

Severe respiratory disease associated with Middle East respiratory syndrome coronavirus (MERS-CoV)

Twelfth update, 16 October 2014

Main conclusions

- Taking into account the latest developments reflected in the most recent [ECDC epidemiological update](#) dated 1 October 2014 [9] and [WHO outbreak news](#) on the Middle East respiratory syndrome coronavirus (MERS-CoV) dated 2 October 2014 [2], ECDC concludes that the assessed risk to the EU posed by the outbreak of MERS-CoV remains low, as stated in the most recent update of ECDC's [Rapid Risk Assessment](#), dated 21 August 2014 [10].
- The incidence of cases in September and October 2014 is slightly higher than in July and August 2014. This pattern was also observed in 2012 and 2013. The majority of MERS-CoV cases are still being reported from the Arabian Peninsula, specifically from Saudi Arabia, and all cases have epidemiological links to the outbreak epicentre.
- The latest importation to the EU is not unexpected and does not indicate a significant change in the epidemiology of the disease. Importation of MERS-CoV cases to the EU remains possible. However, the risk of sustained human-to-human transmission in Europe remains very low.

Source and date of request

European Commission, 2 October 2014.

Public health issue

Risk associated with the confirmation of an imported case of MERS-CoV in Austria.

Consulted experts

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Event background information

Current epidemiological situation

MERS-CoV case imported to Austria, reported by the Austrian Department of Health

On 30 September 2014, the Austrian Department of Health reported a laboratory confirmed MERS-CoV case with a recent travel history to Saudi Arabia [1]. According to Austrian authorities, the 29-year-old female citizen of Saudi Arabia travelled by car from Riyadh to Affif in Saudi Arabia on 22 September from where she flew to Vienna, Austria via Doha in Qatar. She was symptomatic with an upper respiratory infection and fever prior to arrival in Austria. The patient sought medical care in Austria on 24 September and was admitted to a private hospital on 26 September from where she was transferred to the isolation ward of the reference hospital for highly infectious diseases in Vienna on 28 September 2014 [2]. The patient is currently in a stable condition.

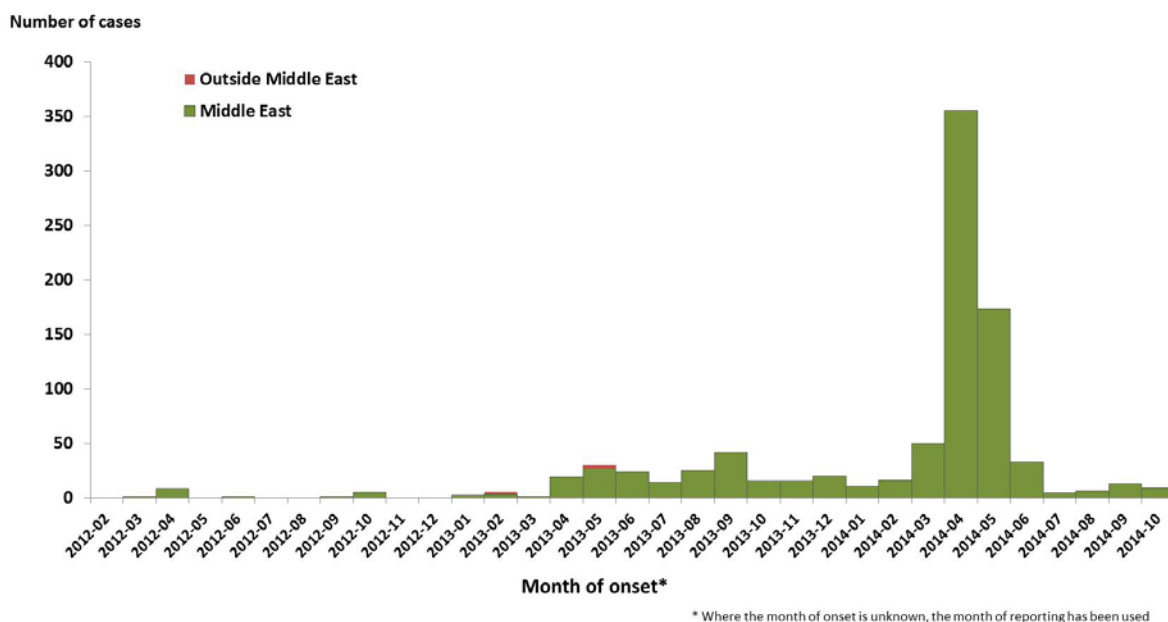
The MERS-CoV infection was laboratory confirmed on 29 September 2014. The patient has no history of exposure to camels or their products; no prior hospitalisation and no contact to a known MERS-CoV case or any sick person.

The case was symptomatic and assumed infectious prior to and during the flight to Austria. Therefore passengers and crew on the same flight with the MERS-CoV patient are being followed-up and personal data on the passengers and crew have been communicated to Qatar and Saudi Arabia [1]. Contacts of the patient have been identified and informed about the disease and are being followed-up by the Austrian health authorities. According to the Ministry of Health of Austria, close contacts showing upper respiratory symptoms have been tested for MERS-CoV. The laboratory analyses were negative for all the contact persons tested [2].

Worldwide situation

Overall, 896 laboratory-confirmed cases of MERS-CoV have been reported to the public health authorities worldwide, including 357 deaths as of 14 October 2014 (Figure 1).

Figure 1. Distribution of confirmed cases of MERS-CoV reported September 2012–14 October 2014, by date and reporting country (n=896)



Most of the cases have occurred in the Middle East (Saudi Arabia, United Arab Emirates, Qatar, Jordan, Oman, Kuwait, Egypt, Yemen, Lebanon and Iran) (Table 1).

Since the beginning of September 2014, the Ministry of Health of Saudi Arabia has reported 29 cases, including 19 retrospective cases with date of onset prior to June 2014. As of 14 October 2014, eight cases had been reported in October [3].

The probable place of infection is known for 20 recently reported cases in Saudi Arabia: Eastern Province (4 cases), Madinah (1), Makkah, Taif (9), Najran (2) and Riyadh (4). Three of the cases reported in September and October were classified as expatriate healthcare workers.

On 12 October, the health authorities in Qatar reported a case of MERS-CoV in a 71-year-old man with a recent travel history to Al-Ahsa in Saudi Arabia. The case was transported in an ambulance from Saudi Arabia to Qatar. Contact tracing is being conducted by local health authorities. This is the first case since November 2013 in Qatar [4].

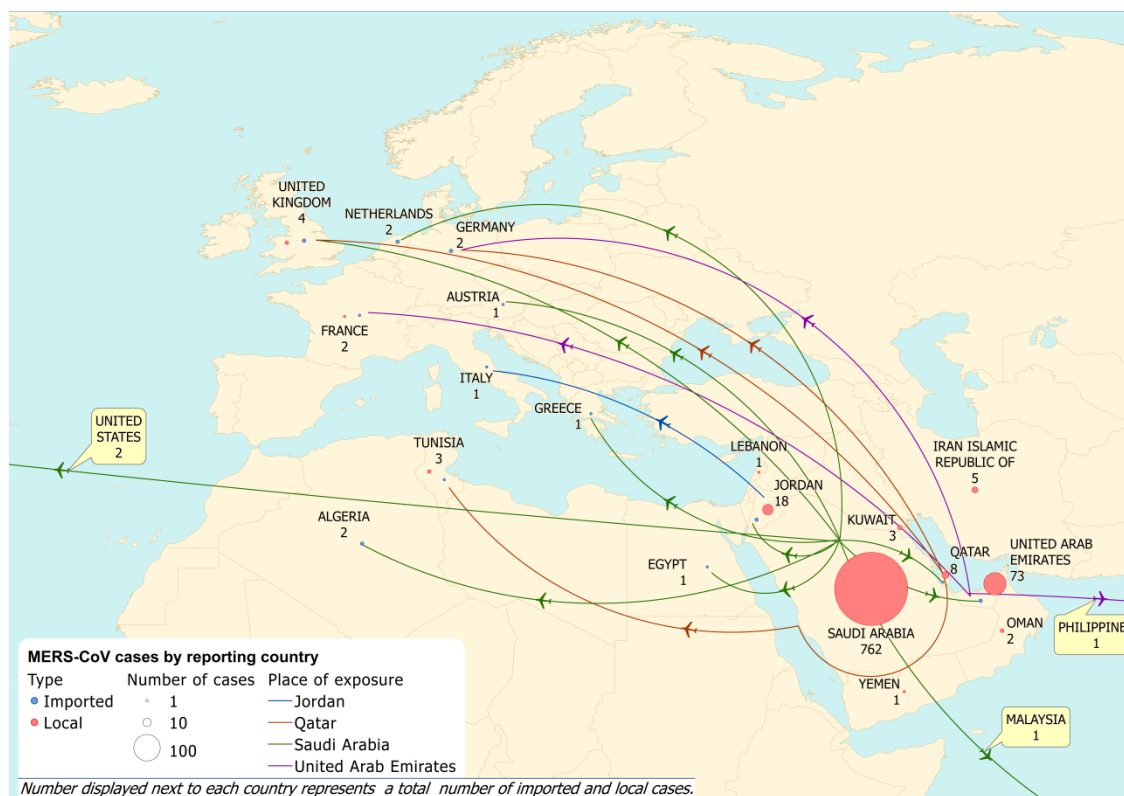
Table 1. Number of confirmed cases and deaths, by country of reporting, March 2012–13 October 2014

Reporting country	Cases	Deaths	Date of onset/reporting for most recent cases
Saudi Arabia	762	324	13/10/2014
United Arab Emirates	73	9	11/06/2014
Qatar	8	4	12/10/2014
Jordan	18	5	23/05/2014
Oman	2	2	20/12/2013
Kuwait	3	1	07/11/2013
Egypt	1	0	22/04/2014
Yemen	1	1	17/03/2014
Lebanon	1	0	22/04/2012
Iran	5	2	25/06/2014
Austria	1	0	29/09/2014
United Kingdom	4	3	06/02/2013
Germany	2	1	08/03/2013
France	2	1	08/05/2013
Italy	1	0	31/05/2013
Greece	1	1	08/04/2014
Netherlands	2	0	05/05/2014
Tunisia	3	1	01/05/2013
Algeria	2	1	24/05/2014
Malaysia	1	1	08/04/2014
Philippines	1	0	11/04/2014
United States of America	2	0	01/05/2014
Total	896	357	

Geographical distribution

All cases reported outside of the Middle East have had a recent travel history to the Middle East or contact with a case who had travelled from the Middle East (Figure 2).

Figure 2. Geographical distribution of confirmed MERS-CoV cases and place of probable infection, worldwide, as of 14 October 2014 (n=896)



The Hajj pilgrimage

The annual Muslim Hajj pilgrimage to Mecca in Saudi Arabia took place at the beginning of October 2014.

In 2013, intensive surveillance during the Hajj did not detect any cases of MERS-CoV among pilgrims. However, during 2014 several MERS-CoV cases among returning pilgrims have been identified in countries outside of Saudi Arabia in relation to Umra, a smaller pilgrimage. Therefore, the UK published an [updated risk assessment](#) of Middle East Respiratory Syndrome Coronavirus (MERS CoV) on 9 October 2014 [11] and indicated the need to remain vigilant and to closely monitor developments related to MERS-CoV infections. Specific advice regarding pilgrimages, including the Hajj and Umra, is available on the National Travel Health Network and Centre (NaTHNaC) website [5] and in [WHO's travel advice](#) on MERS-CoV for pilgrims departing for Umra [6].

The Ministry of Health of Saudi Arabia issued advice after the Hajj encouraging pilgrims to seek medical care if they are experiencing any symptoms [7]. So far in the context of the 2014 Hajj, 134 respiratory samples have been collected by health authorities in Saudi Arabia and tested negative for MERS-CoV [8].

Conclusions

- Taking into account the latest developments reflected in the most recent ECDC epidemiological update dated 1 October 2014) [9] and WHO outbreak news on the Middle East respiratory syndrome coronavirus (MERS-CoV) dated 2 October 2014) [2], ECDC concludes that the assessed risk to the EU posed by the outbreak of MERS-CoV remains low, as stated in the most recent update of ECDC's Rapid Risk Assessment dated 21 August 2014 [10].
- The incidence of cases in September and October 2014 is slightly higher than in July and August 2014. This pattern was also observed in 2012 and 2013. The majority of MERS-CoV cases are still being reported from the Arabian Peninsula, specifically from Saudi Arabia, and all cases have epidemiological links to the outbreak epicentre.
- The latest importation to the EU is not unexpected and does not indicate a significant change in the epidemiology of the disease. Importation of MERS-CoV cases to the EU remains possible. However, the risk of sustained human-to-human transmission remains very low in Europe.

Related links

ECDC factsheet for health professionals: <http://www.ecdc.europa.eu/en/healthtopics/coronavirus-infections/mers-factsheet/Pages/default.aspx>

WHO Emergency Committee issued a [Statement on the Seventh Meeting of the IHR Emergency Committee regarding MERS-CoV](#) (1 October 2014). The emergency committee concluded that the conditions for a Public Health Emergency of International Concern have not been met and recommended a number of public health measures concerning mainly the affected countries and countries in Africa.

Global Alert and Response (GAR) [Corona virus infections](#). WHO has issued new surveillance guidance, case definitions and laboratory guidance, which were referred to in the ECDC Rapid Risk Assessment published on 21 August 2014.

Public Health England published a [Risk Assessment of Middle East Respiratory Syndrome Coronavirus \(MERS CoV\)](#) 9 October 2014.

Ministry of Health of Austria reported of a [MERS-CoV case](#) with recent travel history to Saudi Arabia.

ECDC rapid risk assessment: Severe respiratory disease associated with Middle East respiratory syndrome coronavirus (MERS-CoV) – Update, 21 August 2014.

ECDC Epidemiological update: [Middle East respiratory syndrome coronavirus \(MERS-CoV\)](#) 1 October 2014

WHO. Middle East respiratory syndrome coronavirus (MERS-CoV) - Austria, [Disease Outbreak News](#), 2 October 2014.

Saudi Ministry of Health: [Press releases](#).

WHO Laboratory Testing for Middle East respiratory syndrome Coronavirus, [interim recommendations](#) (revised September 2014).

Lancet Infectious Diseases: [Case definition and management of patients with MERS coronavirus in Saudi Arabia](#). [WHO travel advice](#) on MERS-CoV for pilgrimages to Umra and Hajj.

NaTHNaC – [Advice for pilgrims](#): Hajj and Umra 1435 (2014).

Ministry of Health of Saudi Arabia. [Guidelines for pilgrims](#).

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