Center for Policy, Planning and Evaluation Administration
Division of Epidemiology–Disease Surveillance and Investigation

August 21, 2018

Health Notice for District of Columbia Health Care Providers
Increased Vigilance for Middle East Respiratory Syndrome Among Persons Who Travel to Saudi Arabia for the Annual Pilgrimage (Hajj)

Summary
The purpose of this Health Notice is to increase awareness and provide timely updates on Middle East Respiratory Syndrome (MERS), an illness caused by MERS Coronavirus (CoV). The annual Hajj or pilgrimage to Mecca, Saudi Arabia will take place from approximately August 19-24, 2018. In previous years, state and local health departments have seen an increase in patients under investigation (PUIs) for MERS two to three weeks following the completion of Hajj as travelers return to the United States (U.S.). **We advise healthcare providers to consistently collect travel history information during the clinical evaluation of patients. Patients who have the clinical features and an epidemiologic risk for MERS must be promptly reported to the District of Columbia Department of Health (DC Health).**

Background
MERS is an illness caused by a virus first reported by health officials in Saudi Arabia in September 2012[1]. All reported cases have been linked to countries in and near the Arabian Peninsula (listed below). MERS patients have ranged in age from younger than one to 99 years old[1]. Most hospitalized MERS patients have had chronic co-morbidities[1]. Among confirmed MERS cases reported to date, the case fatality proportion is approximately 35%[2]. No vaccines or specific treatment for MERS infection is currently available. Clinical management includes supportive management of complications and implementation of recommended infection prevention and control measures.

Limited clinical data for MERS patients are available; most published clinical information to date is from critically ill patients. At hospital admission, common signs and symptoms include fever, chills/rigors, headache, non-productive cough, dyspnea, and myalgia. Other symptoms can include sore throat, coryza, nausea and vomiting, dizziness, sputum production, diarrhea, vomiting, and abdominal pain. Atypical presentations including mild respiratory illness without fever and diarrheal illness preceding development of pneumonia have been reported. MERS is thought to spread from an infected person's respiratory secretions, such as through coughing. However, the precise ways the virus spreads are not currently well understood.

It is important for healthcare facilities to apply infection control procedures and protocols including environmental and engineering controls, administrative controls, safer work practices, and personal protective equipment (PPE) for patients hospitalized with MERS. Ensure facility policies and practices are in place to minimize exposures to MERS-CoV. Measures should be implemented before patient arrival, upon arrival, and throughout the duration of the affected patient's presence in the healthcare setting. For more information, please review the following:
https://www.cdc.gov/coronavirus/mers/infection-prevention-control.html.

Recommended Actions for Healthcare Providers

1. **Consider MERS testing for patients who meet the criteria for a Patient Under Investigation (PUI).** The Centers for Disease Control and Prevention (CDC) recommends that healthcare

providers consider a PUI if they have both the clinical features and epidemiologic risk for MERS described in the scenarios below (https://www.cdc.gov/coronavirus/mers/interim-guidance.html):

Clinical Features		Epidemiologic Risk
Severe illness Fever and pneumonia or acute respiratory distress syndrome (based on clinical or radiological evidence)	**and**	A 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 state and local health departments in the US.
Milder illness Fever and symptoms of respiratory illness (not necessarily pneumonia; e.g., cough, shortness of breath**)**	**and**	A history of being in a healthcare facility (as a patient, worker or visitor) within 14 days before onset in a country or territory in or near the Arabian Peninsula in which recent healthcare-associated cases of MERS have been identified.
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

Important Notes:

- **Countries considered in or near the Arabian Peninsula:** Bahrain; Iraq; Iran; Israel; West Bank and Gaza; Jordan; Kuwait; Lebanon; Oman; Qatar; Saudi Arabia; Syria; the United Arab Emirates (UAE); and Yemen
- **Fever** may not be present in some patients, such as those who are very young, elderly, taking certain medications or immunosuppressed. Clinical judgement should be used to guide the testing of patients in such situations.
- **Close contact** is defined as:
    - 1) being within approximately 6 feet (2 meters), or within the room or care area, of a confirmed MERS case for a prolonged period of time (such as caring for, living with, visiting, or sharing a healthcare waiting area or room with, a confirmed MERS case) while not wearing recommended PPE (e.g., gowns, gloves, NIOSH-certified disposable N95 respirator, eye protection);

    -or-

    - 2) having direct contact with infectious secretions of a confirmed MERS case (e.g., being coughed on) while not wearing recommended PPE.

The above criteria serve as guidance for testing; however, patients should be evaluated and discussed with DC Health if their clinical presentation or exposure history is equivocal (e.g., uncertain history of healthcare exposure).

2. **Promptly report PUIs for MERS to DC Health**
    - All PUIs for MERS must be reported to DC Health **immediately** by calling 202-442-9370 (8:15am-4:45pm) or 844-493-2652 (after business hours) **and** submitting a Notifiable Disease and Condition Case Report Form **online**.

- Access the form using our online reporting system **DC Reporting and Surveillance Center (DCRC):**

https://dchealth.dc.gov/service/infectious-diseases

- DC Health will assist with coordinating clinical sample testing for MERS or consultation with CDC

Specimen Collection Guidelines

1. Collection of **all three** of the following specimen types is recommended:
   - **Lower respiratory tract specimen (**broncheoalveolar lavage, tracheal aspirate, pleural fluid and sputum)
     - Collect 2-3 mL of bronchoalveolar lavage, tracheal aspirate, pleural fluid into a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container
     - If sputum is collected then induced sputum is preferred (DC Public Health Laboratory will test any type of sputum specimens)
     - If expectorated sputum is collected then have the patient rinse the mouth with water and then expectorate deep cough sputum directly into a sterile, leak-proof, screw-cap sputum collection cup or sterile container
   - **Upper respiratory tract specimen (**nasopharyngeal swab AND oropharyngeal swab [NP/OP])
     - Use synthetic swabs with plastic shafts only. DO NOT use calcium alginate or swabs with wooden shafts as they may contain substances that inactive some viruses and inhibit PCR testing
     - Place swabs immediately into sterile tubes containing 2-3 mL of viral transport media
   - **Serum (for rRT-PCR testing)**
     - Children and adults: collect 1 tube (5-10 mL) of whole blood
     - Infants: collect a minimum of 1 mL of whole blood in a serum separator tube if possible
2. For short periods (<72 hours), most specimens should be held at 2-8°C. For delays exceeding 72 hours, freeze specimens at -70°C.
3. For detailed information about specimen collection, please refer to: https://www.cdc.gov/coronavirus/mers/guidelines-clinical-specimens.html

References

1. CDC "Middle Eastern Respiratory Syndrome(MERS)" https://www.cdc.gov/coronavirus/mers/about/index.html
2. CDC "MERS Clinical Features" https://www.cdc.gov/coronavirus/mers/clinical-features.html

Additional Information and Resources

- Information for healthcare providers: https://www.cdc.gov/coronavirus/mers/interim-guidance.html
- Information for travelers: https://wwwnc.cdc.gov/travel/notices/watch/hajj-umrah-saudi-arabia
- Infection Prevention and Control Recommendations: https://www.cdc.gov/coronavirus/mers/infection-prevention-control.html

Please contact the DC DOH Division of Epidemiology–Disease Surveillance and Investigation at:
Phone: 202-442-9370 (8:15am-4:45pm) | 844-493-2652 (after-hours calls)
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