Information for healthcare professionals - Middle East Respiratory Syndrome Coronavirus (MERS-CoV)

Middle East Respiratory Syndrome Coronavirus (MERS-CoV), formerly called novel coronavirus 2012, was discovered by Dutch researchers in September 2012 in lung tissue from a Saudi Arabian national who had died from pneumonia. Since April 2014, there has been a marked increase in reported infections with MERS-CoV. On 2 September 2015, WHO held the tenth meeting of the MERS-CoV emergency committee and determined that a declaration of a Public Health Emergency of International Concern (PHEIC) was still not appropriate. They emphasised, however, that they have a heightened sense of concern due to continued transmission from camels to humans and human-to-human transmission within healthcare settings.

As at 1st December 2016, WHO have reported 1,832 confirmed cases of MERS-CoV infection, primarily from or near the Arabian Peninsula (Kingdom of Saudi Arabia (KSA), United Arab Emirates, Bahrain, Iran, Jordan, Kuwait, Lebanon, Oman, Qatar and Yemen). Cases associated with travel to the Middle East have been identified in several European countries (France, Germany, Italy, UK, Greece, the Netherlands and Austria) and other parts of the world (Republic of Korea, Malaysia, Philippines, Tunisia, Egypt, Algeria, China, Thailand, Turkey and USA). A single case of MERS-CoV in a returning traveller from the Arabian peninsula led to an outbreak involving 186 cases across 16 hospitals in the Republic of Korea. This was the largest outbreak of MERS-CoV outside of the Arabian peninsula.


Two confirmed cases of MERS-CoV infection passed through London Heathrow Airport on flights from the Middle East, with onward travel to the US. In both instances, follow-up of passengers sitting in the immediate vicinity of the case was undertaken, and no onward transmission was identified.

There is a continuing possibility for imported cases of MERS-CoV in people returning from the Middle East, as this event illustrates, however the probability is considered very low. The UK is an important transport hub for travel to the Middle East and HPS has developed a primary care algorithm to assist primary care clinicians in the assessment and management of returning travellers with respiratory symptoms (Primary Care Case Management Algorithm MERS-CoV).

The incubation period is currently considered to be up to 14 days and therefore any respiratory illness occurring in the 14 days following last contact with a confirmed case of MERS-CoV is considered relevant and close contacts should self-isolate and alert their GP as soon as possible. Where the close contacts are healthcare workers this should be their manager/occupational health service. Symptoms include fever, cough, or any other respiratory symptoms. Presentation may be atypical initially, especially in those with immunosuppression or underlying chronic conditions.
Further information on case investigations and management including case definitions, is available on the HPS website for MERS-CoV.

- For the latest case investigation and management algorithms, please see:
  - Primary Care Algorithm MERS-CoV,
  - Secondary Care Algorithm MERS-CoV
  - Close contact Algorithm MERS-CoV.
- For information on infection control, please see Infection control guidance for severe respiratory illness from novel or emerging pathogens: MERS-CoV and Avian influenza (e.g A/H7N9, A/H5N1).
- For information on laboratory testing, please see Information for Microbiologists and Virologists MERS-CoV.
- A clinical management decision support tool (https://www.gov.uk/government/publications/mers-cov-clinical-decision-making-support-for-treatment) has been developed by Public Health England following an international review of the available evidence regarding treatment of Middle East Respiratory Syndrome Coronavirus (MERS-CoV). It is largely based on recent experience in treating SARS and pandemic influenza.
- The “fitfortravel” website provides up-to-date travel information for the public: http://www.fitfortravel.nhs.uk/home.aspx

Travel advice for health professionals is posted on TRAVAX, see: http://www.travax.nhs.uk/. Clinicians who think they may have a patient meeting the definition of a possible case as provided in the secondary care algorithm MERS-CoV or the primary care algorithm MERS-CoV should discuss the case with their local microbiologist or infectious disease physician in the first instance.

Healthcare workers with health concerns or queries should contact their occupational health department.