

## Current major event

### Hospital outbreak of MERS-CoV in Saudi Arabia

In recent time, two concurrent hospital outbreaks from Middle East respiratory syndrome coronavirus (MERS-CoV) infection were reported from Hofuf city of Al-Ahssa region in the Kingdom of Saudi Arabia (KSA).

### Editorial note

Like the past three years, a surge from the MERS-CoV infections during the spring time this year was expected. However no significant increase in number of community acquired or secondary hospital acquired cases occurred during the spring time this year.

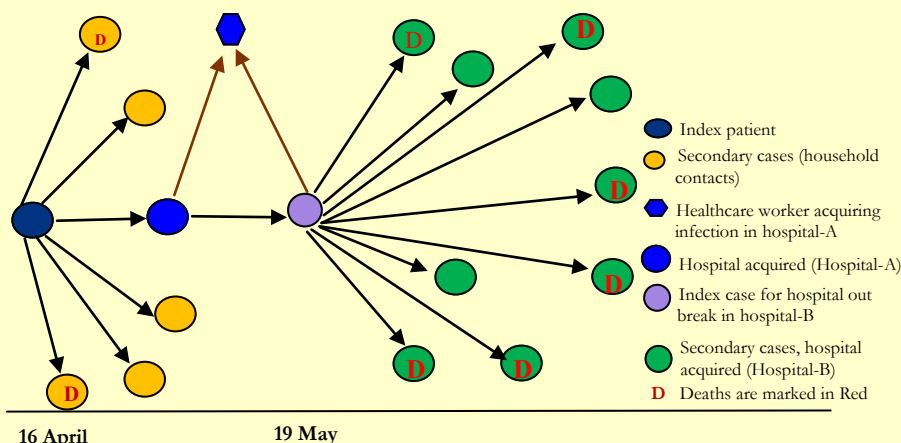
Despite this relatively calm and quiet period, two hospital outbreaks and one household cluster of community acquired infections of MERS-CoV were reported from Hofuf city of Al-Ahsaa region in KSA during the period of mid-April to end May.

The household cluster includes at-least 6 secondary cases, of which two died. It appears from the transmission map (please see above), that the index patient in this community outbreak had the onset of respiratory symptoms on 16 April who acquired the infection in the community. This index patient was admitted in hospital-A. However six close contacts of this index patient (family members), later on, developed symptoms in the household and were admitted in the same hospital as that of the index patient. One healthcare worker who has attended one of these close contacts of index patient, later on, developed symptoms and became positive for MERS-CoV.

One of the patients, who eventually shared the same room or ward in Hospital-A was later transferred to another hospital which is a specialized cardiac center in the city (Hospital-B). This patient, later on, triggered at-least 9 more secondary cases in hospital-B, of which 6 patients eventually died.

This outbreak which includes one family cluster of at-least 7 cases and two nosocomial outbreaks—one in hospital-A and

Transmission map of recent hospital outbreak of MERS-CoV infection in KSA



### Recent hospital outbreaks reported from KSA in 2015 from the following regions:

- Al-Riyadh
- Qassim
- Al Jawaf
- Eastern region
- Hofuf

the other in hospital-B, therefore resulted in at-least 18 secondary cases including at-least 8 deaths.

Previous nosocomial outbreaks of MERS-CoV infections are common and have been reported from the KSA in the past including in the recent past (please see the box above). The current hospital outbreaks once again emphasize the importance of stringent hospital infection control measures. Measures should include keeping the patients in well ventilated rooms, applying standard precautions such as droplet and contact precautions for all patients irrespective of the diagnosis as well as air-borne precautions while performing aerosol generating procedures. In addition it is also important to maintain administrative controls (such as triaging) and environmental controls (such as ensuring clean environment with adequate ventilation) and compliance with appropriate personal protective equipment.

MERS-CoV continues to remain a global threat. Every hospital outbreak and community cluster need to be investigated properly and timely as part of systematic global risk assessment and infection control measures will remain the key to prevent a global spread.

## Update on outbreaks in the Eastern Mediterranean Region

### MERS-CoV in Saudi Arabia, Qatar, UAE

### Current public health events of international concern [cumulative N° of cases (deaths), CFR %]

#### Avian Influenza : 2006-2015

Egypt (A/H5N1)	[336 (114), 24%]
Egypt (A/H9N2)	[2(0) ]

#### MERS-CoV: 2012-2015

Saudi Arabia	[1013 (435), 42.9%]
Jordan	[12 (6), 50%]
Oman	[6 (3), 50% ]
UAE	[71 (9), 12.7% ]
Kuwait	[3 (1), 33.3% ]
Tunisia	[3 (1), 33.3% ]
Qatar	[12 (4), 33.3%]
Yemen	[1 (1), 100%]
Egypt	[1 (0), 0%]
Lebanon	[1 (0), 0%]
Iran	[5 (2), 40%]

#### Ebola Virus Disease: 2014-2015

Guinea	[3641 (2420),66.4%]
Liberia	[10666 (4806),45%]
Sierra Leone	[12706 (3908),30.7%]
UK	[1(0) ]
Nigeria	[20 (8),40%]
Senegal	[1(0)]
Spain	[1(0)]
Italy	[ 1 (0)]
USA	[4(1),25%]
Mali	[8(6),75%]

#### Wild poliovirus: 2014-2015

Pakistan	[325 (0) ]
Afghanistan	[29(0)]