

5 **INTERNATIONAL OUTBREAKS OF IMPORTANCE TO SOUTH AFRICAN TRAVELLERS AND HEALTHCARE WORKERS**

a **Middle East Respiratory Syndrome Coronavirus (MERS-CoV) update**

Background

The Middle East respiratory syndrome (MERS) is an emerging infectious disease caused by a MERS coronavirus (MERS-CoV). It was first reported in Saudi Arabia in 2012. Since September 2012 and as of 12 August 2015, WHO has been notified of a total of 1,401 laboratory-confirmed cases of human infection with MERS-CoV, including 500 related deaths. To date 26 countries have reported cases: ten in the Middle East, eight in Europe, five in Asia, two in Africa and one in the United States of America. So far, all the cases reported from outside the Middle East have either had a recent travel history to the Middle East or could be linked to a chain of transmission originating from a case with a travel history to the Middle East.

MERS-COV outbreak in South Korea

The largest MERS outbreak outside of the Middle East has been reported in South Korea. The outbreak, which began in May 2015 through the importation of a single case in a person who had travelled in the Middle East, remained confined to health-care facilities. This outbreak was propagated mainly through nosocomial transmission and transmission to family caregivers. There has been no evidence of airborne transmission and sustained human-to-human transmission in communities. Since May 2015 and as of 12 August 2015, WHO has been notified of 186 (including one confirmed in China) MERS-CoV cases, including 36 related deaths in South Korea. The last case of MERS-CoV infection in South Korea as reported to WHO was laboratory confirmed on 4 July 2015. For the latest update on cases click on the WHO link below:

http://www.wpro.who.int/outbreaks_emergencies/wpro_coronavirus/en/

Situation in South Africa

In South Africa, 51 samples have been tested for MERS-CoV in 2015, and none of these have tested positive. The majority of specimens 75% (38/51) were received from the viral watch sentinel influenza surveillance site at OR Tambo International Airport, where all suspected influenza patients are also tested for MERS-CoV. Among these individuals, 23 (61%) tested influenza positive.

An additional 13 patients were suspected by the attending clinician to have MERS-CoV. Amongst these 13 individuals, 10 had travelled to the Middle East, two had close contacts who had travelled to

the Middle East and one had no travel history but a screening test positive for coronavirus and was tested to exclude MERS CoV infection. Among these individuals, 4 (31%) tested influenza positive.

Transmission

Camels are likely to be a major reservoir host for MERS-CoV. However, the exact role of camels in transmission of the virus and the exact route(s) of transmission are unknown. The majority of human cases reported to date have resulted from human-to-human transmission in health care settings. However, to date, there is no evidence of sustained human-to-human transmission.

Travel

WHO does not advise screening at points of entry or travel or trade restrictions with regards to MERS.

This year, Hajj will take place from approximately 20–25 September. Because people with pre-existing medical conditions (e.g. chronic diseases such as diabetes, chronic lung disease, renal failure immunodeficiency) and the elderly are more likely to develop severe disease from MERS-CoV infection, the Kingdom of Saudi Arabia and the WHO advises pilgrims to consult a health care provider before travelling, and to consider postponing their pilgrimage: <http://www.gov.sa/en/Hajj/News/Pages/News-2015-07-06-001.aspx>. The NICD has issued a Haj travel advisory, available at <http://www.nicd.ac.za/?page=alerts&id=5&rid=575>

Precautions and infection prevention and control considerations

At present, no vaccine is available. However, individuals are encouraged to be vaccinated against seasonal influenza and to practice good hand hygiene and cough etiquette in order to reduce the risk of infection with respiratory viruses. Nosocomial transmission has been a hallmark of MERS-CoV. Health care providers are advised that appropriate infection control measures should be used while managing all patients with symptoms of acute respiratory infection, and whenever specimens are collected from cases under investigation, the appropriate infection control guidelines should be followed. Droplet precautions should be added to the standard precautions when providing care to patients with symptoms of acute respiratory infection; contact precautions and eye protection should be added when caring for probable or confirmed cases of MERS-CoV infection; airborne

precautions should be applied when performing aerosol generating procedures

Additional resources and updates:

World Health Organization website: http://www.who.int/csr/disease/coronavirus_infections/en/index.html

http://www.who.int/csr/bioriskreduction/infection_control/publication/en/

CDC website: <http://www.cdc.gov/coronavirus/index.html>

NICD website: <http://www.nicd.ac.za>

Source: Centre for Respiratory Diseases and Meningitis, NICD-NHLS