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Following Growth in Preterm Infant

Short Communication

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Adequate nutrition is important for growth of the preterm infants. Close follow up of the growth on the standardize growth curve remains the mainstay of nutritional assessment among the preterm infants. In this report we highlight on the need for using a combination of z-score difference, weight gain velocity, and weight gain ratio (WGR) in the assessment of growth of a preterm infant. This infant was born at 25 weeks of gestation with birth weight of 335 grams. Infant was provided total parental nutrition gradually transitioned to fortified human milk.

Figure 1 depicts the role of z-score difference and weight gain ratio (WGR) in following the growth of preterm infant. As noted that Z-score improved over time (from -2.95 to -2.27). When WGR is plotted it is noted that the point fell above the 97% (Figure 2). It is also noted the weight gain velocity was 12.6 g/kg/d, the point fell between 3% and 10% on the curve (Figure 2) [1]. As evidenced by the figures, combining all these three indices helps providing assurance to the providers and family that the growth is adequate.

Although, we used only weight as the growth parameter in this description, same principle could be applied to the head circumference and length measurements.

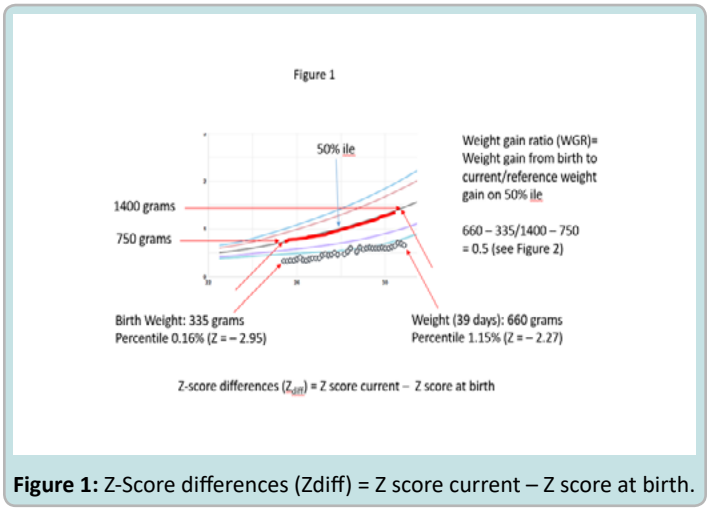
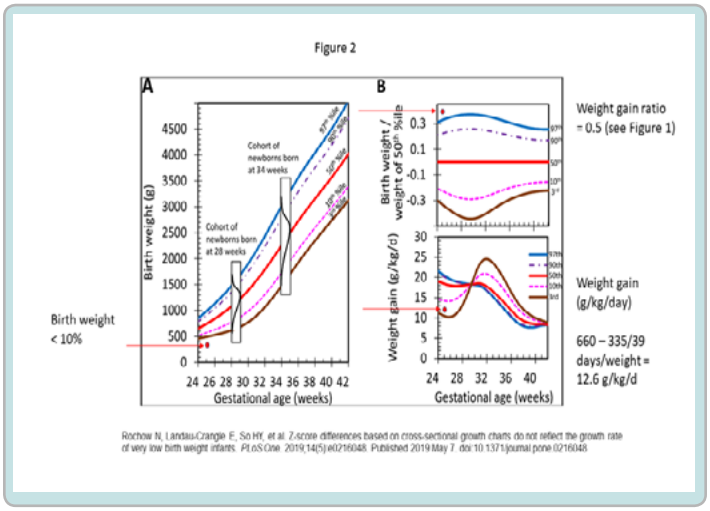


Figure 1: Z-Score differences (Zdiff) = Z score current – Z score at birth.



References:

1. Rochow N, Landau-Crangle E, So HY, et al. Z-score differences based on cross-sectional growth charts do not reflect the growth rate of very low birth weight infants. PLoS One. 2019;14(5):e0216048. Published 2019 May 7. doi:10.1371/journal.pone.0216048.