

Two more cases of novel coronavirus are confirmed in UK

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A further two cases of novel coronavirus infection have been confirmed in the United Kingdom, bringing the global total to 11, with three cases diagnosed in the UK.

The Health Protection Agency said there is now strong evidence of transmission from patient to patient, although the risk of infection is still considered to be very low.

Coronaviruses are causes of the common cold but can also include more severe illness such as severe acute respiratory syndrome. The new strain was first identified in September 2012 in a patient who died from a severe respiratory infection in June 2012. So far the infection has resulted in three deaths in Saudi Arabia and two in Jordan.

In September last year the Health Protection Agency confirmed a case in the UK in a man from Qatar who had recently travelled to Saudi Arabia.¹

The two new cases are in UK residents. One patient had recently travelled to Pakistan and Saudi Arabia and is currently receiving intensive care treatment in a Manchester hospital. The other patient, currently in intensive care at the Queen Elizabeth Hospital in Birmingham, had no recent travel history but is related to the first patient and had been in close personal contact. The second patient is also immunocompromised.

John Watson, head of the respiratory diseases department at the agency, said, "Confirmed novel coronavirus infection in a person without travel history to the Middle East suggests that person to person transmission has occurred and that it occurred in the UK. This case is a family member who was in close personal contact with the earlier case and who may have been at greater risk of acquiring an infection because of their underlying health condition."

He added, "If novel coronavirus were more infectious, we would have expected to have seen a larger number of cases than we have seen, since the first case was reported three months ago. However, this new development does justify the measures that were immediately put into place to prevent any further spread of infection and to identify and follow up contacts of known cases."

These infection control measures include isolation of affected patients, barrier nursing, and ensuring that all staff wear the appropriate protective equipment such as masks, gowns, and

gloves. The patient's room is also cleaned daily with detergent, and hypochlorite is used on the floor. All close contacts of people with the infection, such as family and healthcare workers, are also followed up. The agency has published guidelines on the topic and has also developed a screening test for the virus.²

It said that the risk to travellers to the Arabian peninsula and surrounding countries remained very low but that people who developed severe respiratory symptoms, such as shortness of breath, within 10 days of returning from these countries should seek medical advice and mention which countries they had visited.

So far the virus has been identified in only a small number of people with symptoms of fever, cough, shortness of breath, and breathing difficulties. However, it is not yet clear whether this is a typical presentation or whether the virus could be circulating more widely and causing a milder illness. The virus identified in the UK has now been fully sequenced, and detailed analysis indicates that the nearest relatives are bat coronaviruses.

Maria Zambon, director of reference microbiology services at the Health Protection Agency, said, "In mid-November the HPA published the full genome sequence from the first UK patient, enabling scientists around the world to understand more about the diversity of this virus. This will help with efforts to determine the origin of the virus and develop strategies for treatment and prevention."

The World Health Organization said that all countries should continue their surveillance for severe acute respiratory infections and carefully review any unusual patterns. It said that testing for the new coronavirus should be considered in patients who have unexplained pneumonias and in those with severe, progressive, or complicated illness not responding to treatment. Testing should be considered especially in people living in or returning from the Arabian peninsula and neighbouring countries.

1 Wise J. Patient with new strain of coronavirus is treated in intensive care at London hospital. *BMJ* 2012;345:e6455.

2 Health Protection Agency. Infection control advice: novel coronavirus cases. Oct 2012. www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317136232722.

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