

ORIGINAL PAPER

Identifying Predictors of Successful Weaning off Prolonged Mechanical Ventilation among the Elderly in an Israeli Respiratory Care Facility

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Abstract

Background: Outcomes for patients undergoing prolonged mechanical ventilation remain less than desirable; costs, morbidity, and mortality are notably high. Therefore, patients should be weaned from mechanical ventilation as soon as possible. Weaning is a complex process in the case of elderly patients with comorbidities on prolonged mechanical ventilation.

Aims: To determine predictors of successful weaning off prolonged mechanical ventilation among the elderly patients.

Methodology: It is a retrospective chart review study. Medical records of 58 patients in the respiratory care unit of a large long-term care facility for the elderly in central Israel, divided to those successfully weaned off prolonged mechanical ventilation and those whose weaning had failed, were analyzed for their demographic and clinical data. Twenty-eight patients had been successfully weaned.

Results: Twenty-eight patients had been successfully weaned. Successful SBT (spontaneous breathing trial), less comorbidities, and lower PCO₂ levels one month post-admission, were found as significant predictors of successful weaning off prolonged mechanical ventilation among the elderly patients.

Conclusion: These factors might serve as a predictive tool of weaning outcome of the elderly patients from prolonged mechanical ventilation.

Key words: Predictors, prolonged mechanical ventilation, weaning off