

## Update on Middle East Respiratory Syndrome Coronavirus (MERS-CoV)

Monday, June 10, 2013

### Target audience: Clinical laboratories

#### Background:

Since April 2012, Middle East Respiratory Syndrome Coronavirus (MERS-CoV) has been confirmed in 8 countries: France, Italy, Jordan, Qatar, Saudi Arabia, Tunisia, United Kingdom (UK) and United Arab Emirates (UAE). Of 55 laboratory-confirmed cases, 31 were fatal for a case fatality rate of 56% (current CDC data June 7, 2013).

Although **no cases have been reported in the US** as of June 7, 2013, healthcare providers should remain alert for patients with possible MERS-CoV, formerly called “novel coronavirus”, or “nCoV”.

#### Key Points:

- FDA has now issued Emergency Use Authorization for the CDC MERS-CoV PCR Assay.
- MDCH laboratory has received the MERS CoV PCR reagents. Testing may now be performed at the MDCH laboratory; however, consultation and prior authorization are still required before specimens will be accepted.

#### CDC Case Definitions:

Patients who meet the criteria (below) for investigation of MERS-CoV infection should be reported to the local health department and to MDCH Communicable Disease Division at 517-335-8165 for testing authorization:

A person with an acute respiratory infection, which may include fever ( $\geq 38^{\circ}\text{C}$  ,  $100.4^{\circ}\text{F}$ ) 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 (Bahrain, Iraq, Iran, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian territories, Qatar, Saudi Arabia, Syria, the United Arab Emirates (UAE), and Yemen) within 14 days;

**AND**

- not already explained by any other infection or etiology, including all clinically indicated tests for community acquired pneumoniae (e.g., Influenza A and B, respiratory syncytial virus, adenovirus, *S. pneumoniae* and *L. pneumophila*) according to local management guidelines.

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

- Persons who develop severe acute lower respiratory illness of known etiology within 14 days after travel from the Arabian peninsula or neighboring countries but do not respond to appropriate therapy;

**OR**

- People who develop 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:

- Any person including a healthcare worker or family member who provided care for the patient, or had similarly close physical contact; or who stayed at the same place (e.g. lived with, visited) as the patient while the patient was ill.

### **Steps for laboratories to take now:**

No action is required at this time, other than to monitor the situation and be aware of current guidance.

### **Specimen Recommendations:**

To increase the likelihood of detecting MERS CoV, CDC recommends collection of specimens from different sites – for example a nasopharyngeal swab and a lower respiratory tract specimen such as sputum, bronchoalveolar lavage, bronchial wash, or tracheal aspirate. Specimens should be collected at different times after symptom onset, if possible. Lower respiratory tract specimens should be a priority for collection and PCR testing.

### **Infection Control:**

There is clear evidence of limited human-to-human transmission. Until the characteristics of transmission are better understood, patients under investigation and probable and confirmed cases should be managed in healthcare facilities using standard, contact, and airborne precautions. These recommendations will be re-evaluated and updated as needed.

More information is available on the CDC MERS website at:

<http://www.cdc.gov/coronavirus/mers/case-def.html>

or see MMWR from June 7, 2013:

<http://www.cdc.gov/mmwr/pdf/wk/mm62e0607.pdf>

## **Questions and Additional Information**

For laboratory related questions, please contact

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To report a possible case, please call

MDCH Communicable Disease Division

517-335-8165