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Commentary

The Structured Education Approach in Mechanical Ventilation: Letter to the Editor

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LETTER TO THE EDITOR

Dear Editor, Proper setting of the ventilator is one of the most important and basic skills in the intensive care unit. Lack of familiarity staff and unprincipled setting can have harmful complications and consequences in the patient's recovery process. Impaired ventilation, oxygenation, and ventilator induced lung injury are among these complications [1]. On the other hand, the important goals of mechanical ventilation based on avoiding over assist, under assist and patient/ventilator synchrony also depend on performing basic settings [2].

Currently, different methods and approaches are used to train employees in the discussion of mechanical ventilation. Despite the variety of teaching methods, there are still learning challenges in this regard about how to set the appropriate parameters and changes. It seems that due to the practicality of ventilator learning, more connection should be made between theoretical and practical knowledge in this regard. The multiplicity and dispersion of regulatory parameters is also a factor for inadequate learning and instability of learning. Therefore, based on mechanical ventilation indications include: failure to ventilation and failure to oxygenation, The VOPs approach is proposed as a structured method [3]. Accordingly, the operator knows the need to make adjustments in the three dimensions of ventilation, oxygenation and the patient. V means Ventilation refers to the volume of air that enters and leaves the lungs frequently and in specific proportions. Regulatory parameters in this dimension include tidal volume, respiratory rate and inspiratory ratio expiratory. O means Oxygenation; refers to the setting of parameters that help improve oxygenation, such as: Fio2 and PEEP. Finally, P means Patient, which refers to the setting of parameters that improve patient coordination and support, such as: Trigger and Pressure Support (Figure 1). The application of these parameters is when the patient is relatively conscious and breathing spontaneously. They can be used to determine the amount of support needed and to establish proper synchrony between the patient and the ventilator. S is also the abbreviation for the last name of the proposer, Saeid. In general;



Figure	1: Practicality	of ventilator	learning
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V (Ventilation): TV or PC, RR, I; E

O (Oxygenation): Fio2, PEEP

P (Patient): Trigger, PS

Based on this approach, the operator knows what parameters to set with what purpose and in case of change in the patient's condition, the parameters should be manipulated in accordance with the principles. This approach will help to better understand the detail concepts, their application and even general concepts such as mechanical ventilation modes. In mechanical ventilation, mode determines the patient contribution in the ventilation process. Based on the P-related parameters in the VOPs approach in fashion, one can judge the nature of its performance. In proportion to the absence or adjustment of these parameters, it will indicate that the mode is mandatory and the patient is passive. This approach will create better stability in learning and recalling content by creating a clear, purposeful and practical classification.

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CONFLICT OF INTEREST

The author has nothing to disclose and also state no conflict of interest in the submission of this manuscript.

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