

Current major event

MERS cluster in Wadi Aldwaser, Saudi Arabia

In February 2019, the Ministry of Health of Saudi Arabia reported a cluster of Middle East respiratory syndrome (MERS) infection in Wadi Aldwaser city. Between 29 January and 16 February 2019, a total of 42 cases of MERS including 5 deaths were reported (CFR: 11.9%) from this cluster. Of these cases, 9 are healthcare workers.

Editorial note

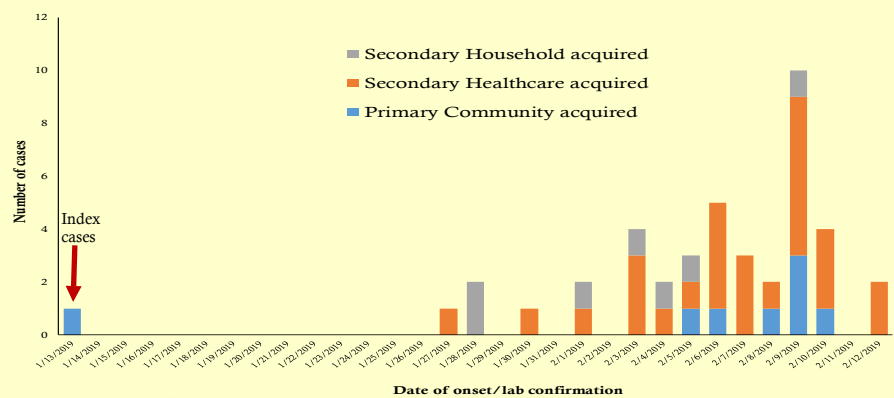
From September 2012 to 16 February 2019, a total of 2,353 laboratory-confirmed cases of Middle East respiratory syndrome coronavirus (MERS-CoV), including at least 820 deaths (CFR: 34.8%) were reported globally. Among these cases, 1,965 (83.5%) were reported from Saudi Arabia including at least 742 deaths (CFR: 37.76%).

Frequent occurrences of small sized hospital outbreaks characterize MERS' occurrence in Saudi Arabia. A total of 21 hospital outbreaks have occurred since 2015 resulting in 334 cases and 102 associated deaths (CFR: 30.5%) (*see table*). About 29.3% (98 cases) of these reported cases were healthcare workers (HCWs).

Between 29 January and 16 February 2019, 42 cases of MERS-CoV infection, including 5 deaths were reported (CFR: 11.9%) from Wadi Aldwaser city in Riyadh Region of Saudi Arabia. A total of 7 cases were sporadic primary cases while 35 were secondary cases who acquired the infection either in a hospital or at households (*see graph*). The transmission at households resulted in 7 secondary cases while 27 cases were healthcare-acquired who acquired the infection in Wadi Aldwaser hospital (7 hospital visitors, 11 patients and 9 HCWs). The 5 deceased cases were all patients with multiple comorbidities who acquired the infection during their hospital stay.

In response to this outbreak, the central rapid response team visited the hospital and launched a full-scale investigation. Follow-up of more than 300 community and health care contacts has been aggressive and currently ongoing. Terminal cleaning was carried out in the affected areas (ICUs and in ERs) and respiratory triage was enforced in all healthcare facilities in the region. Intensive infection control training to hospital staff was con-

MERS-CoV cases by date of onset/lab confirmation, Wadi Aldwaser 2019



Source: MOH, Saudi Arabia

Cases and deaths from Hospital outbreaks in Saudi Arabia, 2015-2019

Year	Hospital outbreaks	Total Cases	Survived	Died	HCW
2015	4	138	71	67	19
2016	6	60	46	14	26
2017	8	91	79	12	41
2018	2	10	6	4	3
2019	1	35	30	5	9
Total	21	334	232	102	98

ducted and additional staff were mobilized to support infection control activities. The teams from the Ministry of Agriculture visited the households of the primary cases and collected samples from the camels. Three camel samples were positive and these camels were quarantined, and movement of camels in and out of the market was restricted. All those control and preventive measures reduced the risk factors for exposure and also human-to-human transmission.

The city of Wadi Aldwaser has a history of reporting other cluster of MERS during February– April in 2017. A total of 15 cases (3 HCWs) and 1 associated death were reported from the city during that small hospital outbreaks.

The Ministry of Health of Saudi Arabia has accumulated ample experience in dealing with such nosocomial transmission. The situation has once again reminded us that triaging, early recognition, aggressive contact tracing and applying standard infection prevention and control measures in health care settings are some of the essential measures to prevent hospital outbreaks from MERS.

Update on outbreaks

in the Eastern Mediterranean Region

MERS in Saudi Arabia; **MERS** in Oman; **cholera** in Somalia; **cholera** in Yemen; **Multidrug-resistant typhoid fever** in Pakistan.

Current public health events of concern

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

Avian influenza: 2006-2017

Egypt (A/H5N1) [359 (122), 33.98%]

Egypt (A/H9N2) [4 (0)]

Ebola virus disease (EVD): 2018-2019

Democratic Republic of Congo (DRC) [838 (534), 63.72%]

Cholera: 2017-2019

Somalia [6 761 (46), 0.68%]

Yemen [1 429 758 (2 777), 0.19%]

Diphtheria: 2018-2019

Yemen [3 309 (191), 5.77%]

Bangladesh [8 435 (45), 0.53%]

MERS: 2012-2019

Saudi Arabia [1 965 (742), 37.76%]

Oman [21 (7), 33.33%]

Multidrug-resistant typhoid fever: 2016-2019

Pakistan [5 853 (0)]