

Given ever increasing levels of international travel, patients are likely to present in the surgery who have recently travelled from areas of the world where emerging viral diseases are occurring.

- Worldwide, over one billion people travel by commercial aircraft every year, and this number is expected to double in the next 20 years.(1)
- Almost 9,000 seats are provided by Etihad airlines each week between the capital cities of Ireland and the UAE.
- Emirates airlines currently have two flights daily from Dublin to Dubai.

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## Middle Eastern Respiratory Syndrome Coronavirus (MERS-CoV)

This new strain of coronavirus was identified in the Middle East in September 2012 in individuals with severe acute respiratory illness. MERS-CoV differs from the previously identified coronaviruses such as SARS coronavirus (SARS-CoV), which caused a global outbreak in 2003. Common symptoms of MERS-CoV are acute, serious respiratory illness with fever, cough, shortness of breath and breathing difficulties. Most patients have had pneumonia. Many have also had gastrointestinal symptoms, including diarrhoea. Some patients have had kidney failure. Approximately one-third of people infected with MERS-CoV have died. In people with immune deficiencies, the disease may have an atypical presentation. More recently, secondary cases, occurring in healthcare workers who have been caring for sick patients, have presented with milder symptoms. It is important to note that the current understanding of illness caused by this infection is based on a limited number of cases and may change as we learn more about the virus.

The number of reported MERS-CoV cases increased markedly in April 2014. Up-to-date news and details on MERS-CoV cases are available on the [WHO](#) website. Approximately 20% of cases occurred in healthcare workers. The majority of cases occurred in the Middle East, with cases reported from outside of this region (Algeria, Austria, China, France, Germany, Greece, Italy, Malaysia, Philippines, Republic of Korea, Thailand, The Netherlands, Tunisia, Turkey, the UK and the USA). The source of MERS-CoV infection and the mode of transmission have not been identified, but the continued detection of cases in the Middle East indicates that there is an on-going source of infection in the region. Dromedary camels are likely an important host species for the virus, and many of the primary cases in clusters have reported direct or indirect camel exposures. Almost all of the recently reported secondary cases, many of whom are asymptomatic or have only mild symptoms, have been acquired in healthcare settings. There is therefore a continued risk of cases presenting in Europe following exposure in the Middle East, and so international surveillance and awareness of the possibility of imported cases of MERS-CoV presenting in primary care are essential. Information on MERS-CoV, including the latest ECDC rapid risk assessment is available on the [ECDC website](#). Further information and guidance documents are also available on the [HPSC](#) and [WHO](#) websites.

<http://www.hpsc.ie/A-Z/Respiratory/CoronavirusInfections/>

[http://www.who.int/csr/disease/coronavirus\\_infections/en/](http://www.who.int/csr/disease/coronavirus_infections/en/)

## Travel advice

Those travelling to the Middle East should:

- Avoid close contact with people suffering from acute respiratory infections and wash hands after contact with ill people and their environment.
- Practice good hygiene, i.e. wash hands with soap and water after contact with the environment, or animals. Regular [hand washing](#) is one of the most important ways to prevent spread of infection.
- Avoid touching eyes, nose or mouth with your hands.
- Adhere to food safety and hygiene rules, such as avoiding undercooked meats, unpasteurised milk (particularly from camels), raw fruits and vegetables unless they have been peeled, or drinking unsafe water.
- All visitors should avoid unnecessary contact with farm, domestic, and wild animals, especially camels or their waste products.
- The general traveller should avoid farms or barn areas where the virus is known to be potentially circulating. When visiting a farm or a barn, general hygiene measures, such as regular hand washing before and after touching animals, avoiding contact with sick animals, and following food hygiene practices should be adhered to
- Those at high risk of severe disease due to MERS-CoV, including those with diabetes, chronic lung disease, pre-existing renal failure or those who are immuno-compromised, should consult their physician prior to travelling

WHO has issued [new interim recommendations for persons in risk groups](#) (13/6/14). Until more is understood about MERS, people with diabetes, renal failure, chronic lung disease, and immunocompromised persons are considered at high risk of severe disease from MERS-CoV infection. Therefore these people should avoid contact with camels, should not drink raw camel milk or camel urine, and should not eat meat that has not been properly cooked. The Kingdom of Saudi Arabia (KSA) recommends that elderly people, pregnant women, children and those with chronic diseases (e.g. heart diseases, kidney diseases, respiratory diseases, nervous system disorders, diabetes and immune deficiency) postpone the performance of the Hajj and Umrah rituals for this year for their own safety. See advice at <http://www.moh.gov.sa/en/Hajj/HealthGuidelines/HealthGuidelinesDuringHajj/Pages/HealthRegulations1435.aspx>

WHO has issued specific travel advice on MERS-CoV for pilgrimages, available at <http://www.who.int/ith/updates/20140603/en/>

On returning from the Middle East:

- If you develop respiratory symptoms such as cough, fever, shortness of breath, or diarrhoea within 14 days of returning from the Middle East seek urgent medical attention, and tell the doctor that you have recently returned from the Middle East.

## Definition of a close contact of a MERS-CoV case

- Prolonged face-to-face contact (>15 minutes) with a symptomatic confirmed case in a household or other closed setting

OR

- Healthcare worker who provided direct clinical or personal care or examination of a symptomatic confirmed case

OR

- Hospital visitor to a possible/confirmed case. Contacts will be identified following a risk assessment.

## Avian Influenza A(H7N9)

On 1<sup>st</sup> April 2013, the World Health Organization (WHO) notified countries of a novel influenza A(H7N9) virus in three seriously ill patients in China. This was the first time that human infection with influenza A(H7N9) virus had been identified. Since that time more cases have been identified over time and further cases may occur. The most current information on cases can be found in [Disease Outbreak News \(DONs\)](#).

Most of these infections are believed to result from exposure to infected poultry or contaminated environments, as H7N9 viruses have also been found in poultry in China. While some mild illnesses in human H7N9 cases have been seen, most patients have had severe respiratory illness, with about one-third resulting in death. Common symptoms include fever, cough and shortness of breath. No evidence of sustained person-to-person spread of H7N9 has been found, though some evidence points to limited person-to-person spread in rare circumstances. The first case outside of China was in Malaysia in a traveller from an H7N9-affected area of China and was reported on February 12, 2014. The new H7N9 virus has not been detected in people or birds in Europe.

It is likely that sporadic cases of influenza A(H7N9) associated with poultry exposure will continue to occur in China and may spread to poultry in neighbouring countries. It is also possible that H7N9 cases may continue to be detected among travellers returning from affected countries, even possibly in Europe at some point. However, as long as there is no evidence of on-going, sustained person-to-person spread of H7N9, the public health risk is low. Most concerning about this situation is the pandemic potential of this virus. For up to date information on human infection with avian influenza A(H7N9) virus in China including the current case numbers and WHO risk assessment of the situation please see [here](#).

## Definition of a close contact of influenza A(H7N9) case

Close contacts are defined as persons within approximately 6 feet (2 metres) or within the room or care area of a confirmed or probable H7N9 case patient for a prolonged period of time, or with

direct contact with infectious secretions (such as being directly in the path of a sneeze) while the patient was likely to be infectious (beginning 1 day prior to onset of signs and/or symptoms and continuing until resolution of illness).

1. **Highest-risk exposure groups** (greatest possible risk of transmission): Household or close family member contacts of a confirmed or probable case.
2. **Moderate-risk exposure groups** (unknown risk of transmission): Health care personnel with higher-risk contact with a confirmed or probable case (e.g., during bronchoscopy or intubation; or while performing tracheal suctioning, delivering nebulised drugs, or handling inadequately screened/sealed body fluids without use of recommended personal protective equipment (PPE); or with a recognised breach in PPE procedures).
3. **Low-risk exposure groups** (transmission unlikely): Others who have had social contact of a short duration with a confirmed or probable case in a non-hospital setting (e.g. in a community or workplace environment).

## Travel advice

There is no need to change travel plans for persons going to or coming from China because of the recent appearance of the [novel avian influenza virus A\(H7N9\)](#) in humans.

Because of the presence of the novel influenza viruses, other avian influenza and zoonotic infections in live bird and animal markets (so called "wet markets") in China, visitors to China and other countries in Asia are advised to avoid visiting these markets. Visitors are advised to avoid direct contact with bird and animal droppings, untreated bird feathers and other animal and bird waste and follow the basic rules of hand hygiene which includes hand washing and the use of alcohol-based hand rubs. See the [HPSC Bird Flu information leaflet](#) for further advice.

## Useful links

<http://www.hpsc.ie/A-Z/Respiratory/Influenza/AvianInfluenza/InfluenzaAH7N9virus/>

## Management of patients and healthcare staff with potential exposure to a suspected case of MERS CoV or Avian Influenza A (H7N9) in the primary/community healthcare setting

1. The risk of contracting MERS-CoV or Avian Influenza A(H7N9) in this setting/context remains very low
2. Make a list of all patients in the waiting room who may have had potential exposure - see definitions of close contacts above.
3. Make a list of all healthcare/practice staff who may have had potential exposure - See definitions of close contacts above.
4. If the suspected case of MERS-CoV or Avian Influenza A(H7N9) is confirmed, the local Department of Public Health will contact the GP/Practice regarding follow-up of contacts and subsequent actions.
5. **No action is required until the suspect case is confirmed**
6. The increase in MERS-CoV amongst healthcare workers in the Middle East, reinforces the importance of strict adherence to recommended infection control measures in healthcare facilities
7. Also clean and disinfect the surgery and waiting area as per [algorithm](#).

### References

1. Centers for Disease Control and Prevention. The Yellow Book: Travellers' Health. Travel safe, Travel fast. Chapter 6. Conveyance and Transportation Issues: Air Travel.  
<http://wwwnc.cdc.gov/travel/yellowbook/2014/chapter-6-conveyance-and-transportation-issues/air-travel>