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INTERNATIONAL OUTBREAKS OF IMPORTANCE TO SOUTH AFRICAN TRAVELLERS AND HEALTHCARE WORKERS**a Preparing for Middle East respiratory syndrome coronavirus (MERS-CoV)**

The Middle East respiratory syndrome (MERS) is an emerging infectious disease caused by the MERS coronavirus (MERS-CoV). It was first reported in Saudi Arabia in 2012. Since September 2012 and as of 12 October 2015, WHO has been notified of a total of 1 595 laboratory-confirmed cases of human infection with MERS-CoV, including 571 related deaths. To date 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. Of the 26 countries that have reported cases, Saudi Arabia has reported the highest number of cases to date.

There is currently no vaccine or specific antiviral treatment available, so early identification of cases, prevention of spread and care of potential cases plays a key role in containment. To date, most cases and outbreaks have resulted from human-to-human transmission in health care settings and prompt response by healthcare practitioners has resulted in containment of the spread. Because this is an emerging disease a lot is still not known about the disease regarding transmission.

Although no cases have been identified in South Africa, health systems and clinicians should be prepared for the importation of cases from other countries. In this regard, health care practitioners are encouraged to always be on the alert for possible cases. Guidelines for MERS case finding are available on the NICD website: <http://www.nicd.ac.za>.

The following key points are useful reminders for clinicians:

1. Keep up to date with the latest information about signs and symptoms, diagnostic testing, and case definitions for MERS

2. Be on alert for patients who meet the case definition for patient under investigation (Table 2 below)
3. Collect the relevant history, including travel history or contact with a sick person who had travelled to areas where MERS cases have been reported
4. Be familiar with procedures for your facility on how to triage, isolate, manage and report potential cases.
5. Follow appropriate infection-control measures while managing all patients with symptoms of acute respiratory infection and whenever specimens are collected from patients under investigation.
 - a. Droplet precautions should be added to the standard precautions when providing care to patients with symptoms of acute respiratory infection;
 - b. Airborne disease protection and eye protection should be added when caring for probable or confirmed cases of MERS-CoV infection.
6. Understand the procedures for submission of samples for investigations. Contact NICD hotline at +27 82 883 9920 to discuss suspected cases before collecting samples.

Please see page 6 for Table 2 (case definitions for persons requiring investigation for MERS-CoV)

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

Additional resources and information about MERS-CoV:

http://www.who.int/csr/disease/coronavirus_infections/en/index.html

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

http://apps.who.int/iris/bitstream/10665/174652/1/WHO_MERS_IPC_15.1_eng.pdf?ua=1

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

Table 2. Case definitions for persons requiring investigation for MERS-CoV

Clinical features		Epidemiologic risk
Severe illness Fever ($\geq 38^{\circ}\text{C}$) and cough with pneumonia or acute respiratory distress syndrome (ARDS) (based on clinical or radiologic evidence)	<i>and</i>	History of travel within 14 days before onset of illness to Arabian Peninsula ¹ or in countries where MERS-CoV is known to be circulating or where human infections have recently occurred OR Close contact ² with a symptomatic traveller who developed fever and acute respiratory illness within 14 days after travelling from countries in or near the Arabian peninsula OR A history of being in a healthcare facility, within 14 days before onset of illness, in a country where hospital-associated MERS-CoV infections have been reported OR The disease is in a cluster ³ that occurs within a 14-day period, without regard to place of residence or history of travel, unless another aetiology has been identified.
Illness of any severity A person with acute respiratory illness of any degree of severity	<i>and</i>	within 14 days before onset of illness, had any of the following exposure: Close physical contact ² with a confirmed or probable case of MERS-CoV infection, while that patient was ill OR A healthcare facility in a country where hospital-associated MERS-CoV infections have been reported e.g. Saudi Arabia.

Footnotes:

¹Arabian Peninsula and neighbouring countries include: Iraq, Iran, Bahrain, Israel, the West Bank, and Gaza; Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, The United Arab Emirates (UAE) and Yemen.

²A close contact is defined as

- * being within 2 meters/within the room or care area for a prolonged period of time (e.g. health personnel, household members) while not wearing recommended personal protective equipment (gloves, gowns, N95 mask, eye protection); or
- * Having direct contact with infectious secretions (e.g. being coughed on) while not wearing recommended personal protective equipment (gown, gloves, eye protection, N95 mask). Data on close contact is limited, currently brief interactions (e.g. walking by a person, are considered low risk and do not constitute close contact)

³A 'cluster' is defined as two or more persons with onset of symptoms within the same 14-day period, and who are associated with a specific setting, such as a classroom, workplace, household, extended family, hospital, other residential institution, military barracks or recreational camp.