Background and aims Birth weight has been used as a marker of adiposity in neonates. Ponderal index incorporates infant length and is used in place of body mass index (BMI) in infants. Skinfold thickness and anthropometric measurements can be unreliable in the first few days of life. Infant body composition can be measured using air displacement plethysmography. Our aim was to explore the relationship between birth weight and neonatal body composition.

Methods Infant birth weight and anthropometry were recorded. Infant body composition was measured within 3 days of delivery using air displacement plethysmography (PEA POD, Cosmed, Rome, Italy). Term infants born between 37–42 weeks were included in analysis. Data were analysed using SPSS Statistics 19.

Results Measurements were performed on 467 (227 (49%) male and 240 (51%) female) term neonates (37.8 ± 1.7 weeks, 2.7 ± 0.7 kg) within the first 72 h of life. Mean birth weight and percentage body fat were 3.38 kg and 9.7% in males and 3.42 kg and 11.3% in females. Infants in the top quartiles of birth weight had higher body fat percentage. A multiple regression was run to predict body fat percentage from birth weight, gestation and gender. 35.7% of variance could be explained by these variables.

Conclusions Birth weight, gestation and gender only have a moderate effect size on infant body fat percentage at birth, therefore birth weight is not a reliable marker of infant adiposity.

Oxygen Saturation and Surfactant

PS-276 PRETERM INFANTS EXHIBIT INCREASED PLATELET ADHESION TO VWF UNDER CONDITIONS OF ARTERIAL SHEAR

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Background/aims Preterm infants have higher rates of haemorrhagic diathesis and respiratory complications than terms and adults. Platelets play a key role in haemostasis but detailed