Middle East Respiratory Syndrome Coronavirus (MERS-CoV)
Important update for General Practitioners
27 May 2014

What’s new in this advice?
- Updated case numbers.
- More information about the source of infection.
- New advice for travellers.

Summary
- The number of reported cases of Middle East Respiratory Syndrome coronavirus (MERS-CoV) increased sharply in April and May 2014. As of 23 May 2014, MERS-CoV was identified in 635 patients with 193 deaths.
- All cases have been linked with travel to or residence in the Middle Eastern countries of Saudi Arabia, the United Arab Emirates, Qatar, Oman, Jordan, Kuwait, Lebanon and Yemen, or with contact with travellers returning from these areas.
- Dromedary camels are the suspected source of sporadic human infections, though the exact routes of direct or indirect exposure remain unknown. Person-to-person transmission is known to occur, particularly in healthcare settings, and particular attention to infection control is required.
- Sporadic infections have typically presented with, or later developed severe acute lower respiratory disease and this has predominantly occurred in adult males with certain underlying medical conditions.
- Mild or asymptomatic secondary infections have occurred in people of all ages, and have most often been associated with healthcare settings.
- People with underlying medical conditions are advised to take appropriate precautions when visiting farms or barns or market environments where camels may be present in affected countries, including avoiding contact with camels.
In patients with suspected pneumonia or pneumonitis with a history of recent residence or travel (in the 14 days before symptom onset) in the Middle East*, or close contact with confirmed or probable cases, the following is recommended:

1. The patient should be placed in a single room if available and standard and transmission-based precautions implemented (contact, droplet and airborne), including the use of personal protective equipment.

2. The relevant state/territory public health unit/communicable diseases branch must be notified urgently of any suspected (and probable or confirmed) cases in order to discuss patient referral and coordinate management of contacts.

**Note:** Transiting through an international airport (<24 hours duration, remaining within the airport) in the Middle East is not considered to be risk factor for infection.

*Countries in the Middle East and immediate surrounding areas may be defined as Bahrain, Iraq, Iran, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian territories, Qatar, Saudi Arabia, Syria, the United Arab Emirates and Yemen.*

**What are the symptoms and how do I manage a suspected case?**

The likelihood of a case of pneumonia or pneumonitis in Australia due to MERS-CoV is very low, and GPs should investigate as usual, but be aware of the possibility of MERS-CoV in patients with a compatible exposure history (travel or residence in the Middle East in the 14 days before illness, or exposure to confirmed/probable cases in the 14 days before illness onset).

Sporadic infections have typically presented with, or later developed severe acute lower respiratory disease, with pneumonia and pneumonitis. Typical symptoms have included fever, cough, shortness of breath, and breathing difficulties.

Sporadic cases have predominantly been adult males with underlying medical conditions that may have predisposed them to infection, or may have increased the severity of the disease, including diabetes, kidney disease, hypertension, asthma and lung diseases, cancer and cardiovascular disease.

GPs should be aware of the possibility of atypical presentations including fever and diarrhoea.

Secondary infections acquired through person-to-person spread have occurred in people of all ages, may frequently have mild influenza-like symptoms or be asymptomatic. Secondary infections have most frequently been associated with healthcare settings, but have also occurred amongst family and workplace contacts.

If transferring a patient to an emergency department, please ensure your phone call and letter of referral includes details of relevant travel history, or known exposure to confirmed or probable cases and include details of any relevant treatments or investigations undertaken for the patient.

Please also remember to inform the Communicable Diseases Prevention Unit (CDPU) about the case urgently (contact details below).

**Notes:** 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. Countries in the Middle East and immediate surrounding areas may be defined as Bahrain, Iraq, Iran, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian territories, Qatar, Saudi Arabia, Syria, the United Arab Emirates and Yemen.
Who do I consider MERS-CoV infection in?
The possibility of MERS-CoV infection should be considered for:

1. Individuals with pneumonia or pneumonitis and history of travel ‘to, or residence in, the Middle East*, in the 14 days before illness onset.
2. Individuals with pneumonia or pneumonitis and history of contact with those in point 1 above in the 14 days before illness onset.

Notes:

*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.

* Countries in the Middle East and immediate surrounding areas may be defined as Bahrain, Iraq, Iran, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian territories, Qatar, Saudi Arabia, Syria, the United Arab Emirates and Yemen.

GPs should be aware of the possibility of atypical non-respiratory presentations, but referral and testing for MERS-CoV should be performed in patients with radiological evidence of pneumonitis with the appropriate travel/contact history.

Testing for MERS-CoV

It should not be necessary to collect diagnostic specimens in a general practice setting as suspected cases will by definition be quite unwell and should be referred to a hospital for investigation and management. GPs should note that there is currently no serological testing for MERS-CoV in Australia.


Are GPs at risk from MERS-CoV?

Many confirmed cases have occurred in healthcare-associated clusters, and there have been a large number of cases in healthcare workers, but mainly in hospital settings.

The particular conditions or procedures that lead to transmission in hospital are not well known. However, lapses in infection control were known to have occurred for seven healthcare workers who acquired the infection from cases in Saudi Arabia.

What are the recommended isolation and personal protective equipment recommendations for patients in general practice?

Infection control recommendations in this document for suspected cases aim to provide the highest level of protection for health care workers, given the current state of knowledge. In patients with compatible symptoms and exposure history, GPs should follow standard precautions for infection control, and to minimise the risk of spread of MERS-CoV, contact, droplet and airborne precautions (transmission based precautions) are used in addition to standard precautions.
The recommendations include:

- contact precautions, including careful attention to hand hygiene
- encourage patient to use respiratory etiquette
- ask patient to wear a mask
- use personal protective equipment, including a mask, and possibly eye protection
- single use equipment wherever possible
- clean areas where the patient has been after they have left.


**Pre-travel advice, travel restrictions, periods of peak travel**

The World Health Organization (WHO) does not currently recommend any restrictions to travel due to the MERS-CoV outbreak.

**Umrah and Hajj**

GPs should be aware that many Muslims from Australia will travelled to Saudi Arabia to undertake the Umrah, particularly during the period at the end of Ramadan in late June/July and for the Hajj in October.

**Pre-travel advice**

Travellers should be aware of relevant immunisation requirements and the importance of personal hygiene including frequent hand washing, avoiding close contact with animals and with people who are suffering from acute respiratory infection, and should be advised to seek medical attention as soon as possible if they feel unwell.

They should also follow usual food hygiene practices for travellers, including avoiding drinking raw milk or eating food that may be contaminated with animal secretions or products unless they are properly washed, peeled or cooked.

The WHO advises people at potentially higher risk of severe disease due to MERS-CoV should in addition avoid contact with camels.

For further information, refer to:

DFAT’s Smartraveller website information for travellers www.smartraveller.gov.au/

The latest WHO updates available from the WHO website:

www.who.int/csr/disease/coronavirus_infections/en/
What is the MERS-CoV?

Coronaviruses are a large and diverse family of viruses that include viruses that are known to cause illness in humans, including the common cold, and in animals. MERS-CoV has never previously been detected in humans or animals but appears most closely related to coronaviruses previously found in bats. It is genetically distinct from the SARS coronavirus, and appears to behave differently.

What is the current situation?

The first known cases of MERS-CoV occurred in March 2012, and were identified retrospectively. As of 23 May 2014, MERS-CoV has been identified in 635 patients with 193 deaths.

The number of cases has increased sharply in April and May 2014, and the rapid increase in case numbers has been linked to spread in healthcare settings in the United Arab Emirates and Saudi Arabia, with approximately 75 per cent of recent cases being reported from these settings.

All cases have been linked with travel to or residence in the Middle Eastern countries of Saudi Arabia, the United Arab Emirates, Qatar, Oman, Jordan, Kuwait, Lebanon and Yemen, or with contact with travellers retuning from these areas.

Imported and import-related cases have been reported in an increasing number of countries in Europe and Southeast Asia and in the United States.

Dromedary camels are the suspected source of sporadic human infections, though the exact routes of direct or indirect exposure remain unknown. Person-to-person transmission is known to have occurred, particularly in large clusters occurring in healthcare settings.

Further information

Refer to separate information for clinicians, laboratories and public health personnel available from the Department of Health website http://health.gov.au/MERS-coronavirus

Refer to the WHO website for the latest information www.who.int/csr/disease/coronavirus_infections/en/

Who do I contact if I have a suspected case?

1. Notify the CDPU promptly of any suspected, probable or confirmed cases in order to discuss and facilitate testing as well as management of contacts, on 1800 671 738. If the CDPU on-call staff member doesn’t answer your call immediately email cdpuoncall@dhhs.tas.gov.au.

2. Discuss any suspected case with the on-call Infectious Diseases Physician in your hospital.

3. If transferring a patient to an emergency department, please ensure your phone call and letter of referral includes details of relevant travel history, or known exposure to confirmed or probable cases and include details of any relevant treatments or investigations undertaken for the patient.