LETTER TO THE EDITOR

S Alsolamy, YM Arabi. Infection with Middle East respiratory syndrome coronavirus. Can J Respir Ther 2015;51(4):102-103.

The management of patients with MERS-CoV infection entails early case recognition, appropriate patient isolation, strict implementation of infection prevention and control measures, and supportive treatment. The WHO has issued interim guidance for the management of suspected and confirmed MERS-CoV infection (13). Early supportive management includes supplemental oxygen to all patients with signs of hypoxemia or respiratory distress, conservative fluid management, early endotracheal intubation in patients with labored breathing or persistent hypoxemia, and a lung-protective ventilation strategy (13). Other adjunctive hypoxemic rescue therapies, such as early prone positioning and neuromuscular blockade, may be considered in patients with moderate-to-severe acute respiratory distress syndrome (14). In addition, systemic corticosteroids should generally be avoided unless there is another indication. High-flow oxygen and noninvasive ventilation should be used with caution because of the potential to generate aerosols (15). A systematic review to assess the risk for transmission of respiratory pathogens to health care workers through aerosol-generating procedures found that the following procedures were associated with an increased risk for pathogen transmission: endotracheal intubation, noninvasive ventilation, tracheotomy and manual ventilation (15).

To date, there are no clinical trials involving humans for virus-specific therapies for MERS-CoV infection. Data regarding ribavirin, interferon and convalescent plasma are limited (9). Other medications, such as mycophenolic acid, chloroquine, chlorpromazine, lopinavir and lopinavir-ritonavir, have shown an inhibitory effect on MERS-CoV replication in vitro; however, in the absence of clinical data, these drugs are not recommended for clinical use outside clinical trials (16).

The overall case-fatality rate of MERS-CoV infection is 35%, but the mortality rate of mechanically ventilated patients reaches 60% to 70% (12). Given the potential for transmission in the health care setting, compliance with infection control measures is critical. According to WHO guidelines, droplet precautions should be added to the standard precautions when providing care to all patients with symptoms of acute respiratory infection. Contact precautions and eye protection should be added when caring for probable or confirmed cases of MERS-CoV infection, and airborne precautions should be applied when performing aerosol-generating procedures with MERS-CoV patients (13). The Centers for Disease Control and Prevention (Georgia, USA), on the other hand, recommends using airborne precautions with MERS-CoV patients at all times (19). Hospitals should develop an infectious disease emergency response plan. After more than three years since the first MERS-CoV patient was identified, this virus continues to be a significant global threat because of its high fatality rate and the gaps in our knowledge about the disease.

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