

Feasibility of shared mechanical ventilation

Factibilidad de la ventilación mecánica compartida

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We read with interest the letter to the editor sent by Dr. José Luis Sandoval Gutiérrez, where he comments our publication on simultaneous mechanical ventilation for several patients with a single ventilator.¹ Therein, he points out that, due to the variability of lung mechanics and the state of severity of patients with acute respiratory distress syndrome, there would be treatment complications; he concludes that it is not yet possible claiming that “where one can be ventilated, two can be ventilated as well.”

In this regard, we specifically answer:

1. In our article, we clearly mention that candidates must have similar pathophysiological processes, for example, COVID-19 pneumonia, and similar conduction pressure, to achieve acceptable tidal volumes and avoid ergotrauma.
2. Recently, at New York Presbyterian Hospital, Dr. Jeremy R. Beitler and his team successfully carried out shared ventilation for 48 hours in three pairs of patients. The publication is in press.²
3. There are variations to this technique whereby two oxygen blenders and positive end-expiratory

pressure (PEEP) valves are installed on each branch of the ventilator inspiratory and expiratory circuits, respectively, to dose the fraction of inspired oxygen and PEEP to each patient.³ Although, as Dr. Beitler himself points out in his article, “these biomedical engineering solutions in the presence of a shortage of ventilators and equipment, due to the urgency of circumstances, are not the best clinical solution in this context”.

4. Fortunately, we have not had the need to apply this technique in Mexico, but we can conclude that “where one patient can be ventilated, two can be (safely) ventilated as well”.

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