

Current major event

Hospital outbreak of MERS in Buridah City

After some quiet period, a new cluster of MERS cases has been reported from Buridah city of Qassim region. A number of cases are also linked to a hospital outbreak which is ongoing since February 2016. As of 13 March 2016, a total of 23 cases of MERS including 7 deaths were reported. Of these reported case, six were healthcare workers.

Editorial note

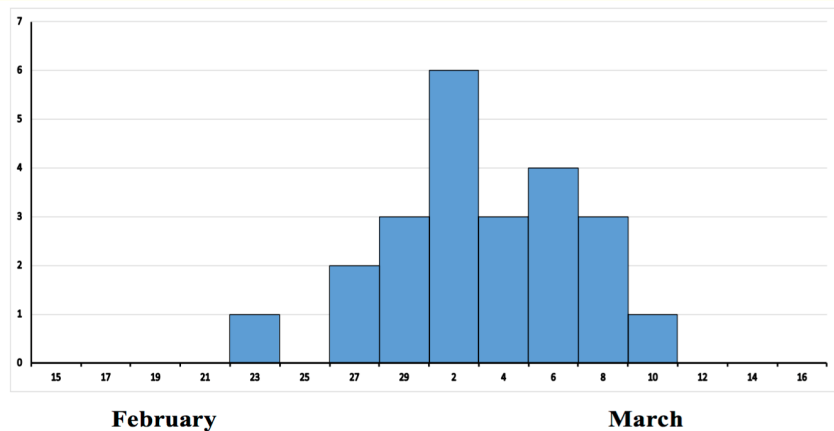
Since the emergence of Middle East respiratory syndrome coronavirus (MERS-CoV) in 2012, hospital outbreaks of MERS has been a perennial threat. primarily from nosocomial transmissions in healthcare settings.

Last year, between 10-20 small to large scale hospital outbreaks were reported in the Kingdom of Saudi Arabia from MERS-CoV (*Please see the table*). The last major hospital outbreak was reported at the National Guards Hospital in Riyadh in Saudi Arabia during August-September 2015. Since then, no major hospital outbreak was reported from Saudi Arabia in 2015.

The current outbreak, probably began in February (*Please see the epidemic curve above*). However, it is not certain which was the index case. Till 13 March, a total of 23 cases were reported from Buridah many of which were linked to an ongoing hospital outbreak in the same city. Of these cases, 5 were primary cases, 12 secondary and 6 were healthcare workers— all linked to this hospital outbreak. According to the sources of the MoH, the outbreak is still ongoing and the report of outbreak investigation is yet to be made available.

One of the important knowledge gained last year during these nosocomial outbreaks was the underlying risk factors and breaches in infection control practices that result in such frequent nosocomial outbreaks. It was reported last year through some epidemiological studies and also through case –series analysis that overcrowding, lack of proper assessment and triaging of patients with pneu-

Figure 1: Outbreak of MERS in Qassim Region by Date of Onset (February–March, 2016)



Recent hospital outbreaks were reported from KSA in 2015 from the following region :

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

monia, uncontrolled patient movement, absence of patient cohorting, poor compliance to infection control practices by healthcare workers and weak surveillance system to actively follow up and identify cases with nosocomial risk were the main underlying reasons for repeated hospital outbreaks from MERS-CoV. Luckily, during these outbreaks, no evidence of viral mutations were seen. The lessons that were learnt from these outbreaks also show that early recognition of suspected case, appropriate triaging and isolation of suspected patient and rapid implementation of appropriate infection control measures were linked to interruption of transmission from MERS-CoV in hospitals

The epidemiology of MERS has not changed over time. Although no sustained human-to-human transmission have so far been seen with MERS, secondary transmissions, in health-care settings, often resulting in small to large nosocomial hospital outbreaks have remained a perennial threat. As the present knowledge on underlying risk factors of hospital outbreaks from MERS is quite comprehensive, it is important that these lessons are applied consistently and uniformly across all healthcare settings in Saudi Arabia to prevent such nosocomial outbreaks.

Update on outbreaks

in the Eastern Mediterranean Region

MERS-CoV in Saudi Arabia; undiagnosed viral haemorrhagic fever in Sudan

Current public health events of international concern

[cumulative N° of cases (deaths), CFR %]

Avian Influenza : 2006-2016

Egypt (A/H5N1)	[346 (117), 33.8%]
Egypt (A/H9N2)	[3 (0)]

MERS-CoV: 2012-2016

Saudi Arabia	[1277 (549), 42.9%]
Jordan	[39 (12), 31%]
Oman	[7 (3), 42.8%]
UAE	[78 (11), 14.1%]
Kuwait	[3 (1), 33.3%]
Republic of Korea	[186 (36), 19.3%]
Qatar	[14 (5), 35%]
Iran	[6 (2), 33.3%]

Ebola Virus Disease: 2014-2016

Guinea	[3804 (2536),66.6%]
Liberia	[10675 (4809),45%]
Sierra Leone	[14124 (3956),28%]

Viral Haemorrhagic Fever (of unknown aetiology)

Sudan	[561 (101),26.3%]
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Wild poliovirus: 2014-2016

Pakistan	[367 (0)]
Afghanistan	[50(0)]

Lassa fever: 2015-2016

Nigeria	[159(82), 51.5%]
Benin	[71 (23),32.3%