

KISH P & I LOSS PREVENTION CIRCULAR KPI-LP-117-2013
(Middle East Respiratory Syndrome (Corona virus) - Worldwide)

► **Introduction:**

A dangerous and toxic virus has been reported to have originated in the Middle East, with most cases coming from the Arabian Peninsula (Jordan, Qatar, Saudi Arabia, and United Arab Emirates). Fifty-five people have been confirmed to be infected and more than half of the infected people have died. Several cases have also been reported in Italy, France, the UK, and Tunisia. People who have acquired this illness have either travelled to the Arabian Peninsula or come into close contact with a sick person who has travelled to that area.

► **What is MERS-CoV?**

Corona viruses are a large family of viruses that includes viruses that may cause a range of illnesses in humans, from the common cold to SARS. Viruses of this family also cause a number of animal diseases.

Middle East respiratory syndrome corona virus (MERS-CoV):

This particular strain of corona virus has not been previously identified in humans. There is very limited information on transmission, severity and clinical impact with only a small number of cases reported thus far.

► **Latest Updates By World Health Organization:**

Since April 2012, there have been 64 laboratory-confirmed cases of human infection with Middle East respiratory syndrome corona virus (MERS-CoV); 72% have been male. Thirty-eight of the confirmed cases have died. Affected countries in the Middle East include Jordan, Saudi Arabia, the United Arab Emirates (UAE), and Qatar. Cases have also been reported by four countries in Europe,

France, Germany, the United Kingdom (UK) and Italy, and by one country in North Africa, Tunisia. All of the European and North African cases have had a direct or indirect connection to the Middle East. However, in France, the UK, Tunisia and Italy, there has been limited local transmission among close contacts who had not been to the Middle East.

Among the new laboratory-confirmed cases of MERS-CoV reported since the last update on 31 May 2013, three have been reported by Italy. In this cluster, the index case, a 45-year-old Italian resident, travelled to Amman, Jordan in mid-April. He developed mild respiratory symptoms one day before returning home to Italy in late May. He was admitted to hospital with pneumonia 3 days after returning home. Nasopharyngeal (NP) and throat swabs taken on the day following admission were positive for MERS-CoV. He had no underlying chronic medical conditions, but was noted to be obese. He recovered and was discharged home after a week in hospital. Contact monitoring was conducted in Italy, and two developed respiratory symptoms: a 42-year-old co-worker and a 14-month-old close relative. Both tested positive for MERS-CoV. The two contacts had each been exposed to the 45-year-old man on a single day, and their illnesses began 3 and 4 days, respectively, after that exposure. Both had mild illnesses and recovered uneventfully. Follow up was also done on close contacts in Amman, Jordan. Four symptomatic and six asymptomatic contacts had NP swabs collected for testing; all were negative for MERS-CoV.

The Ministry of Health in Saudi Arabia has also notified WHO of additional laboratory-confirmed cases of MERS-CoV with onset

in late May and early June. These include cases from the Ta'if Governorate, Wadi Al-Dawaser, and Hafar Al-Batin; the first reported from these areas. The more recent cases were similar in age and sex to previously reported cases, except for a 2-year-old with chronic pulmonary disease from Jeddah.

Although the exact timing and nature of exposures that result in infection is usually unknown, for those cases for which exposure is known or strongly suspected, the incubation period for laboratory confirmed cases of MERS-CoV is generally less than one week. However, in at least one case the known exposure occurred 9 to 12 days prior to onset of illness. Further evidence in cases exposed over a range of time suggests that, at least in a minority of cases, the incubation period may exceed one week but is less than two weeks.

► **Summary assessment:**

The newest cases reported indicate that the source of infection, which has still not been determined, remains active in the Middle East and is present throughout a large area, including new regions in Saudi Arabia. The Italian case with history of travel to Jordan, suggests the continued risk of infection within Jordan, where no confirmed cases have been identified over 1 year despite ongoing surveillance. This cluster also represents the first time that a co-worker has become infected in a work setting other than a health care facility.

Two recent cases also represent the first documentation of infection in children, although one previously unconfirmed probable infection occurred in a Saudi teenager. While the virus continues to infect predominantly those who are middle aged or older, this demonstrates that children are also at risk of contracting MERS-CoV. In the two confirmed cases in children and the

previous probable case, the illness was relatively mild.

As reported in previous updates, human-to-human transmission has not been observed to persist beyond small clusters of individuals with close contact. However, it is likely that more sporadic cases with subsequent limited transmission will occur in the near future. The large number of cases with reported co-morbidities suggests that persons with underlying medical conditions may have increased susceptibility to infection. Health care facilities dealing with patients suspected of being infected with MERS-CoV should exercise appropriate infection control measures.

Clinicians should be aware that MERS-CoV infection may present atypically and initially without respiratory symptoms, in immunocompromised individuals.

Mariners who travel to & may have contact with infected areas are cautioned about the matter.