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Update for Health Care Providers on Middle East Respiratory Syndrome (MERS) June 12, 2015

In response to an ongoing outbreak associated with health care facilities in South Korea, the Centers for Disease Control and Prevention (CDC) has posted a Health Advisory providing updated information and guidelines for evaluation of patients for Middle East Respiratory Syndrome Coronavirus (MERS-CoV) infection at <http://emergency.cdc.gov/HAN/han00380.asp>.

In this alert, the California Department of Public Health (CDPH) emphasizes prompt diagnostic suspicion and infection control measures to prevent the potential spread of MERS in health care facilities.

A. Key messages for health care providers:

- MERS currently poses a low risk to residents in the United States. No cases of MERS have yet occurred in California.
- If introduced from travelers, MERS could spread readily in health care facilities with severe consequences unless appropriate infection control measures are used.
- A large, ongoing outbreak in South Korea, initiated through travel to the Arabian Peninsula and transmitted through healthcare facilities, began in May 2015.
- New cases and outbreaks of MERS continue to occur in the Arabian Peninsula.
- To reduce the spread of MERS and other infectious diseases associated with travel, health care providers should
 - Obtain detailed travel histories from patients
 - Promptly institute appropriate infection control measures. For suspected MERS cases, these include Standard, Contact and Airborne precautions. To ensure your preparedness, please review detailed infection control recommendations for care at facilities or home posted at <http://www.cdc.gov/coronavirus/mers/infection-prevention-control.html> and <http://www.cdc.gov/coronavirus/mers/hcp/home-care.html>.
 - Notify your Local Health Department about reportable diseases; immediately report suspected MERS cases. Local Health Department Contact information is linked at <http://www.cdph.ca.gov/healthinfo/Pages/ReportableDiseases.aspx>

B. Additional Resources

- Detailed guidance on MERS for healthcare providers and links to other CDC resources are posted at <http://www.cdc.gov/coronavirus/mers/interim-guidance.html>

- An updated poster for waiting rooms to alert patients to report their travel history is available at <https://www.cdph.ca.gov/programs/immunize/Documents/IMM-1141.pdf>.
- Additional CDPH resources on MERS are available at <https://www.cdph.ca.gov/programs/immunize/Pages/MERS-CoV.aspx>
- WHO resources on MERS are available at http://www.who.int/csr/disease/coronavirus_infections/en/

C. California Patients Who Should Be Evaluated for MERS-CoV Infection

The following criteria serve as guidance for testing; however, patients should be evaluated and discussed with public health departments on a case-by-case basis, especially if their clinical presentation or exposure history is equivocal (e.g., uncertain history of health care exposure).

A. Fever AND

Pneumonia or acute respiratory distress syndrome (based on clinical or radiologic evidence)

AND ANY OF:

- 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
- June 2015 addition: History of being in a healthcare facility (as a patient, worker, or visitor) in the Republic of Korea within 14 days before symptom onset, 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 state and local health departments.

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

OR

C. EITHER Fever OR Symptoms of respiratory illness (not necessarily pneumonia; e.g., cough, shortness of breath)

AND

Close contact[^] with a confirmed MERS case while the case was ill

*Countries in or near the Arabian Peninsula include Bahrain, Iraq, Iran, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian territories, Qatar, Saudi Arabia, Syria, the United Arab Emirates (UAE), and Yemen.

^ A close contact is defined as any person who has been:

- Within approximately 6 feet (2 meters) or within the room or care area for a prolonged period of time (e.g., healthcare personnel, household members) while not wearing recommended personal protective equipment (i.e., gowns, gloves, respirator, eye protection); OR
- In direct contact with infectious secretions (e.g., being coughed on) while not wearing recommended personal protective equipment (i.e., gowns, gloves, respirator, eye protection).

Data to inform the definition of close contact are limited. At this time, brief interactions, such as walking by a person, are considered low risk and do not constitute close contact.

D. Background on MERS and the current outbreak in South Korea

MERS is caused by a distinctive coronavirus (MERS-CoV). Typical early symptoms are similar to other influenza-like illnesses and include fever, cough, chills and shortness of breath. Pneumonia is common. Some cases have had diarrhea, nausea or vomiting. Other cases tested after their contact with MERS patients have been asymptomatic. Complications include severe pneumonia, acute respiratory distress syndrome and organ failure. Approximately 35-40% of confirmed cases have died. Most severe cases have had underlying chronic medical conditions. There is no known treatment, vaccine or chemoprophylaxis for MERS-CoV infection; management is supportive.

Dromedary camels are a host for MERS-CoV, but their roles and importance in transmission is unclear. Limited human-to-human transmission of MERS-CoV has occurred in contacts of cases in health care settings or households in the absence of adequate infection control precautions. There is no evidence yet of sustained transmission of MERS-CoV.

Since the first case of MERS was reported in 2012 from Saudi Arabia, more than 1200 confirmed cases of MERS have been reported in 25 countries. All MERS cases to date have resided in or traveled to the Arabian Peninsula or have been linked to a case who had recently traveled there. The only two cases of MERS to date in the United States (Indiana and Florida), both healthcare workers exposed while working in Saudi Arabia, were reported in May 2014. Since 2013, 63 persons have been investigated in California for possible infection with the MERS coronavirus. All have tested negative via polymerase chain reaction at either the CDPH Viral and Rickettsial Disease Laboratory (VRDL) or the Los Angeles County Public Health Laboratory; the risk of MERS in California has been very low.

A large, ongoing outbreak in South Korea associated with healthcare facilities began when an employee of an agricultural products company returned from the Arabian Peninsula in May 2015. More than 120 cases, mostly patients, staff and visitors at facilities in or nearby Seoul, have been reported by the South Korean Ministry of Health as of June 11, 2015. One contact traveled against medical advice via Hong Kong to China, where he became ill and tested positive for MERS. Although most cases have resulted from transmission in health care settings, as in the Arabian Peninsula there is no evidence of sustained transmission in the community. The genetic sequence of MERS-CoV from one Korean patient is similar to isolates from the Arabian Peninsula; there is no evidence yet of mutations in the virus that could make it more contagious. The case mortality rate in the outbreak has been less than 10%; more complete case finding is a possible explanation for reported mortality being less frequent than in the Arabian Peninsula.