

Media Release

Individual fortification further improves the value of breast milk for premature babies

Preterm birth results in babies missing out on vital growth and development that would otherwise occur *in utero* towards the end of pregnancy. Breast milk is considered the most appropriate nutrition for very immature preterm infants despite the fact that its default composition is geared towards full term infants. Research has shown that individualised and targeted fortification can ensure that a preterm's full nutritional needs can be met, giving the baby the best start possible.

Preterm infants have significantly higher growth rates compared to term infants, resulting in increased nutritional needs. A preterm mother's milk is irreplaceable in terms of the active and protective components it provides. However research has shown that it does not always fully meet the nutritional requirements of the rapidly developing preterm baby.

The practice of fortifying human milk has been utilised for many years now, but finding the balance is a delicate process on many different levels. On the one hand, a mother must not get the feeling that her milk is not good enough for her own baby. On the other hand, research has shown that breast milk varies greatly in composition from mother to mother resulting in inadequacies in preterm infant growth. This variability must be accounted for when it comes to optimizing infant outcomes.

The key issue is that commercial fortifiers, however, assume an average nutrient content of breast milk. Thus, if fortification is applied based on a calculated standard composition of breast milk, a significant percentage of preterm infants will be at risk of not receiving the adequate nutrition they require. This can result in postnatal growth retardation, comparable to the effects of intrauterine retardation due to placental insufficiency. This is far from trivial:

- Only 75% of preterm infants on standard fortified breast milk receive sufficient nutrients¹ with
- Up to 58% of preterm infants experiencing postnatal growth restriction.²

New research has shown the promising results of individualised and targeted fortification. It has the potential to revolutionise preterm infant care, optimising a baby's growth and development through tailored diets. The technique incorporates precise and fast measurement of breast milk composition, taking all three major nutrient groups into consideration (carbohydrates, proteins, fats) rather than simply protein. Although such an approach may initially increase workload in a NICU unit, the results of bedside milk sampling twice a week should outweigh the costs, leading to significantly better outcomes for preterm infants.

At Medela's 10th Breastfeeding and Lactations Symposium in Warsaw (17-18 April 2015), Prof Christoph Fusch will outline this key issue and explain the research behind his proposed tailored solution to this significant dilemma. In addition, the value of human milk in

¹ <http://humanmilkscience.org/conferences/2014/individual-fortification-implications-optimal-growth>

² Henriksen C, et al. Br J Nutr. 2009;102:1179-86.

the NICU will be discussed intensively by Professors Matthias Keller (Germany), Diane L. Spatz (USA), Shoo Lee (Canada) and Dr Maria Wilinska (Poland). Their common focus throughout their presentations will be a need for the ongoing revision of current global care practices in NICUs to allow the use of human milk for all premature babies.

Baar, Switzerland, 14. April 2015

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More information under www.medela-symposium.com

Registration for the media (press conference, webcast, attendance during the symposium) under <http://www.medela.com/IW/en/breastfeeding/for-professionals/congress2015/media/media-registration.html>

About Medela:

Founded in 1961 by Olle Larsson and headquartered in Switzerland, Medela today is led by his son Michael Larsson. Medela concentrates on two business units: "Breastfeeding", which is leading in the development and production of breastfeeding products, and "Healthcare", which engineers and manufactures highly innovative medical vacuum technology solutions. Medela conducts basic research in partnership with leading scientists, medical professionals and universities, and uses the research results in the development of its products. Medela has 18 subsidiaries in Europe, North America and Asia, and together with independent partners distributes its products in more than 90 countries. The company employs over 1,500 staff worldwide, 330 of whom are located in the Canton of Zug, Switzerland. www.medela.com