

## Rare Diseases Congress-2018: Clinical course and outcomes of critically ill patients with middle-east respiratory syndrome coronavirus infection - Abdulaziz Aldawood - King Saud Bin Abdulaziz University

### Abdulaziz Aldawood

King Saud Bin Abdulaziz University, Saudi Arabia

**Measurements:** Giving symptoms, comorbid conditions, pulmonary and extra pulmonary manifestations, actions of severity of illness and organ failure, ICU course, and outcome are labelled, as are the results of surveillance of fitness care workers and patients with potential exposure.

**Results:** Among December 2012 and August 2013, 114 patients were verified for supposed MERS-CoV; of those, 11 ICU patients (10%) met the meaning of complete or probable cases. Three of those patients were a part of a health care-associated cluster that also included 3 HCWs. One HCW became disappointingly ill and was the 12<sup>th</sup> patient during this case series. Middle Acute Physiology and Chronic Health Assessment II score was 28. All 12 patients had original comorbid circumstances and obtainable with acute severe hypoxemic respiratory disappointment. Most patients (92%) had extra pulmonary appearances, including shock, acute kidney injury, and thrombocytopenia. Five (42%) were alive at day 90. Of the 520 bare HCWs, only 4 (1%) were positive.

**Limitation:** The model size was small.

**Conclusion:** MERS-CoV causes severe acute hypoxemic respiratory failure and considerable extra pulmonary organ dysfunction and is related to high mortality. Municipal-acquired and health care-related MERS-CoV infection occurs in patients with chronic comorbid circumstances. The health care-associated cluster suggests that human-to-human transmission does occur with unprotected exposure. The virus was first isolated from a patient with fatal pneumonia and acute kidney injury in Jeddah, Saudi Arabia in June 2012. As of December 27, 2015, the World Health Organization (WHO) had reported 1,621 laboratory-confirmed cases, including a minimum of 584 (36 %) related deaths the bulk of cases have occurred in Saudi Arabia (80 %) and South Korea (12 %) In Saudi Arabia, multiple hospital outbreaks occurred in Alahsa Coronaviruses are a family of enveloped, single-stranded RNA viruses. They can pollute animals and humans and have the tendency to cross class. They cause a variety of illnesses that range from the common cold to severe respiratory illnesses virus has primarily

been detected in respiratory secretions; with the highest viral loads in the lower respiratory tract there is accumulating evidence that camels are the primary source for animal-to-human transmission of MERS-CoV. The virus has been isolated from dromedary camels Seropositivity was more common in men than in women, in central than in coastal provinces and in shepherds and slaughterhouse workers than in others MERS-CoV has been demonstrated among close household contacts and family members. WHO has issued guidance for the definition of MERS-CoV cases, The Centres for Disease Control and Prevention (CDC) recommends that droplet precautions should be added to standard precautions when providing care to all or any patients with symptoms of acute respiratory tract infection which a suspected or confirmed MERS-CoV case should be isolated in an airborne infection isolation room that's constructed and maintained according to current guidelines based on clinical criteria, exposure history and diagnostic? Diagnosis is, therefore, supported molecular testing by real-time reverse-transcription polymerase chain reaction. Gene fragments can be used for confirmation. MERS-CoV can be also diagnosed by seroconversion on two samples two weeks apart. Enzyme-linked immunosorbent assay can be used for screening and immunofluorescence assay (IFA) or neutralization for confirmation Because of the risk of transmission within the healthcare setting, appropriate patient isolation and strict implementation of infection prevention and control measures are crucial within the management of MERS-CoV cases. For suspected cases, the WHO recommends droplet and contact precautions. Early supportive management includes supplemental oxygen for hypoxemia, respiratory distress and shock and early invasive mechanical ventilation for significant Three of these patients were part of a health care-associated cluster that also included 3 HCWs. One HCW became critically ill and was the 12<sup>th</sup> patient during this case series. Median Acute Physiology and Chronic Health Evaluation II score was 28 respiratory distress or persistent hypoxemia. Proning is suggested within 36 h of ARDS onset for a minimum of 16 h, since this approach was related to reduce mortality compared with managing patients within the supine position.