SAN LUIS OBISPO COUNTY
Messenger
Public Health Laboratory

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MERS-CoV Corona Virus

As of June 14, 2013, the World Health Organization (WHO) has received 58 case reports of a novel coronavirus, now known as Middle East Respiratory Syndrome Coronavirus (MERS-CoV). Cases have been reported in Saudi Arabia (43), Jordan (2), Qatar (2), the United Arab Emirates (1), the United Kingdom (3), Italy (3), France (2), and Tunisia (2). With 33 deaths among the cases, the case fatality rate is about 57%.

There have also been reports of healthcare-associated transmission of MERS-CoV in several countries. Limited person-to-person transmission of MERS-CoV has been documented, but without sustained transmission. On May 15, MERS-CoV infection was confirmed in two healthcare workers exposed to MERS-CoV-infected patients. In one case in France, healthcare-associated transmission to the roommate of a MERS-CoV patient occurred. Since the beginning of May 2013, a total of 21 cases of MERS-CoV infection, nine fatal, have been reported from a single outbreak linked to a healthcare facility in Saudi Arabia. Public Health authorities are recommending heightened surveillance, infection control, and laboratory precautions to prevent the spread of this novel virus.

No cases of MERS-CoV have been identified in the United States as of June 14, 2013. However, with ease of international travel and the potential for this virus to be transmitted in healthcare settings, CDC is encouraging healthcare facilities to contact public health authorities when encountering individuals who develop severe acute lower respiratory illness within 14 days (recently increased from 10 days) of travel in the Arabian Peninsula or neighboring countries. It is noteworthy that many patients have symptoms of diarrhea in the absence of or before the development of respiratory symptoms. The incubation period is currently estimated to range from one to nine days, and illness can vary from mild to severe.

Laboratory Testing for MERS-CoV

Unlike SARS, MERS-CoV appears to be isolated and propagated 'relatively easily' in viral tissue cultures. Therefore, CDC advises that **viral isolation not be performed on specimens** from suspect MERS-CoV cases (unless performed in a Biosafety Level-3 facility).

The CDC has developed and received FDA Emergency Use Authorization (EUA) for a reverse-transcription PCR assay that is being distributed to all state public health laboratories, including the California Public Health Laboratory. At present, the only source of validated testing for this new virus is through public health laboratories. Recommended specimens are lower respiratory tract specimens, but upper respiratory tract specimens and stool specimens are also acceptable.