

Chief Health Officer Advisory

31 October 2016

Status: Active

Update: Middle East Respiratory Syndrome Coronavirus (MERS-CoV)

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Date issued:	31 October 2016 (Update to Alert issued 21 September 2015)
Issued by:	Professor Charles Guest, Chief Health Officer
Issued to:	Health practitioners including General Practitioners and emergency departments

Key messages

- Healthcare professionals should be aware of **the case definition for MERS-CoV** and the Triage Alert issued for health services.
- **Take a travel history** from all patients presenting with a fever and respiratory symptoms.
- **Provide travel health advice** for people travelling to the Middle East, including those undertaking the annual Hajj Pilgrimage, and consider MERS-CoV in travellers who are unwell on return.
- **Notify the Department of Health & Human Services immediately** of all suspected cases of MERS-CoV infection on 1300 651 160.
- **Ensure appropriate infection control procedures** are used when managing suspected cases, including isolating suspected cases in a single room with transmission-based contact and airborne precautions until MERS-CoV is excluded.

What is the issue?

Cases of MERS-CoV continue to be diagnosed in the Middle East. The Communicable Disease Network Australia (CDNA) has developed a national case definition for suspected cases that may present in Australia. This Advisory reflects this information.

What is the current situation?

As of 24 October 2016, the [World Health Organization](#) (WHO) global case count was 1,806 laboratory-confirmed cases of MERS-CoV, including at least 643 known deaths (case fatality rate 35%) since the first case was reported in September 2012. Most cases have been in Saudi Arabia.

In response to the 2015 outbreak in the Republic of Korea, the CDNA updated its Series of National Guidelines (SoNG) for MERS-CoV, and developed a new case definition for a suspected case of MERS-CoV. The revised SoNG can be found at: <http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-mers-cov.htm>



Who is at risk?

Many travellers develop illness and it is not appropriate to test for MERS-CoV in every instance of symptoms in a returned traveller from countries affected by MERS-CoV. If you suspect MERS-CoV call the **Department of Health & Human Services' Communicable Disease Prevention and Control (CDPC) section on 1300 651 160**. In consultation with the Department's CDPC section, consider limiting testing to those who meet the following case definition for a suspected MERS-CoV case:

Suspected case of MERS-CoV

A suspected case of MERS-CoV is an individual where there is an appropriate combination of clinical evidence and epidemiological evidence as described in three possible combinations below:

- A. Fever AND any of pneumonia / pneumonitis / acute respiratory distress syndrome (ARDS) AND
 - has a history of travel / residence in affected countries in the Middle East¹ within 14 days before symptom onset, OR
 - had contact² (within the incubation period of 14 days) with a symptomatic traveller who developed fever and acute respiratory illness of unknown aetiology within 14 days after travelling from affected countries in the Middle East¹ or from a region with a known MERS-CoV outbreak at that time.³
- B. Fever AND symptoms of respiratory illness (e.g., cough, shortness of breath) AND
 - was in a healthcare facility (as a patient, worker or visitor) in a country in which recent healthcare-associated cases of MERS have been identified³ within 14 days before symptom onset, OR
 - had contact with camels or raw camel products within affected countries in the Middle East¹ within 14 days before symptom onset.
- C. Fever OR acute symptoms compatible with MERS-CoV AND onset within 14 days after contact² with a probable or confirmed MERS-CoV case while the case was ill.

Testing and infection control and public health actions for MERS-CoV should also be considered, in consultation with the Department, for members of a cluster of patients with severe acute respiratory illness of unknown aetiology following routine microbiological investigation, particularly where the cluster includes health care workers.

Notes:

¹ Affected countries in the Middle East include Iran, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, the United Arab Emirates (UAE) and Yemen. Transiting through an international airport (<24 hours stay, remaining within the airport) in the Middle East is not considered to be risk factor for infection.

² A close contact is defined as requiring greater than 15 minutes face-to-face contact with a symptomatic probable or confirmed case in any closed setting, or the sharing of a closed space with a symptomatic probable or confirmed case for a prolonged period (e.g. more than 2 hours).

³ See the World Health Organization (WHO) coronavirus infection website for list of countries currently experiencing a MERS outbreak: <http://www.who.int/emergencies/mers-cov/en/>

The [Triage Alert](#) helps to guide identification of individuals at risk for MERS-CoV.

More information on the current situation is available at the Commonwealth Department of Health Website: <http://www.health.gov.au/mers-coronavirus>

Transmission and prevention

The exact source of the virus and the mechanism of transmission is unknown. The following **travel health advice** is recommended for travellers to the Middle East or countries where an outbreak is occurring:

- Avoid close contact with people suffering from acute respiratory infections.
- Wash hands frequently, particularly around animals, and practice good respiratory hygiene, especially cough etiquette.
- Adhere to food safety and hygiene rules, including avoiding undercooked meats, raw fruits and vegetables (unless peeled), and ensuring safe drinking water is consumed.
- Avoid close contact with live farm or wild animals including camels, avoid drinking raw camel milk or eating meat that has not been properly cooked.

The particular conditions or procedures that lead to transmission in hospital settings have not yet been determined. Infection control recommendations for suspected cases aim to provide the highest level of protection for health care workers, given the current state of knowledge. Health care workers should follow the NHMRC's [Australian Guidelines for the Prevention and Control of Infection in Healthcare \(2010\)](#), particularly section B2.4.

Symptoms and management

MERS-CoV infection can cause mild respiratory symptoms through to severe acute respiratory disease and death. Typical symptoms have included fever, cough, shortness of breath, and breathing difficulties. Pneumonia has been reported commonly, and gastrointestinal symptoms including diarrhoea have been reported. Respiratory failure can occur with severe illness, requiring ventilatory support. Older patients and those who are immunocompromised or have chronic diseases (such as diabetes, chronic lung disease or cancer) appear to be at greater risk of severe disease.

The following actions are recommended for all suspected cases:

1. Place the patient in a single room with negative pressure, and implement contact and airborne transmission-based precautions as per [NHMRC recommendations](#), including the use of personal protective equipment (PPE).
2. Notify the Department of Health and Human Services' CDPC section 24 hours on **1300 651 160**.
3. Actively investigate for other causes of community acquired pneumonia, including undertaking bacterial culture, serology, urinary antigen testing and tests for respiratory viruses as indicated.
4. If transfer of a suspected, probable or confirmed case outside the negative pressure room is necessary, ask the patient to wear a single use face mask (i.e. a 'surgical' face mask) during transfer and educate the patient on following respiratory hygiene and cough etiquette.

Testing **should only be carried out after discussion with the Department's Communicable Disease Prevention and Control section** and only where MERS-CoV is suspected on clinical and epidemiological grounds according to the case definition above. All testing for MERS-CoV in Victoria will be carried out at the Victorian Infectious Diseases Laboratory (VIDRL).

More information

Information for General Practitioners and other clinical, laboratory and public health personnel, as well as infection prevention and control advice is available on the Australian Government's Health website for MERS-CoV:

<http://www.health.gov.au/mers-coronavirus>

Updates on the current situation: http://www.who.int/csr/disease/coronavirus_infections/en/

Infection Control Guidelines: NHMRC's [Australian Guidelines for the Prevention and Control of Infection in Healthcare 2010](#)

Contacts

Advice and disease notifications – Phone the Department's Communicable Disease Prevention and Control section on **1300 651 160**.



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