



## Risk assessment of Middle East Respiratory Syndrome Coronavirus (MERS-CoV): Update June 2015

### Epidemiological update

As of 9 June 2015, 1218 cases of MERS-CoV have been reported to WHO, with at least 449 related deaths. Cases of MERS-CoV continue to be reported from the Arabian Peninsula, with the vast majority of cases being reported from Saudi Arabia. Camels are an identified host, and the likely source of primary infection in some cases, however most cases are now due to human-to-human transmission. Large outbreaks linked to healthcare facilities have been reported, but there is no evidence of sustained community transmission.

### MERS-CoV in South Korea

On 20 May 2015, South Korea notified WHO of a case of MERS-CoV in a Korean national who had a travel history to Bahrain, the United Arab Emirates, Saudi Arabia and Qatar. The case visited four different healthcare facilities in South Korea, before being confirmed with MERS-CoV. As of 9 June 2015, a further 94 cases have been reported in South Korea, including one case that was exported to China. All cases have direct or indirect links to the index case through healthcare facilities, and there is currently no evidence of community transmission. Outside of the Arabian Peninsula this is the largest outbreak of MERS-CoV that has occurred to date. South Korea is now the country with the second highest number of MERS-CoV cases reported. The Korean authorities are following up thousands of contacts of cases in order to control the outbreak.

On 5 June 2015, ECDC released their 15th updated rapid risk assessment for MERS-CoV: <http://ecdc.europa.eu/en/publications/Publications/middle-east-respiratory-syndrome-coronavirus-rapid-risk-assessment-5-June-2015.pdf> It concluded that although the MERS-CoV cluster in South Korea is the largest that has so far been observed outside of the Arabian Peninsula, the cluster remains limited to patients, visitors to patients and healthcare workers in a few healthcare facilities, and close relatives of the cases. The outbreak does not represent an increased risk of infection for travellers or visitors to South Korea.

## Risk Assessment

There remains a risk of imported cases to the UK, and health professionals should remain vigilant. Early identification and implementation of infection control measures for suspected cases is crucial. Although the risk of an imported case from South Korea is very low, for the duration of the current outbreak a travel history to South Korea has been added to the MERS-CoV case definition.

The risk of infection with MERS-CoV to UK residents in the UK remains **very low**.

The risk of infection with MERS-CoV to UK residents travelling to the Middle East or South Korea remains **very low**.

The probability of MERS-CoV in those who come to the UK from, or return from, the Middle East or South Korea, and meet the case definition for a “case under investigation” is **low**, but requires testing for MERS-CoV infection.

The probability that a cluster of cases of severe acute respiratory infection of unexplained aetiology requiring intensive care admission is due to MERS-CoV remains **very low**, but warrants investigation and testing. A history of travel to the Middle East or South Korea would increase the likelihood of MERS-CoV.

The majority of outbreaks of MERS-CoV in the Middle East have been linked to healthcare settings. A WHO mission to Saudi Arabia concluded that gaps in infection control measures have most likely contributed to these outbreaks; reinforcing the importance of strict adherence to recommended infection control measures in healthcare facilities. So far, all cases in South Korea are linked to healthcare facilities. Where UK infection control procedures have been followed, the probability that a case of severe acute respiratory infection in a healthcare worker caring for a case of MERS-CoV or that severe acute respiratory infection of unknown aetiology in a healthcare worker is due to MERS-CoV is **very low**, but warrants testing. The risk will be higher in healthcare workers exposed to MERS-CoV who have not adhered to UK infection control procedures or not used adequate personal protective equipment.

The risk to contacts of confirmed cases of MERS-CoV infection is **low** but contacts should be followed up in the 14 days following last exposure and any new febrile or respiratory illness investigated urgently.

Further information and guidance on MERS-CoV are available on the PHE website:

<https://www.gov.uk/government/collections/middle-east-respiratory-syndrome-coronavirus-mers-cov-clinical-management-and-guidance>

## Travel Advice

All travellers to the Middle East are advised to avoid any unnecessary contact with camels. Travellers should practice good general hygiene measures, such as regular hand washing with soap and water at all times, but especially before and after visiting farms, barns or market areas. Travellers are advised to avoid raw camel milk and/or camel products from the Middle East. More generally, travellers are also advised to avoid consumption of any type of raw milk, raw milk products and any food that may be contaminated with animal secretions unless peeled and cleaned and/or thoroughly cooked.

Whilst the outbreak of MERS-CoV in South Korea is ongoing, travellers should practice good respiratory hygiene, including frequent hand washing, particularly if visiting healthcare premises. Travellers should follow the advice of local health authorities. There are currently no travel restrictions in place.

Travellers returning from the Middle East or South Korea with severe respiratory symptoms should seek medical advice and must mention their travel history so that appropriate measures and testing can be undertaken. People who are acutely ill with an infectious disease should not travel.

## The Hajj

The annual Muslim pilgrimage to Mecca in Saudi Arabia took place in October 2014 with no reported increase in travel-related cases. Intensive surveillance during the 2013 Hajj did not identify any cases of MERS-CoV amongst an estimated 2 million pilgrims. However, several cases of MERS-CoV imported to countries outside of Saudi Arabia in 2014, had returned from Umrah, a minor pilgrimage. Specific advice regarding pilgrimages, including the Hajj and Umrah, is available at [http://www.nathnac.org/pro/factsheets/Hajj\\_Umrah.htm](http://www.nathnac.org/pro/factsheets/Hajj_Umrah.htm). For 2015 the Saudi Ministry of Health recommends that people with underlying medical conditions that put them at greater risk of MERS-CoV, should consider postponing their travel.

PHE remains vigilant and closely monitors developments in the Middle East and in the rest of the world where new cases have emerged, and continues to liaise with international colleagues to assess whether our recommendations need to change

### **PHE Case Definition – Possible case of MERS-CoV**

Any person with severe acute respiratory infection requiring admission to hospital:

With symptoms of fever ( $\geq 38^{\circ}\text{C}$ ) or history of fever, and cough

AND

With evidence of pulmonary parenchymal disease (eg. clinical or radiological evidence of pneumonia or Acute Respiratory Distress Syndrome (ARDS))

AND

Not explained by any other infection or aetiology

AND AT LEAST ONE OF

History of travel to, or residence in an area where infection with MERS-CoV could have been acquired in the 14 days before symptom onset\*

OR

Close contact during the 14 days before onset of illness with a confirmed case of MERS-CoV infection while the case was symptomatic

OR

Healthcare worker based in ICU caring for patients with severe acute respiratory infection, regardless of history of travel or use of PPE

OR

Part of a cluster of two or more epidemiologically linked cases within a two week period requiring ICU admission, regardless of history of travel

\*This definition includes all countries within the geographical Arabian Peninsula, plus countries with cases that cannot be conclusively linked to travel. As of 22/01/2014: Bahrain, Jordan, Iraq, Iran, Kingdom of Saudi Arabia, Kuwait, Oman, Qatar, United Arab Emirates, Yemen and South Korea.