

**P0075 Middle-East respiratory syndrome-Coronavirus long viral shedding in two patients with mild and severe symptoms**Fayssal Farahat<sup>1</sup>, Hassan Marhabi<sup>1</sup>, Asim Alsaedi<sup>1,2</sup>, Majid Mousa Alshamrani<sup>1</sup><sup>1</sup> King AbdulAziz Medical City, <sup>2</sup> King Saud bin Abdulaziz University for Health Sciences, Jeddah, Saudi Arabia

**Background:** Middle East Respiratory Syndrome (MERS-CoV) was first identified in Saudi Arabia in 2012. Till end of September 2018, a total of 2260 laboratory-confirmed cases of MERS-CoV, including 803 associated deaths (case-fatality rate: 35.5%) were reported globally; the majority of these cases were reported from Saudi Arabia (1882 cases, including 729 related deaths). Viral shedding would determine infection transmission and disease management.

**Materials/methods:** We report two cases of confirmed MERS-CoV disease with long viral shedding for 46 and 49 days, respectively. Repeated nasopharyngeal swabs were obtained from the first case on June 20<sup>th</sup> till August 8<sup>th</sup>, 2016 (total of 11 swabs). In the second case, repeated tracheal aspirates were obtained from April 11<sup>th</sup> till May 29<sup>th</sup> (total of 18 samples). Clinical samples were screened by real-time PCR (RT-PCR), with amplification targeting both the upstream E protein gene (upE) and ORF1a for confirmation.

**Results:** Both cases were females, the first was aged 57 years old house-wife and the second was 43 years old physician. Both cases had history of diabetes mellitus and contact with confirmed MERS-CoV case. The first case presented with diarrhea, no fever or respiratory symptoms, was home-isolated and recovered, however, the second case presented with shortness of breath, fever and cough, admitted to the hospital, mechanically ventilated and died.

**Conclusions:** The current report presented the longest duration of viral shedding identified in the literature in two patients, one of them was on home isolation with mild disease and the other had severe symptoms. Previous authors attributed viral shedding to severity of disease or underlying comorbidities. Type of sample played an important role where lower respiratory tract samples yield higher viral loads, however, in the current report, the first case showed prolonged viral shedding despite of mild symptoms and samples were obtained from upper respiratory tract. This report highlights the need to further clarify whether asymptomatic and mildly symptomatic persons play a role in transmitting MERS-CoV to others. Infection control measures should continue as long as virus can be detected regardless of the case severity.

