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Community Health Care Association of New York State
NEW Directions
in Emergency Preparedness

## Biosurveillance Update – May 22, 2014

**MERS-CoV**
In the Middle East, the number of patients infected with the Middle Eastern Respiratory Syndrome – Coronavirus (MERS-CoV) has continued to grow, increasing sharply since March. The reported cases have been mostly limited to the countries centered in Saudi Arabia and United Arab Emirates (UAE). A small number of cases have been reported in Western Europe, Malaysia, Egypt, and recently, in the United States.

MERS-CoV is a novel respiratory virus, first reported to cause disease in humans in 2012. It is believed to be zoonotic, with the camel as the initial reservoir. It is part of the Coronavirus family and exhibits symptoms similar to those of influenza and/or Acute Respiratory Distress Syndrome (ARDS), including fever, malaise, respiratory distress signs and symptoms, renal failure, consumptive coagulopathy, pericarditis, rhinorrhea and occasional gastrointestinal symptoms. The mortality rate has recently decreased and is currently about 25-30%, with 139 deaths out of 538 cases reported (CDC estimates). Asymptomatic cases associated with this outbreak (21%, n=110) have been discovered through public health contact tracing in the Middle East. While the mode of transmission is not yet well understood, there does not seem to be widespread human-to-human transmission in the community. However, human-to-human transmission has occurred within the healthcare setting and among families living with or caring for a sick family member.

The median age of patients with laboratory-confirmed MERS-CoV infections is 49 years of age (range = 1-94 years of age). Of the total number of cases reported, 104 (19%) have been healthcare workers caring for infected patients in the Middle East. Of all cases reported, 62% required hospitalization with severe ARDS.

The New York City Department of Health and Mental Hygiene issued an alert on May 13th regarding the presentation of two MERS-CoV positive patients, both healthcare workers, who arrived in the United States on flights that originated in Saudi Arabia. The first case, reported in Indiana, involved a person who traveled on commercial flights between Saudi Arabia and the UK and between the UK and Chicago while he was symptomatic and potentially contagious. He then traveled for 70 minutes by bus from Chicago to his final destination in Indiana. All passengers who shared these modes of transportation have been tested and tracked by Indiana public health agencies and have not yielded any new cases of MERS-CoV. However, a close business associate of the Indiana case, with whom the patient had face-to-face contact in Chicago, did exhibit MERS-CoV symptoms and antibodies and has been placed in self-isolation until more testing is completed. The second reported case involved a person who traveled by plane from Saudi Arabia through the UK to Boston, then to Atlanta, then to his final destination of Orlando, Florida. This case, also symptomatic during travel, was afebrile upon presentation to the Orlando hospital. Florida public health officials have tracked all persons on these planes and testing has not yielded any positive MERS-CoV cases. The two aforementioned cases are not linked. A third possible third case, reported in the continental United States within the last couple of weeks, involves no travel to the Arabian Peninsula. As of yet, no travel restrictions have been issued for persons traveling to and from the Middle East.

Since New York is one of the largest points of entry for flights originating in the Middle East, it is conceivable that infected travelers might present in the New York area. Also, New York clinicians should be aware that Ramadan-related travel to and from the New York area will be occurring in June and July. Health centers in New York should be prepared to consider, detect, and manage cases of MERS-CoV if they present. Preparedness procedures or initial management of suspected cases or cases that present

with ILI symptoms at health centers should include the following:

- all infection control procedures, including washing hands often, avoiding close contact with patients who are sick, disinfecting frequently touched surfaces, and avoiding touching eyes, mouth, and/or nose with unwashed hands, should be followed closely.

- Infection control procedures should include the wearing of PPE by patients and health center workers and standard, contact, and airborne precautions, including the use of eye protection, should be taken.

- Ask about the patient's or relative's recent travel history to the Arabian Peninsula. Recent travel within 14 days should be noted. Immediately report all patients with the appropriate travel history who present with severe acute respiratory illness.

- When possible, acquire both lower and upper respiratory tract specimens for diagnosis. Please pack them in viral transport media and send them to your local public health laboratory. Do not perform viral cultures.

In New York City, please report any suspected cases by calling 1-866-692-3641. **Click here** to obtain posters for your health center.

Other resources include the following:

- **Click here** to access MERS-CoV guidance from the CDC.

- **Click here** for MERS-CoV information from the World Health Organization.

- To access a CDC checklist of healthcare facility preparedness for MERS-CoV, please **click here**.

If your health center has any questions about preparedness, please contact Mario Gonzalez at mgonzalez@chcanys.org.