Our Editor's Choice paper examines respiratory therapists' (RTs) experiences and attitudes regarding terminal extubations and end-of-life care. Grandhige and colleagues surveyed RTs at 2 academic medical centers about their experiences caring for patients with terminal extubations. They found that RTs are rarely involved in end-of-life discussions despite a desire to be, and they experience situations that generate discomfort. Strickland suggests that integrating content regarding ethical decision-making, end-of-life care, withdrawal of life support, and palliative care not only into the entry-to-practice curriculum, but also into post-graduate continuing education for RTs, as this is vital to improving the RTs' ability to participate and contribute to higher quality care for the patient at the end of life. RT integration into care teams focused on palliative care and end-of-life care, as well as into primary care teams in the ICU, will not only enhance collaboration but also improve patient care.

The purpose of the study by Burnett et al was to investigate the prevalence of exercise-induced bronchoconstriction (EIB) by a self-report questionnaire, and the perceived impact of EIB in college athletes. A majority of athletes reported a history or current symptoms related to EIB or asthma, many were not taking any asthma medication, and they reported concern about EIB adversely affecting their sports performance. As pointed out by DeJuilio, signs and symptoms of EIB should be taken seriously, and Burnett and others have shown that this is not always the case. This study supports the need for future educational programs that should include athletes, families, trainers, coaches, and teachers.

McConnell et al conducted an observational study to assess the proportion of subjects with an arterial blood gas (ABG) result within 60 min of mechanical ventilation initiation. A post-intubation checklist and time out improved the timeliness of mechanical ventilation monitoring through more rapid assessment of ABGs. Unfortunately, however, there was only moderate adoption of the checklist. The authors propose that implementing this peri-intubation procedure may reduce the risks associated with transitioning to mechanical ventilation. Poon and Kritek suggest that perhaps a simpler checklist needs to be developed. Maybe clinical champions of the checklist need to be identified. The answer to creating and sustaining a program that assures timely completion of routine processes after intubation remains to be found, but we can learn from the experiences of this study.

In their study, Berlinski and Cooper hypothesized that using a soft mist inhaler (SMI) and changing the delivery route from tracheostomy to oronasal will increase lung dose. They found that, in general, an SMI delivers higher lung dose than a pMDI when using a metallic spacer during oronasal and tracheostomy route with the latter providing higher lung dose.

To develop normal values, Carrillo and colleagues evaluated diaphragm thickness measurements with a two-dimensional B-mode ultrasound at rest in healthy subjects. They found that real time ultrasound of the diaphragm is a simple, inexpensive and portable imaging technique that can provide qualitative anatomical information.

The purpose of the study by Efstathiou et al was to examine the relationship between handgrip strength and maximum inspiratory pressure in healthy young and middle-aged individuals. Their results showed significant correlation between hand flexor force and strength of inspiratory muscles in healthy individuals. This study should be viewed as hypothesis-generating and further studies are required in critically ill or difficult-to-wean patients.

De Vito and colleagues determined the CO_2 rebreathing response in subjects with late-onset Pompe disease. They found that subjects with late-onset Pompe disease had an impaired hypercapnic respiratory drive response. The clinical impact of this phenomenon in this patient subset warrants further investigation

The aim of the study by Reychler et al was to observe the reproducibility of sputum color identification by different categories of health caregivers using a sputum color chart. They found that, even if a sputum color chart is a useful tool for the clinician in the context of a clinical deterioration, it presents a non-uniform reliability regarding the caregivers and their category.

The purpose of the study by Jacobsen and colleagues was to examine socioeconomic variations in use of prescription medicines among elderly subjects with COPD. They found that there were no systematic socioeconomic differences in the use of relevant prescription medicines in elderly subjects diagnosed with COPD in hospital settings. Their findings do indicate a gap between guideline recommendations and observed use of long-acting bronchodilators, and thus suboptimal quality-of-treatment in the elderly COPD patient population.

Cystatin C (CysC) is a biomarker of renal function, and an independent risk factor for all-cause and cardiovascular mortality among elderly persons. The aim of the study by Hu et al was to examine the prognostic role of CysC for mortality of COPD exacerbations. They found that CysC was a strong and independent risk factor for hospital mortality in COPD exacerbations.

The study by Lee and colleagues used the National Health Insurance Research Database in Taiwan to examine the risk factors for tracheostomy in infants with congenital heart disease (CHD) and to evaluate the associated mortality risk in those who received a tracheostomy. Infants with CHD had an increased risk of undergoing tracheostomy. The mortality risk was significantly increased in infants with CHD and tracheostomy, and the risk increases progressively with time.

Tang et al evaluated prognostic factors for acute organophosphorus pesticide poisoning. High 6-h post-admission blood lactate levels, low blood pH, and low post-admission 6-h lactate clearance rates were independent prognostic factors identified by multivariate logistic regression analysis.