Nucleotides (naturally present in breastmilk) play key roles in the normal functioning of our body. They are also the building blocks of genetic material.

For healthy adults, nucleotides are not considered essential nutrients. That is, they need not be obtained from the diet as the body can readily make nucleotides. However, increasing evidence suggests that provision of nucleotides in the diet may be important during infancy, when nucleotides are needed in increased amounts for growth and development. The developing gastrointestinal and immune systems may particularly benefit from the provision of nucleotides in the diet. For infants, breastmilk is the main source of nucleotides. The nucleotides content of breastmilk is significantly higher than most cow milk based infant formulas.

Dietary nucleotides are also reported to enhance the gastrointestinal and immune systems of formula fed infants. Infants who are fed a formula with nucleotides added have less diarrhea, and higher levels of antibodies to Hib and diphtheria vaccinations compared with those fed a formula without added nucleotides. Term infants who are small for their gestational age are also reported to grow better if they are fed a nucleotides containing formula. In summary, these studies suggest that nucleotides in breastmilk may contribute to the superior clinical performance of the breast fed infant.

Studies have shown that animals fed a diet with nucleotides have enhanced gastrointestinal growth and improved recovery following bowel injury compared with those fed a diet without nucleotides. Animals fed a diet containing

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Debates in Perinatology
1-3 May 1998

Dr Cheong Pak Yean, President of Singapore Medical Association on Labour Day 1998 opened the Biennial Scientific Meeting of the Perinatal Society of Singapore. Entitled "Debates in Perinatology", this interesting scientific meeting had participation from doctors, nurses and experts from the Asia Oceania region and lasted 3 days.

The meeting comprise 4 plenary sessions, 9 symposiums including a nursing symposium and an ultrasound workshop. The topics selected for the main scientific meeting were deliberately chosen to address current controversies in the fairly new medical discipline of perinatal medicine. Topics include Retinopathy of Prematurity - Is it preventable? Antibiotic prophylaxis - Do we need it? Can we predict preterm labour and Breech vaginal delivery or Cesarean Section. Other topics covered include developmental care of the newborn, use of indomethacin, magnesium sulphate, nitric oxide, low birth weight, jaundice, immunoglobulins and gestational diabetes.

The first plenary dealt with an important topic - Cost Effectiveness in Perinatal Medicine. Rapid advances in medical knowledge and technology together with spiralling health costs make cost effectiveness the key consideration for health care policy and providers today. Dr Victor Yu, an eminent neonatologist emphasized that neonatal intensive care for tiny babies can be cost effective. Although surfactant and assisted ventilation are expensive, the resulting improvement in outcome was responsible for a reduction in their cost per additional life year gained. He encouraged hospitals to establish a prospective and standardised quality assurance programme for perinatal care and long term outcome as well as to collaborate in a medical audit which would produce meaningful population based data on the cost effectiveness of their perinatal and neonatal services.

The necessity of evidence based medicine was also addressed. Participants felt that although evidence based medicine is necessary, one must be aware of the pitfalls which include the failure to integrate new clinical evidence with one's clinical skills.

It was a meeting also of old friends, as Singaporeans shared with the foreign delegates (from countries including Malaysia, Taiwan, Philippines, Hongkong and Australia) and speakers not only scientific and medical experience in perinatal medicine but also our way of life in Singapore.

Dr Tan Kok Hian
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AProf. Ho Nai Kiong (extreme right)
Developmental Care of the Newborn:

DOES IT MAKE A DIFFERENCE?

Developmental care in the Intensive Care Nursery has now become an integral part of providing nursing care to newborns. There are, however, controversial issues in the literature on what are developmentally appropriate care interventions for such newborns. And if developmental care is implemented then does it make a difference to these newborns?

Two speakers debated on the various developmental care interventions and their effects on newborns during the Nursing Symposium at the Biennial Scientific Meeting 1998.

Dr Carmelita Belmonte-Cuyugan from the Makati Medical Centre, Manila, Philippines presented on "Individualised Developmental Care and Other Nursing Interventions in the NICU" focusing on light and noise management, coordination of medical and nursing interventions to minimise sleep disruptions, positioning of the infant and promoting opportunities for parenting. She suggested that these relatively simple and inexpensive innovation in neonatal care were effective in reducing infant morbidity and length of stay in the hospital, as well as improving neurodevelopmental follow up.

While a number of Intensive Care Nurseries have adopted individualized developmental care, some have questioned the efficacy of this method. She recommended that further research is needed to validate the results of method as well as other nursing interventions before widespread implementation.

The next speaker was Ms Julie Tan Saw Geak from the College of Nursing, Hospital Sultanah Aminah, Johor Bahru Malaysia. Her presentation on "Developmental Care of The Newborn: Visiting Old and New Interventions" highlighted some of the developmental care concepts on infants in the daily nursing care of newborns. They include non-nutritive sucking on a pacifier, touch therapy and also massage and beding of twins / triplets together.

Ms Julie emphasised that cost effectiveness and benefits are important considerations in any interventions. She further elaborated the impact of the above mentioned developmental modalities on the newborn, demonstrating cost saving effects as a result of earlier discharge of the neonate and lower rates of complications.

Mary Fong
Nursing Officer
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Perinatal Society
Ultrasound Workshop
3 May 1998

This was a unique workshop in that it was not only the first Ultrasound Workshop that the Perinatal Society has organized, but also the first one where there were parallel sessions of neonatal and obstetrical ultrasound topics. The faculty was chosen from both local and foreign experts and the response from members and non-members was very encouraging. The general feedback was that both sides would have liked to sit in on lectures from the other to learn and maximize their learning experience.

Prof Calvin Hobel gave valuable pointers in "When, Who and Why of ultrasound in obstetrics practise."

A comprehensive range of fetal anomalies were reviewed by Prof Raman and Prof Y C Wong for the instant experience of the audience. This helps to familiarize the student more quickly with possible differential diagnoses on seeing the anomalies rather than just reading about them. The hands-on demonstration of how a screening scan should be performed was already greeted with enthusiasm.

On the neonatal side, the highlights were the extensive coverage of the congenital heart defects reviewed by Prof William Yip and Dr Chan Kit Yee as well as the assessment of pediatric abdominal masses by Dr Anne Tan. The different backgrounds of all the faculty point to that diversity of persons involved in the care of our fetus and neonates. The workshop has once again reinforced that these different subspecialists should work together as a combined team, such as in a Birth Defect Clinic, to further improve outcome of all affected infants.

Dr Ann Tan
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Executive Committee 1998 / 1999

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As a member of the Perinatal Society of Singapore ($10 Subscription per annum), you will receive the following benefits:

- 3 Newsletters per year with interesting articles relevant to you and your baby by medical professionals.
- You will be among the first to be invited to Public Forums organized by the Society.

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