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LETTER TO EDITOR

Use of external ventilator control panel for mechanical ventilation in patients with severe SARS-CoV-2 infection

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Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection has caused a global pandemic affecting over 13 million people as of 14 July 2020.¹ Invasive mechanical ventilation may be required in 20% of hospitalized patients² and in up-to 88% critically ill patients with SARS-CoV-2 infection.^{3,4} There is increased utilization of personal protective equipment (PPE)



Figure 1. Image displaying the external ventilator control panel used from outside of the room on a prone, mechanically ventilated patient with severe SARS-CoV2 infection.

during the care of patients with severe COVID-19 infection, while there is worldwide shortage of PPE. $^{\rm 5}$

We describe our single-center experience with the external ventilator control panel, where the ventilator control panel is placed outside the intensive care room (Figure 1). This method enables respiratory therapist and respiratory physician to perform ventilator changes from outside the room, without having to go inside the room. Advantage of this method includes decreased utilization of PPE and exposure time inside the room; and disadvantages are; unable to perform common functions such as giving 100% oxygen breaths, changing ventilator modes and settings during weaning process, accessing ventilator graphics while physically accessing the patient, and the inability to pause ventilation when necessary. We have treated 10 mechanically ventilated patients using external ventilator control panel, and there was no report of adverse outcomes.

Conflict of interest. C.P. is Consult for Chiesi USA. AA and AC were involved in writing aspects of this manuscript. PC and LD were involved in taking photograph of external ventilator control panel.

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