In our Editor's Choice paper, Powell et al implemented a rapid cycle plan, do, study, act initiative to reduce unplanned extubations in the neonatal ICU (NICU). They found that staff underestimated the prevalence of unplanned extubation, but recognized the need for improvement. A rapid cycle plan significantly reduced the unplanned extubation rate. As stated by Hulse and Mai, this work adds to a growing number of studies demonstrating the success of individual NICUs in reducing unplanned extubations by applying quality improvement processes.

Cockerham and colleagues report the results of a quality improvement project to improve timeliness between bronchodilator treatments when patients are moved from the emergency department (ED) to medical wards. They were able to significantly decrease the time between the last assessment and bronchodilator treatment in the ED and the first assessment and treatment in the medical ward for subjects with asthma. Improvement was seen in all studied parameters despite similar volumes in ED visits. As pointed out by Habib and Maselli, this study exemplifies how a problem was identified in the delivery of asthma care and strategies were initiated to address this problem.

The objective of the study by Nyland and colleagues was to assess the effectiveness of a proactive respiratory protocol on an in-patient ward to identify trauma subjects at risk for pulmonary complications, administer appropriate therapies, and prevent deterioration requiring transfer to the ICU. The respiratory protocol was associated with an elimination of unplanned admissions to the ICU. After controlling for injury severity and other important clinical factors, the protocol significantly decreased hospital length of stay by approximately 1.5 d. More subjects were admitted from the ED directly to the ward, avoiding the ICU. Greiffenstein and Forrette observe that this respiratory protocol constituted a significant impact on respiratory care resource utilization.

The purpose of the study by Poureslami et al was to evaluate understanding of physician instructions on asthma management and inhaler techniques in Punjabi and Chinese subjects using educational interventions in their native languages. The educational interventions developed were successful in behavioral modification, and beneficial beyond usual care in terms of improving proper use of inhalers and understanding of physician instructions. The findings can be translated to health education practice, promoting the development of short, simple, and culturally and linguistically appropriate learning materials for patients.

Wirth and colleagues hypothesized that, by using an active expiration assistance system, larger minute volumes could be generated without causing auto-PEEP, compared to conventional mechanical ventilation, when using small lumen tracheal tubes or a cricothyrotomy catheter. They found that an active expiration system could generate a reasonable minute volume via small lumen tubes or thin catheters.

The purpose of the study by Luedloff et al was to investigate the accuracy of displayed expiratory tidal volume in a ventilator commonly used in small infants, with or without a proximal flow sensor, and using three methods to achieve a target V_T in both a healthy and lung-injured neonatal pig model. They found that, when the Servo-i ventilator was used in neonates, circuit compliance compensation or the in-line sensor should be employed due to the large positive bias and imprecision seen with circuit compliance compensation off and no sensor in-line.

The study by Gomes and colleagues compared the immediate effects of retrograde rhinopharyngeal clearance with nasopharyngeal aspiration in children admitted with acute viral bronchiolitis. The use of rhinopharyngeal clearance in the management of infants with acute viral bronchiolitis can be an alternative for the clearance of the upper airways, as it showed immediate positive results on the occurrence of complications and signs of respiratory effort compared with nasopharyngeal aspiration. Children classified with a moderate clinical score appeared to benefit most.

Gruet and colleagues evaluated the 1-min sit-to-stand test in adults with cystic fibrosis, and its relationships with cardiopulmonary exercise test, 6-min walk test and quadriceps strength. They found that the sit-to-stand test could not be used as a replacement of cardiopulmonary exercise test to accurately assess peak exercise capacity in subjects with cystic fibrosis. The sit-to-stand test may have utility in detecting patients with cystic fibrosis who may exhibit a high level of oxygen desaturation during heavy exercise.

A reduced forced vital capacity (FVC) can increase the ratio between $FEF_{25-75\%}$ and FVC, which is called high dysanapsis. Vilozni et al evaluated the relationship between dysanapsis and the cardiopulmonary response to exercise in children with congenital heart disease. They found that, in children and adolescents with corrected congenital heart disease, high dysanapsis was associated with a lower ventilatory capacity and reduced aerobic fitness.

The study by Raab et al investigated whether respiratory function was a discriminator of pneumonia in individuals with spinal cord injury, and to determine the best predictive parameter. They found that maximal inspiratory pressure was the best discriminator of spinal cord injured individuals with vs without pneumonia. Individuals with a maximal inspiratory pressure below threshold values are at risk of pneumonia.

The purpose of the study by Kera and colleagues was to compare oral and physical characteristics in elderly people with and without a history of pneumonia. In community-dwelling elderly people, pneumonia was not associated with swallowing, but rather with skilled tongue control, which prompts a reexamination of what constitutes being at risk for pneumonia.

Chen et al assessed upper airway configuration in obstructive sleep apnea syndrome (OSAS) using computed tomograpy imaging during Müller's maneuver. Subjects with severe OSAS had more significant abnormalities of the upper airway. Obesity and gender should be taken into account when evaluating the abnormalities of upper airway anatomy in snorers and patients with OSAS.

Tiwari presents a cross sectional study of slate pencil cutting workers to evaluate the effect on peak expiratory flow and the epidemiological factors associated with silica exposure. Peak expiratory flow was found to be significantly reduced in those ≥40 y old, female, having duration of exposure >10 y, and having respiratory morbidity. The reduction in peak expiratory flow was not significant for smokers.

The study by Chino et al was conducted to determine the risk factors for post-bronchoscopy pneumothorax. Pneumothorax occurred significantly more frequently when bronchoscopy was performed for subinterlobular pleural lesions. Close attention and care should be taken during bronchoscopy when target lesions are abutting the interlobular pleura.