Family cluster of MERS in Saudi Arabia

During the period from 17 May 2018 to 2 June 2018, Saudi Arabia reported a family cluster of Middle East respiratory syndrome (MERS) comprising of 11 laboratory-confirmed cases with no death in Najran, in the southwest part of the country. The index case had a history of direct contact with camels and consumption of raw camel milk, with a date of onset of symptoms on 17 May 2018.

Editorial note

Since the emergence of MERS in the Arabian peninsula in 2012 up to the first week of June 2018, a total of 2225 laboratory-confirmed cases of MERS, including 790 associated deaths have been reported globally (case-fatality rate-CFR: 35.5%). The majority of these cases were reported from Saudi Arabia with 1849 cases, including 716 related deaths (CFR: 38.7%).

MERS transmission in the community has been associated with direct contact with camels and sometimes with consumption of raw camel milk. Although sustained person-to-person transmission has not been recognized, hospital and household clusters of MERS has continued to be reported sporadically in Saudi Arabia. The disease appears to spread in clusters through patients in health facilities, and in households between family members who have close and unprotected contact with positive cases.

In the last week of May and first week of June 2018, a family cluster of 11 laboratory-confirmed MERS cases, with no reported death to date, was reported in Najran in the southwest part of Saudi Arabia. The assumed index case had a history of contact with camels and consumption of raw camel milk. The index case developed symptoms on 17 May 2018 and was hospitalized on 20 May 2018.

By 2 June 2018, seven symptomatic secondary cases as well as three asymptomatic tertiary cases were reported from this cluster. The date of onset of the last secondary case and last tertiary case was 29 May 2018. All secondary and tertiary cases were transferred to a referral hospital in Riyadh Region. The close contacts are being followed up closely by the Ministry of Health (MoH) in Saudi Arabia.

Recently, on 8 June 2018, a healthcare worker (HCW) in Najran Region was reported as a laboratory-confirmed case of MERS. He had a history of being involved in the investigation of the current family cluster of MERS in the same Region. Further investigation is ongoing to verify the link between the HCW and the family cluster.

From the beginning of 2018 to end of May, Saudi Arabia has reported 88 laboratory-confirmed cases of MERS including 25 deaths (CFR: 28.4%). These cases include 10 laboratory-confirmed cases related to two hospital outbreaks with 4 associated deaths (CFR: 40%); and 14 laboratory-confirmed cases related to two household clusters with no associated deaths, including the current family cluster.

For the past 6 years, MERS has remained a threat to the global health security. Many fundamental public health questions, including the mode of transmission of the disease, have not yet been answered. Overcoming these critical knowledge gaps through support of the global scientific research community remains a critical priority for effective control of this emerging high threat pathogen.