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ERJ Eur Respir J 2019; 54: 1900259 | DOI: 10.1183/13993003.00259-2019

Effect of change of body position in spontaneous sleeping healthy infants on SF₆-based multiple breath washout P.D. Robinson et al. Research Letter Effect of body position change in healthy sleeping infants on SF₆-based MBW

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To the Editor:

Reference values previously published in the *European Respiratory Journal* for sulfur hexafluoride (SF₆)-based multiple breath washout (MBW) [1] highlight that lung clearance index (LCI) values were significantly higher in infancy (*i.e.* first two years of life) compared with the later preschool age range (2–6 years). A number of factors were postulated in recent American Thoracic Society (ATS) preschool MBW technical standards [2]: ongoing lung and chest wall development [3]; use of sedation and supine testing position in infancy; and relatively larger equipment-related dead space volume (V_D) in younger subjects. Use of alveolar-based LCI to correct for V_D did not change this pattern suggesting minimal V_D impact as a mechanism to explain these changes [4]. Specific to body position, infants are tested supine (as asleep) and preschoolers are tested sat upright (as awake). The impact of changing body position remains unclear on MBW outcomes. Our aim was to investigate effect of body position on ventilation distribution, resting lung volume (functional residual capacity; FRC) and breathing pattern in healthy infants during spontaneous sleep.