



The E - Bulletin is a service provided from the in-house team of physicians (Specialists, GP's & the CEDARS Training Center) at the **CEDARS – Jebel Ali International Hospital** in order to raise awareness about health issues.

What is MERS?

Middle East respiratory syndrome (MERS) is a viral respiratory disease caused by a novel coronavirus (MERS-CoV) that was first identified in Saudi Arabia in 2012. Coronaviruses are a large family of viruses that can cause diseases ranging from the common cold to Severe Acute Respiratory Syndrome (SARS).

Coronaviruses are a large family of viruses that can cause a range of illnesses in humans, from the common cold to severe acute respiratory syndrome (SARS). These viruses also cause disease in a wide variety of animal species.

In late 2012, a novel coronavirus that had not previously been seen in humans was identified for the first time in a resident of the Middle East. The virus, now known as the Middle East Respiratory Syndrome (MERS-CoV). MERS-CoV is different from any other coronavirus that has been previously found in people.

What are its symptoms?

Symptoms normally includes fever, cough, and shortness of breath although a number of secondary complications have also been reported, including acute renal failure, multi-organ failure, acute respiratory distress syndrome (ARDS), and consumptive coagulopathy. In addition, many patients have also reported gastrointestinal symptoms, including diarrhoea.

More than half of infected patients have died. The majority has had at least one comorbid condition, but many have also been in previous good health.

How people get infected?

A considerable proportion of MERS-CoV cases have been part of clusters in which limited non-sustained human-to-human transmission has occurred. Human-to-human transmission has occurred in health care settings, among close family contacts, and in the work place. Sustained transmission in the community beyond these clusters has not been observed and would represent a major change in the epidemiology of MERS-CoV.

A number of unanswered questions remain on the virus

- Reservoir -Virus is inhabiting for a period
- How seemingly sporadic infections are being acquired
- Mode of transmission from animals to humans and between humans.
- Clinical spectrum of infection.
- Incubation period.

How do we now if a person has been infected or not?

Confirmed Case - A person with laboratory confirmation of infection with the Middle East respiratory syndrome coronavirus (MERS-CoV).





Probable Case

- A person with an acute respiratory infection "which may include history of fever" with clinical, radiological, or histopathological evidence of pulmonary parenchymal disease (e.g. pneumonia or Acute Respiratory Distress Syndrome, (ARDS); who requires admission to hospital AND
- A person with an acute respiratory infection "which may include history of fever" with clinical, radiological, or histopathological evidence of pulmonary parenchymal disease (e.g. pneumonia or Acute Respiratory Distress Syndrome, (ARDS); who requires admission to hospital AND
- A person with an acute respiratory infection not already explained by any other infection or etiology, including all clinically indicated tests for community-acquired pneumonia, AND
- Close contact with a laboratory-confirmed case.



Close contact includes:

- Anyone who provided care for the patient, including a health care worker or family member, or who had other similarly close physical contact;
- Anyone who stayed at the same place (e.g. lived with, visited) as a probable or confirmed case while the case was symptomatic.
- Any one who is working with the patient in a close environment i.e. school;
- History of travel with the patient by any way of transport.
- Contact with patient is within 14 days either before or after appearance of patient symptoms.



How is the virus transmitted?

Coronaviruses are transmitted by the respiratory aerosol. Multiple clusters of cases in which human-to-human transmission is either strongly suspected or confirmed have been noticed. These have all occurred either in a health care facility or among close family members. However, the mechanism by which transmission occurred in all of these cases, whether respiratory (e.g. coughing, sneezing) or contact (contamination of the environment by the patient), is not fully understood. No evidence of sustained transmission beyond clusters transmission.



Epidemiology

Several countries in the Middle East have reported cases of human infection with nCoV, including Jordan, Qatar, Saudi Arabia, and the United Arab Emirates. Cases have also been reported by three countries in Europe - France, Germany, and the United Kingdom - and from Tunisia. All of the European and the Tunisian cases are associated with travel or contact with a returned infected traveller. As of 23 July 2013, 90 laboratory-confirmed cases of human infection with novel coronavirus (nCoV), with 45 deaths.

Clinical Findings

It is a respiratory infection symptom; in confirmed cases patients had a fever, cough, shortness of breath and breathing difficulties.

- All have respiratory disease presented with mild symptoms to severe pneumonia
- Most patients have had pneumonia.
- Many have also had gastrointestinal symptoms, including diarrhea. Some patients have had kidney failure.
- In confirmed cases patients had a fever, cough, shortness of breath and breathing difficulties
- Atypical symptoms can be predominant if immunocompromised.



Treatment & Prevention

- There is no antiviral therapy or vaccine available.
- General care and supportive therapy can be life saving
- No approved virus-specific therapy at this time,
- Patient isolation in Airborne Infection Isolation Room (AIIR)



Prevention and Public Education

- Avoid close contact, when possible, with anyone who shows symptoms of illness (coughing and sneezing)
- Maintain good hand hygiene



- Other good preventive measures especially for travellers include avoiding uncooked or undercooked meats, unwashed fruits or vegetables, use of bottle water and sterilized water.
- While travelling, avoid close contact with other people if you have any respiratory symptoms, and use good respiratory hygiene, such as coughing or sneezing into a sleeve or flexed elbow, medical mask, or tissue, and throwing used tissues into a closed bin immediately after use.

The chances of contracting the virus are small. However, people who meet the following criteria should see a doctor as soon as possible:

- People with breathing difficulties that are not explained by any other illness or virus who have recently travelled to the Middle East.
- Ill people who are immunocompromised and have recently travelled to the Middle East should be examined promptly by their physician regardless of the type of illness they have.



For those who wish to be tested for MERS, CEDARS - Jebel Ali International Hospital offers facility for sample collection. This is then submitted to government hospital for testing. ❖

Sources:

DHA guideline for syndrome coronavirus (MERS-CoV)
www.who.int/csr/disease/coronavirus_infections/faq/en/

Medical Consultants for May 2014



Aryamol Sasidharan
Infection Control Nurse

Aryamol Sasidharan works as Infection Control Nurse at CEDARS – Jebel Ali International Hospital. She is responsible for preparing and implementing all infection control related policies and procedures in the hospital; she gives infection control related training to the employees on a regular basis and implements programs related to infection control to protect the healthcare workers, visitors and others. She is also in-charge of all infectious related patients. She is a member of Infection Control Committee and Quality department. Prior to that, she was working as staff nurse in Out-patient Department. She also has worked as OT staff nurse in Cosmopolitan Hospital, Trivandrum, Kerala, India and at Sree Ramakrishna Ashrama Charitable Hospital as Staff Nurse in Labour Room, Medical and Surgical Wards.

She graduated with Diploma in General Nursing and Midwifery from Sree Sarada School of Nursing, Trivandrum, India.



Dr. Amal Amer
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Dr. Amal Mohamed Ameen Amer has previously worked in different hospitals and laboratories in Egypt as clinical pathologist. She also worked as a blood banking doctor in National Blood Transfusion Center, Egypt.

She received her Bachelor Degree in Medicine and Master Degree in Clinical Pathology in Ain Shams University, Egypt.

Dr. Amal speaks fluent English and Arabic.

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CEDARS - Jebel Ali International Hospital is a full-fledged multi-specialty hospital offering services ranging from Pediatrics to Occupational Health, Laparoscopic Surgery to Internal Medicine. The Hospital is equipped with ICU for medical and surgical emergencies, with two major and one minor operation theatres and runs fully equipped Laboratory and Radiology departments. CEDARS – Jebel Ali International Hospital is accredited by JCI and located next to JAFZA Gate 2.