one healthcare cluster in Saudi Arabia. One person in France became infected after sharing a hospital room with another infected person. There is clear evidence of person-to-person transmission, though the efficiency of transmission and the modes and routes of transmission are still under investigation.

No travel warnings or restrictions are in effect for the Arabian Peninsula or neighboring countries.*

ACTIONS REQUESTED OF CLINICIANS:

1. **Remain alert for and evaluate** potential cases of MERS-CoV using the criteria listed below.
2. **Report suspected cases** of MERS-CoV to SFDPH Communicable Disease Control at 415-554-2830; after hours follow voicemail prompts to connect to the on-call physician.
3. Notify your **Infection Control Practitioner** immediately, and implement **Airborne, Contact, and Standard infection control precautions** when caring for patients with known or suspected MERS-CoV.
4. **Collect and submit specimens to SFDPH Lab** according to guidelines referenced below, and **Contact** SFDPH Communicable Disease Control at 415-554-2830 **BEFORE** submitting any specimens.

EVALUATION CRITERIA: Those who **should be evaluated** for MERS-CoV infection:

- Acute respiratory infection, which may include fever ($\geq 38^{\circ}\text{C}$ or 100.4°F) and cough; **AND**
- Suspicion of pulmonary parenchymal disease (e.g., pneumonia or acute respiratory distress syndrome based on clinical or radiological evidence of consolidation); **AND**
- history of travel from the Arabian Peninsula or neighboring countries* within 14 days; **AND**

- not already explained by any other infection or etiology, including all clinically indicated tests for community-acquired pneumonia**

In addition, the following persons **may be considered for evaluation** for MERS-CoV infection:

- Persons with severe acute lower respiratory illness of known etiology with symptom onset within 14 days of travel from the Arabian Peninsula or neighboring countries* but do not respond to appropriate therapy; **OR**
- Persons with severe acute lower respiratory illness who are close contacts of a symptomatic traveler who developed fever and acute respiratory illness within 14 days after travel from the Arabian Peninsula or neighboring countries.* Close contact is defined as providing care for the ill traveler (e.g., a healthcare worker or family member), or having similar close physical contact; or stayed at the same place (e.g. lived with, visited) as the traveler while the traveler was ill.

INFECTION CONTROL: For patients with known or suspected MERS-CoV infection, CDC recommends implementing infection control guidance developed for Severe Acute Respiratory Syndrome (SARS). CDC infection control guidance for SARS is available at: cdc.gov/sars/infection.

- **Airborne and Contact Precautions, in addition to Standard Precautions**, should be applied
- Your **Infection Control Practitioner** should be notified immediately.

With the absence of a vaccine, effective drugs, or natural immunity to MERS-CoV, the only means available to limit the spread of MERS-CoV are public health measures to rapidly identify infected persons and activate transmission control methods. These measures include:

- Surveillance for cases or suspicious clusters of severe disease, with appropriate diagnostic testing;
- Rapid isolation and strict adherence to infection control precautions;
- Prompt identification and careful monitoring of contacts; and
- Consideration of quarantine, in some instances, to minimize movement of exposed persons.

LABORATORY SUBMISSION: Contact SFDPH Communicable Disease Control **BEFORE submitting specimens** (415-554-2830; after hours follow voicemail prompts to connect to the on-call physician).

Specimens from medical providers in San Francisco should be sent through the SFDPH Public Health Laboratory in order to facilitate testing. **Do not send specimens directly to CDPH or CDC.**

To increase likelihood of detection, collect multiple specimens from different anatomic sites (respiratory, blood, stool) and at different times after symptom onset, if possible. Highest priority should be collection of lower respiratory tract (sputum, bronchoalveolar lavage, bronchial wash, or tracheal aspirate) specimens.

Full instructions for specimen collection and processing are available at: sfcdcp.org/MERS-CoV.html.

ADDITIONAL RESOURCES:

San Francisco Department of Public Health: sfcdcp.org/MERS-CoV.html

California Department of Public Health: cdph.ca.gov/programs/cder/Pages/MERS-CoV.aspx

Centers for Disease Control & Prevention: cdc.gov/coronavirus/mers/index.html

World Health Organization: who.int/csr/disease/coronavirus_infections/en/index.html

*Arabian Peninsula or neighboring countries include: Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Palestinian territories, Oman, Qatar, Saudi Arabia, Syria, the United Arab Emirates, and Yemen.

** Examples of respiratory pathogens causing community acquired pneumonia include influenza A and B, respiratory syncytial virus, *Streptococcus pneumoniae*, and *Legionella pneumophila*.