Sharp rise of MERS-CoV cases raises concern

In recent time, concern has been raised after the number of cases of Middle East respiratory syndrome coronavirus (MERS-CoV) has sharply risen in the Kingdom of Saudi Arabia (KSA) and the United Arab Emirates (UAE). The majority of these infections have occurred in hospitals amongst health care workers as well as in patients contacts.

Editorial note

Since the emergence of MERS-CoV in March-April 2012, the world was on heightened alert as the virus was novel, its source and mode of transmission remained undetermined and it caused deaths to almost half of the patients who were infected with the virus. The virus also showed its abilities to cause human-to-human transmission in closed settings.

The recent sharp rise in MERS-CoV cases from KSA and UAE triggered the concern because transmissions have occurred primarily in health-care facilities and simultaneously around the same time of the year in these two countries. Although health-care associated transmissions have occurred in the past with MERS-CoV, such a large cluster of healthcare workers (HCWs) acquiring infection in health care facilities have not been observed before (please see the table). The majority of infected healthcare workers had either no or only minor symptoms. Only four instances of transmission within households and no large family clusters have been reported (please see the table).

While this health-care associated transmission remains a concern, it is unclear at this point in time of the specific types of exposure in the health care facilities that have resulted in transmission of these infections. In view of such a big number of cases with nosocomial transmissions, it is important to fully investigate the recent hospital outbreaks in both these two countries in order to better understand the mode of transmission of the virus amongst the health care workers in health facilities as well as the route of infection. Such investigation will be important to identify the risk factors for spread of infection within healthcare facilities to better understand the potential modes of transmission to inform guidance and policy in infection control in health care facilities, and in directing national and international public health response.

Drawing on lessons learned during the SARS and the recent MERS-CoV outbreak, it is important to highlight that appropriate infection prevention and control measures are established and followed rigorously by all health care workers in all health care settings despite the type of care they are providing. The health facilities should act as a place for safe health care and not as an amplifier of infections. Based on the currently available information on transmission risk of MERS-CoV, standard precautions plus other additional measures such as droplet and contact precautions need to be applied in all health facilities.

Update on outbreaks in the Eastern Mediterranean Region

Novel Coronavirus in Saudi Arabia and UAE:

Current public health events of international concern [cumulative N of cases (deaths), CFR %]

Avian Influenza A (H5N1): 2003-2014
- Egypt [175 (63), 36%]
- Indonesia [195 (163), 83.6%]
- Viet Nam [126 (63), 50%]
- Global total [666 (391), 58.7%]

MERS-CoV: 2012-2014
- Saudi Arabia [272 (81), 30%]
- Jordan [5 (3), 60%]
- Oman [4 (4), 100%]
- UAE [36 (8), 22.2%]
- Kuwait [3 (1), 33.3%]
- Tunisia [3 (1), 33.3%]
- Qatar [9 (5), 60%]

Ebola Hemorrhagic Fever:
- Guinea [208 (136), 65.4%]
- Liberia [34 (11), 32.4%]

Wild poliovirus: 2013-2014
- Pakistan [140 (0), 0%]
- Afghanistan [18 (0), 0%]
- Syria [25 (0), 0%]
- Somalia [194 (0), 0%]
- Iraq [1 (0), 0%]

CFR=Case-Fatality Rate; # Suspected cases