Background: Anthropometric indicators are difficult to interpret in very low birth weight (VLBW) premature infants, including both appropriate for gestational age (AGA) and small for gestational age (SGA) infants. Therefore, the purpose was to describe the anthropometric indicators of growth and nutritional status in VLBW premature infants AGA and SGA, hospitalized in a neonatal intensive care unit (NICU). Study design: The descriptive and prospective study design included 114 preterm infants, adequate for gestational age/small for gestational age hospitalized in the intensive care unit. Head, thigh, mid upper arm circumference, skinfold measurements and weight/age, length/age, and weight/length indices were obtained. Correlations were made among the anthropometric indices, and a multivariate regression analysis with weight/age as dependent variable was performed. Results: Weight/age in AGA premature infants had high number of significant anthropometric correlations. The SGA premature infants had few and weak correlations. The regression analysis showed that anthropometric indices better explain changes in the weight/age index in adequate for gestational age premature infants. Conclusion: Weight/age in the VLBW/AGA premature infants could reflect growth, nutritional status and energy stored as fat, but in the VLBW/SGA premature infants, thigh circumference and mid arm circumference would be better indicators just of nutritional status.

Keywords
Premature infants, Anthropometric indices, Intensive care.