

Our Editor's Choice paper, by Lowe and colleagues, is an evaluation of a respiratory care protocol in the pediatric intensive care unit (PICU). Implementation of a beta-agonist/airway clearance protocol resulted in significant reductions of interventions, and improved outcomes with decreased length of stay and ventilator days. Wheeler points out that reducing practice variation through standard care protocols and clinical pathways has been shown to reduce the costs associated with care, shorten the duration of mechanical ventilation, and reduce the length of stay in the PICU in a number of studies reported in this Journal.

The aim of the study by Walsh et al was to assess the utility of daily goal establishment and a computer-aided visualization of variance. Daily goal formation and computer enhanced visualization of mechanical ventilation variance was associated with an improvement in goals attainment by evidence of an improved single score of mechanical ventilation. Verbrugge and Jorens state that, although the authors demonstrated that process compliance increased as a result of their interventions, this is no guarantee of better patient outcomes. But it allows the clinician to make an informed, and hopefully better, treatment decision.

The study by Smith and colleagues assessed current needs of respiratory therapists (RTs) in New York State, to better understand how RTs perceive their future clinical and academic roles. Their findings emphasize that viability of the RT profession in the current health care environment calls for the evolution of a more autonomous RT, who can be reimbursed for services and obtain salaries that are competitive with other health professions. In their editorial, Kacmarek and Walsh make a passionate plea to increase the educational degree for entry level into the respiratory care profession.

The aim of the study by Sant'Anna et al was to develop a standardized protocol to evaluate activities of daily living (ADL) performance in subjects with COPD, the Londrina ADL Protocol, and to assess the validity and reliability of the protocol in this population. The Londrina ADL Protocol was a valid and reliable protocol to evaluate ADL performance in subjects with COPD. It can be used in clinical practice to investigate ADL outcomes, including studies that require gas analysis and the need for wearing a mask.

The study by Paes et al aimed to verify the reproducibility and validity of the Londrina ADL protocol in physically independent adults aged 50 years and older, and to establish an equation to predict reference values of the Londrina ADL Protocol. The Londrina ADL Protocol was reproducible and valid in this population, and a reference equation for the protocol was established including only age as an independent variable.

The objective of the study by Bozkus and colleagues was to investigate the incidence of microalbuminuria and whether it was associated with physiological and clinical features in a subject group that was classified according the Global Initiative for Chronic Obstructive Lung Disease stages. The results of this study indicate a strong relationship between microalbuminuria and cardiovascular events in COPD subjects, particularly in subjects with more symptoms and high future risk.

Spielmanns et al investigated the benefits of a low volume outpatient whole body vibration training (WBVT) program

on exercise capacity in comparison to a calisthenics-training program in subjects with COPD. A low volume WBVT program resulted in clinically relevant larger improvements in exercise capacity compared to calisthenics exercises in subjects with mild to severe COPD.

Okuro et al compared performance during the 6-min walk test (6MWT) and the estimated indexes of functional capacity from the 6MWT between individuals with cystic fibrosis (CF) and healthy individuals, as well as the relationship among these indexes and disease severity, pulmonary function, and nutritional status in CF. They found that alternative indices can be useful as complementary outcomes and to provide a better understanding of limiting factors of exercise response in children and adolescents with CF.

Azeredo et al evaluated the integrative weaning index (IWI) in critically ill elderly subjects. The IWI evaluates, in a single equation, respiratory mechanics, oxygenation, and respiratory pattern. Age did not influence weaning outcome. In this population, the IWI was the only respiratory variable associated with mechanical ventilation weaning.

In a porcine model of lung injury, Hochhausen and colleagues investigated the use of electrical impedance tomography (EIT) on the setting of PEEP. PEEP setting by EIT facilitated an individualized ventilation therapy. However, no significant differences appeared in common clinical parameters compared with a control group.

The objective of the study by Huyett and colleagues was to determine the incidence and risk factors associated with the development of radiographic mastoid and middle ear effusions in ICU subjects. Radiographic mastoid and middle ear effusions were identified in 10.3% of subjects and should be considered in patients with prolonged length of stay, presence of an endotracheal tube or nasogastric tube, and concomitant sinusitis. Mastoid and middle ear effusions are a potential source of fevers and sensory impairment that may contribute to delirium and perceived depressed consciousness in ICU patients.

He and colleagues elicited veterans' preferences toward modern versus traditional positive airway pressure data download, including subject attitudes and factors affecting those preferences. Veterans placed a high value on the potentially competing concerns of convenience and information privacy. Veterans preferring modern factored convenience as important in their decision-making, independent of privacy concerns.

The aim of the study by Li et al was to demonstrate the reliability of a new parameter to define airway limitation as a surrogate for the FEV_1/FVC . The new parameter was calculated as the area under the descending limb of the expiratory flow-volume curve before the end of the first 3 s (AUC_3) divided by the area of the triangle before the end of the first 3 s (AT_3). They report that AUC_3/AT_3 can be utilized as a surrogate parameter for the FEV_1/FVC when patients cannot complete a 6-s expiratory effort.

Martinasek and colleagues explored the differences among smokers of waterpipe tobacco in a college student population, to better inform campaigns to curb waterpipe use. Young adult college students continue to engage in waterpipe tobacco smoking at high rates. Campaigns need to focus on subsets of smokers and nonsmokers, independently.