# Editor's Commentary

This month we publish 4 editorials, 6 original research papers, a case report, a teaching case, and 4 book reviews. We also publish the abstracts that will be presented at the RESPIRATORY CARE OPEN FORUM, as part of the 54th International Respiratory Care Congress in Anaheim this December.

The open lung approach uses recruitment maneuvers and high levels of PEEP. The intent of such a strategy is to decrease the amount of lung injury resulting from repeated alveolar opening and closing. The use of this approach, however, is controversial for several reasons. First, it has the potential to subject already open alveoli to higher pressures, which might be injurious. Second, recruitment maneuvers may not produce important improvements in $P_{aO_2}$ in all patients. Third, whether or not recruitment maneuvers afford a survival benefit has not been shown. In this issue of the Journal, Meade et al report a clinical physiologic study of recruitment maneuvers and they concluded that their results do not support the addition of scheduled recruitment maneuvers to usual treatment for ALI or ARDS. As Stapleton appropriately points out in an accompanying editorial, this study joins a growing body of literature that suggests that routine use of recruitment maneuvers in patients with acute lung injury is not beneficial and may be harmful. It may be that patients likely to benefit from recruitment maneuvers are those with the greatest amount of lung edema and are at the greatest risk of dying from refractory hypoxemia.

Deciding which ventilator will be adopted is one of the most important purchasing decisions made by a respiratory care manager. Published objective evaluations of ventilator performance can help when making such decisions, and the study by DiBlasi et al may be useful in this regard. As pointed out in an accompanying editorial by Brown, there are few evaluations of neonatal ventilators in the peer-reviewed literature. DiBlasi et al found significant differences in ventilator-imposed expiratory resistance between neonatal ventilator brands at various PEEP, tidal volume, and frequency settings. Because this was a laboratory evaluation, additional studies are needed to determine the clinical relevance of these findings.

Readers of RESPIRATORY CARE commonly treat patients with COPD. It is therefore interesting to learn about sex differences in ambulatory visits for COPD, as reported by Suh et al. From 1995 to 2004, COPD-related out-patient visits increased for both sexes, oral corticosteroids and short-acting bronchodilators were the most commonly prescribed drugs for both sexes, and inhaled-corticosteroid prescriptions decreased in both women and men. Although COPD visits increased among patients of both sexes, the upward trend in COPD visits among women indicates that COPD is no longer a male-dominated disease.

Pulse oximetry is commonly used in the assessment of patients with respiratory disease. There was a potential for error in the measured oxygen saturation in the presence of nail polish in older generations of digital pulse oximeters. Yamamoto et al evaluated whether nail polish affects pulse oximetry measurements in mildly hypoxic subjects at high altitude with 2 brands of pulse oximeter and oximetry probe, and 9 different nail polish colors. Nail polish had no significant effect on the oxygen saturation measured by pulse oximetry in the mildly hypoxic healthy subjects in this study. Although these data suggest that modern pulse oximeters may be less likely to be affected by the presence of nail polish, it may nonetheless be prudent to remove nail polish, if possible, when making measurements of oxygen saturation by pulse oximetry. It is also important to appreciate that there have been no studies of the effect of elaborate custom nail decorations.

This month we publish a paper related to the science of respiratory care education. Rye used an action research approach to implement the contract-learning method into a clinical respiratory care course. The contract learning approach was found favorable to students' knowledge and skills acquisition. Perhaps this approach is one that other programs should consider incorporating into the clinical education of respiratory care students.

Noninvasive ventilation (NIV) is being used increasingly in patients with acute and chronic respiratory failure. Fauroux et al conducted a survey in France to evaluate the use of NIV in patients with cystic fibrosis. They found that NIV was being used in only 168 of 4,416 patients with cystic fibrosis. NIV was used more often in adult centers than in pediatric centers, and is used as first-line therapy for severe acute hypercapnic respiratory failure and with sleep disturbance. Although there are potential benefits of NIV in this patient population, few of those benefits have been proven. Although surveys such as this provide insight into the use of NIV in patients with cystic fibrosis, high level studies are necessary to determine when this therapy should be used.

NIV is also commonly used in patients with neuromuscular disease. Kelly et al describe the use of NIV in a patient with adult-onset nemaline myopathy. The initiation of NIV in this patient resulted in stabilization of the patient's respiratory function. In an accompanying editorial, Boitano describes many of the practical aspects of the application of NIV in patients with neuromuscular disease. Clinicians who do not commonly care for patients with neuromuscular disease receiving NIV will benefit from the useful tips in this editorial.

This month's teaching case is by King et al from the Walter Reed Army Medical Center in Washington DC. It describes a case of severe bullous lung disease due to marginal-zone-lymphoma-associated amyloidosis. Bullous lung disease from amyloidosis can be progressive and severe. The authors make the teaching point that amyloidosis should be considered in the differential diagnosis of bullous lung disease.

Finally, this month we publish the 268 OPEN FORUM abstracts that have been accepted for presentation at the 54th International Respiratory Care Congress. We are pleased to publish an accompanying editorial by RESPIRATORY CARE Editor Emeritus Pierson. This editorial includes a practical users' guide for attendees of the OPEN FORUM to facilitate a critical appraisal of the validity and importance of the abstracts presented. This editorial is a must read for attendees not only of the OPEN FORUM, but for those attending abstract presentations at any venue.