



Updates on MERS – May 2, 2014

MERS-CoV Found in the U.S.

The Centers for Disease Control and Prevention is reporting the first case of Middle Eastern Respiratory Syndrome caused by the Corona Virus, otherwise known as MERS-CoV.

The CDC states that a man has tested positive in Indiana after a recent trip to Saudia Arabia. The man arrived in the United States approximately one week ago after a layover in London. He eventually landed in Chicago and then took a bus to Indiana. He was apparently NOT ILL while on the flights and only became symptomatic after arriving in Indiana.

What should EMS Know and Do?

What to Look for in a Patient with MERS-CoV:

The Case Definition, called the “Patient Under Investigation” for MERS-CoV, produced by the CDC defines the characteristics to be aware of when taking care of patients with respiratory complaints. It is listed here.

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

Patient Under Investigation (PUI)

A patient under investigation (PUI) is a person with the following characteristics:

- Fever ($\geq 38^{\circ}\text{C}$, 100.4°F) AND pneumonia or acute respiratory distress syndrome (based on clinical or radiological evidence);

AND EITHER

- History of travel from countries in or near the Arabian Peninsula¹ within 14 days before symptom onset;

OR

- Close contact² 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

- Is 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

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EMS agencies should institute protective measures including:

1. EMS providers should be made aware of this symptoms of MERS-CoV and ask patients that present with a fever and respiratory distress whether they have traveled to the Middle East recently or have been around anyone who has traveled to the Middle East and is now sick with a respiratory disease
2. Practice good contact and respiratory isolation procedures. As with any infectious disease that can potentially be transmitted by air, EMS workers should use appropriate PPE including gloves and a mask, preferably an M95. If an M95 is not available then a simple face mask should be used
3. If a patient is suspected of having MERS-CoV, make sure to alert the receiving hospital so appropriate isolation procedures can be provided including a negative pressure isolation room.
4. Make sure to decontaminate any equipment used on a suspected case of MERS-CoV
5. Report any suspected cases of MERS-CoV to the local health department
6. EMS agencies should be aware of any increase in volume of respiratory complaints within their service area and report any anomalies to the local public health department

More information about protective measures can be found at the CDC website <http://www.cdc.gov/coronavirus/mers/infection-prevention-control.html>

Background:

MERS-CoV is a Corona virus, which is the same virus that causes the common cold but also more deadly strains such as SARS from 2003.

Saudi Arabia has been the epicenter for the outbreak of MERS where there have been approximately 350 persons infected and over 100 dying from the infection. Just days ago the Saudi Ministry of Health (MOH) reported 4 cases in Jeddah, 3 in Riyadh, and 3 in Mecca. Cases have been found throughout the Middle East, Europe and the Far East.

According to the European Center of Disease Control (ECDC):

- The number of reported cases increased markedly in April 2014 with 217 cases and 38 deaths. Between March 2013 and March 2014 the monthly average number of reported cases was 15.
- As of 30 April 2014, the case-fatality ratio is 31 %. The male to female ratio is 2:1. Among the 419 cases with known age, the mean age is 49 years. Median age was 50 (range 1-94 years) and 393 (94%) were older than 19 years.

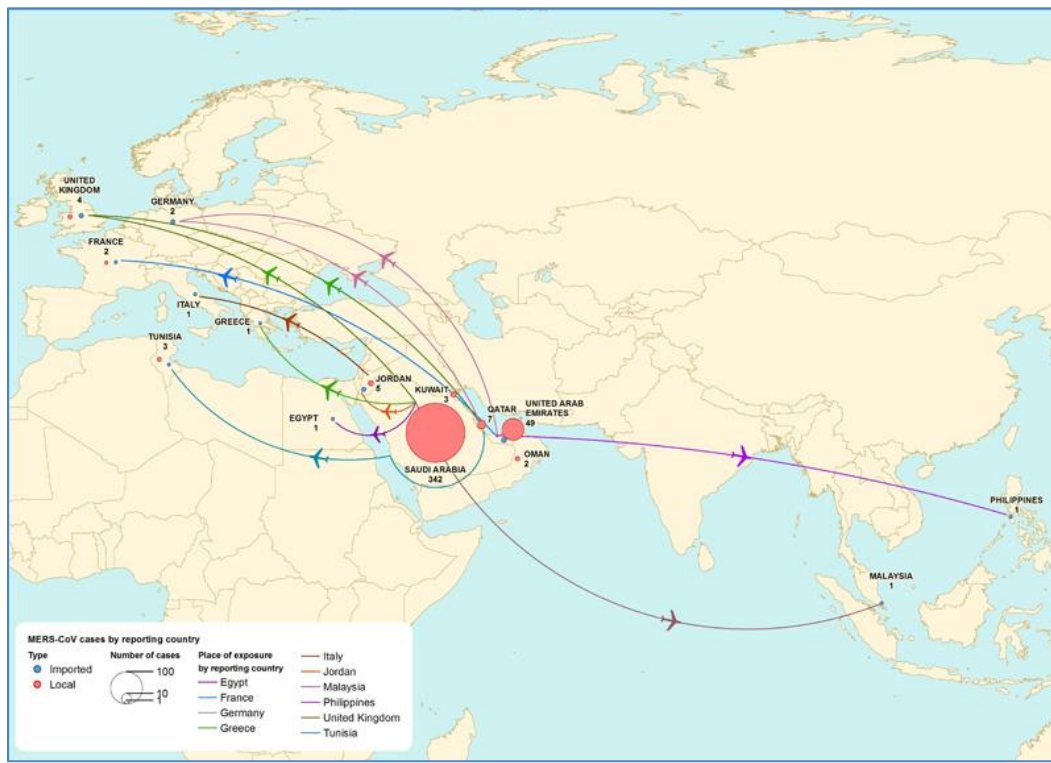
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Though a very lethal virus, most experts believe MERS-CoV is difficult to transmit from person to person and usually occurring with close contacts with infected persons. Because of this, healthcare workers taking care of patients with MERS-CoV have reported a significant number of infections.

The virus can survive on surfaces, and might spread when people touch something contaminated. The virus has spread many times in hospitals, dialysis centers and other healthcare facilities making infection control critical to preventing the spread.

There is no vaccine for MERS-CoV

Map of cases by reporting country (from CDC prior to the new case in the USA)



This posting will be updated as more information becomes available.