Introduction to the Symposium on Nutrition of the Preterm Infant

It has been nearly a decade since the publication of *Nutrition of the Preterm Infant, Second Edition*.[1] Numerous changes in neonatal care have occurred in the interim, and the need to refine nutritional care of the preterm infant is apparent. The science base indicates gaps in our knowledge of appropriate nutritional support and the need to establish new recommendations have evolved. Thus, we now have a better understanding about the requirements for specific nutrients and the need to address immaturity of host defenses, nutrient metabolism, and tissue repair mechanisms in preterm infants. Increasing numbers of infants survive birth and beyond at ever-lower gestational ages. At the same time, a broader range of the critical needs of the late preterm infant has become increasingly apparent. The nutritional requirements of very premature and late preterm infants differ from those of other preterm infants. In some geographic regions up to one-third of infants are classified as small for gestational age (SGA). The nutritional needs of this population also differ from those of appropriately sized preterm infants. Finally, as the world becomes smaller, there is a need to address health issues for all infants, and particularly preterm infants, in a more universal and global manner.

This Supplement reports the deliberations and proceedings of the Global Neonatal Consensus Symposium, Feeding the Preterm Infant, held in Chicago, Illinois, on October 13-15, 2010, which provided robust interactions among international academic neonatal nutritional experts in reviewing and updating the scientific literature concerning the needs of preterm infants. We identified 30 experts to participate in this task. We established 4 areas of work: (1) updating nutrient recommendations (protein, micronutrients, and lipids); (2) reviewing new science about the immaturity of host defense for the preterm infant; (3) recognizing the unique nutritional needs of specific subpopulations of preterm infants (the micropreterm infant, the SGA infant, the late preterm infant, and the postdischarge infant); and (4) identifying the challenges that prevent us from translating our understanding of science to practical application.

Small teams were appointed to research each of these topics throughout the year, culminating in a 3-day interactive symposium where each team's work was reviewed and refined by the entire group at large. To focus this work, we defined: (1) micropreterm infant as one born at ≤27 weeks gestation and, commonly, <800 g at birth; (2) SGA infant as one born at ≥34 weeks gestation and weighing less than the third percentile; (3) late preterm infant as one born at 34-38 weeks gestation; and (4) the postdischarge infant as any preterm infant who survived to be discharged home, typically at a corrected gestational age of ≥37 weeks.

SGA	Small for gestational age

The participating global experts developed consensus on nutritional recommendations and statements available in the current literature and identified a series of gaps in our knowledge. They highlighted the multiple challenges external to the science that limit our capacity to translate science into practical application. They also recognized a series of issues that apply to all patient groups. These issues were highlighted separately and include the use of breast milk, identifying appropriate growth curves, developing methodology to recommend nutrient intake, and a reconsideration of the importance of vitamin A and vitamin D for immature infants. What emerged among the participants as they progressed through the deliberations was a sense of global commitment to this altruistic effort. We anticipate the resulting synergy will help shape a global consensus on neonatal nutrition practices in the future.

Author Disclosures

Ricardo Uauy, MD, PhD, chaired the Symposium on Nutrition of the Preterm Infant. Mead Johnson Nutrition paid his travel expenses. He also received an honorarium to compensate his time for contributing to, organizing, and chairing the meeting and for his contribution to the final editing of the Supplement. Carol Lynn Berseth, MD, is the Medical Director for Global Innovation at Mead Johnson Nutrition. She organized and facilitated the Symposium on Nutrition of the Preterm Infant. R.U. wrote the first draft of this manuscript. ■

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Please see the Author Disclosures at the end of this article.

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