





Forced oscillation technique for optimising PEEP in ventilated extremely preterm infants

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PEEP during ventilation of extremely preterm infants, evaluated by bedside forced oscillation technique in the first week of life, is lower than clinically set PEEP, suggesting that surfactant treated lungs can be easily overdistended even at low PEEP <http://bit.ly/2FW1ZAQ>

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To the Editor:

Ventilatory settings are critical in mechanically ventilated extremely preterm newborn infants due to the risk of ventilation-induced lung injury (VILI) and the subsequent development of bronchopulmonary dysplasia (BPD) [1]. Positive end-expiratory pressure (PEEP) settings usually rely on blood gases, oxygen requirement, lung auscultation, evaluation of chest radiograph and assessment of the pressure/volume curves provided by ventilators. Studies of optimal PEEP settings in the surfactant-treated preterm infant in need of mechanical ventilation are limited and evidence-based clinical guidelines are sparse [2, 3]. A bedside method identifying the PEEP value that comprises maximal lung volume recruitment and minimising tissue overdistension could improve real-time optimisation of PEEP and potentially minimise the risk of VILI and BPD [4, 5].