

## New data about folic acid supplementation

Folic acid supplementation during pregnancy and the prevention of neural tube defects is undoubtedly one of the great success stories of the past two decades. However, as we have learned on numerous occasions, there can be unintended adverse consequences of nutritional and drug interventions. Over the past few years, there has been increasing interest in the role of methylation and its potential impact on gene expression and disease phenotypes. In a report from Norway, a country in which food is not fortified with folic acid but is recommended during pregnancy, Haberg and colleagues describe the impact folic supplement during pregnancy has on early childhood respiratory health. They cite both *invitro* and animal data as the basis for their hypothesis that supplementation could increase the risk of lower respiratory tract infection because of the impact of folic acid on methylation and subsequent T-cell function. Over 30 000 women were included in the study (ultimately 100 000 pregnant women will be enrolled), with nutritional information collected at the 17<sup>th</sup> and 30<sup>th</sup> week of pregnancy, and information about their offspring at 6 and 18 months. They quantified folic acid supplementation throughout pregnancy. Their findings – folic acid supplementation early in pregnancy was associated with a slight, but significant, increase risk of wheeze and lower respiratory tract infections during the first 18 months of life. I suspect that this report will raise concerns among pregnant women about the need for folic acid supplementation during pregnancy. This report should absolutely be seen as preliminary, and will have to be corroborated by other studies. Although the authors controlled for covariates residual confounding is possible. Given the medical, psychological and developmental morbidity of neural tube defects, any possible negative consequence of folic acid supplementation would have to be substantial to negate the benefit of a reduction in neural tube defects. Ultimately, a large randomized clinical trial may be necessary to assess the role of folic acid supplementation

during pregnancy on child health outcomes. Such a trial would have to account for the dose as well as the timing of folic acid supplementation. *See page 180*

## Does ritual circumcision increase the risk of UTI?

Some groups and individuals object to circumcision. Nevertheless, a number of religions continue to practice circumcision. In a report from Israel, Prais *et al* assessed whether traditional circumcision is a risk factor for male infants hospitalized for UTIs under the age of 2 months. They found that circumcision performed by a religious authority was associated with a two-fold increase in the risk of UTI. They suggest that the main difference between the traditional and medical method of circumcision is the amount of time that the penile shaft is wrapped and the homeostasis technique employed. *See page 191*

## The importance of audits

We often debate whether audits are important to publish, particularly those that come from a single institution. In general, audits that reflect common problems and in which there is good evidence about what represents good care will be reviewed. In part led by the leadership of Institute for Healthcare Improvement and BMJ, quality improvement, which begins with assessment, is now recognized as a critical aspect of a modern healthcare system. In this issue, Shield and colleagues, using data from the British Paediatric Surveillance Unit, present data on the follow-up of children with Type 2 diabetes. Over the course of 1 year, 76 children were identified, producing a confirmed incidence of Type 2 diabetes of .6/100,000/year – much less than originally predicted given the obesity epidemic. They found that weight loss over the course of 1 year was less than desired, HbA1c was often not collected at the time of diagnosis, 38% of children had levels greater than 8% at follow-up, half the children were started on metformin, and about a quarter of the children were not screened for nephropathy or retinopathy. They suggest that these data indicate “that type 2 diabetes care for UK children does not currently offer a

fully developed and effective package.” Although I agree with this statement, as we are all aware achieving lifestyle modification (and weight loss) is very difficult, and knowing what the correct HbA1c level should be remains uncertain. Quality improvement efforts themselves can be of high quality only if we are certain about appropriate outcomes to measure. *See page 206*

## Atopic dermatitis and food allergy

Allergic disease is on the rise. Kvenshagen *et al*, report the relationship between atopic dermatitis and food allergy in a group of 193 premature and 416 term children at 2 years of age. The 18.6% incidence of atopic dermatitis is consistent with other studies, and was similar in both groups of children. About 1 in 6 infants in both groups with atopic dermatitis had adverse reactions to food. Infants with IgE mediated food allergy tended to have worse atopic dermatitis. From a clinical standpoint, infants with atopic dermatitis who have poorly controlled disease probably deserve some type of allergy testing. *See page 202*

## This month in *F&N*

- ▶ Ray and Ward Platt report that that the excess mortality among twins less than 30 weeks gestational age appears to be attributable to those less than 25 weeks gestational age – the technological advances in the care of newborns 26-30 weeks gestational age is extraordinary. *See page F140*
- ▶ ECMO represents quaternary care. Karimova and colleagues assess UK care for 718 neonates who received ECMO between 1993 and 2005. The majority received ECMO because of meconium aspiration syndrome or congenital diaphragmatic hernia. Their conclusion – the survival rate of 80% is similar to results from other countries. *See page F129*
- ▶ The rates of NEC vary widely between NICUs. Henderson *et al*, using a case-control methodology, found that that modifiable factors associated with NEC included formula-feeding, the duration of trophic feeding and rate of advancement of feed volumes. *See page F120*