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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

The San Francisco Department of Health provides this guidance based on current information. For the most up to date information visit [www.sfdcp.org](http://www.sfdcp.org). Recommendations may change, and SF recommendations may differ from those issued by the Centers for Disease Control and Prevention (CDC) and the California Department of Public Health (CDPH).

### **UPDATE- from CDC as of 5/20/14:**

- Evaluation criteria for MERS-CoV now include persons with close contact<sup>1</sup> to a confirmed or probable case of MERS-CoV while the case was ill.

For updated case counts and situation status: <http://www.cdc.gov/coronavirus/MERS/index.html>

For travel guidance updates: [wwwnc.cdc.gov/travel/notices/alert/coronavirus-arabian-peninsula-uk](http://wwwnc.cdc.gov/travel/notices/alert/coronavirus-arabian-peninsula-uk)

**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. Since then, hundreds of MERS-CoV cases have been reported, and all have been linked to countries of the Arabian Peninsula (Saudi Arabia, Jordan, Qatar, United Arab Emirates, Oman, Kuwait, and Yemen). Imported cases have occurred in Europe, North Africa, and recently in the United States.

Many infections have been healthcare-associated. There is evidence of person-to-person transmission, though the efficiency of transmission, and the modes and routes of transmission are still under investigation. Given this uncertainty, recommendations for clinicians concerning evaluation and monitoring are rapidly evolving.

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](http://cdc.gov/coronavirus/mers/index.html)

### **ACTIONS REQUESTED OF CLINICIANS:**

1. **Remain alert for** potential cases of MERS-CoV. **Evaluate** persons who meet the criteria listed below.
2. **Immediately report suspected cases** of MERS-CoV to the 24-hour SFDPH Communicable Disease Control Unit (CDCU) telephone line at 415-554-2830. After hours follow voicemail instructions to contact the on-call physician.
3. **Notify** SFDPH CDCU of close contacts<sup>1</sup> to confirmed or probable cases of MERS-CoV while the case was ill.
4. 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.
5. **Collect and submit specimens to SFDPH Laboratory (SFPHL)** 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:

1. Person with **fever and pneumonia or acute respiratory distress syndrome** (based on clinical or radiologic evidence) **AND ONE of the following:**
  - History of travel from the Arabian Peninsula or neighboring countries\* within 14 days of symptom onset; **OR**
  - Close contact<sup>1</sup> of a symptomatic traveler who developed fever and acute respiratory illness, within 14 days after travel from the Arabian Peninsula or neighboring countries; **OR**
  - 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.

**OR**

2. Close contacts<sup>1</sup> to a confirmed or probable case of MERS-CoV while the case was ill. Contact SFDPH to determine appropriate management and follow-up for close contacts

NOTE: Since co-infections can occur, positive results for another respiratory pathogen (e.g., influenza) do not eliminate the need for testing based on criteria above.

**INFECTION CONTROL for patients with known or suspected MERS-CoV infection:**

- **Airborne and Contact Precautions, in addition to Standard Precautions**, should be applied.
- Your **Infection Control Practitioner** should be notified immediately.
- If the case is not sick enough to need hospitalization, he or she should be isolated at home. SFDPH CDCU will provide guidance concerning home isolation.
- Infection prevention and control guidelines may be found at [cdc.gov/coronavirus/mers/infection-prevention-control.html](http://cdc.gov/coronavirus/mers/infection-prevention-control.html)

Since there are currently no vaccines, 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 implement 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 close contacts - recommendations for follow up should be considered on a case by case basis in consultation with SFDPH/CD Control Unit.

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

- Specimens from medical providers in San Francisco should be sent through the SFPHL 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](http://sfcdcp.org/MERS-CoV.html)

**ADDITIONAL RESOURCES:**

San Francisco Department of Public Health: [sfcdcp.org/MERS-CoV.html](http://sfcdcp.org/MERS-CoV.html)

California Department of Public Health: [cdph.ca.gov/programs/cder/Pages/MERS-CoV.aspx](http://cdph.ca.gov/programs/cder/Pages/MERS-CoV.aspx)

Centers for Disease Control & Prevention: [cdc.gov/coronavirus/mers/index.html](http://cdc.gov/coronavirus/mers/index.html)

World Health Organization: [who.int/csr/disease/coronavirus\\_infections/en/index.html](http://who.int/csr/disease/coronavirus_infections/en/index.html)

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<sup>1</sup> 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.

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