

The non-specific effects of vaccines

Paul Fine and David Elliman comment on a leading article by Frank Shann which focuses on the non-specific effects of vaccines. No one disputes that immunisations are among the most important advances in modern medicine. Their impact on morbidity and mortality have been well described and are undisputed. Older physicians remember polio wards, and outbreaks of measles and mumps. Physicians in their 40s and 50s recall numerous cases of bacterial meningitis caused by *Haemophilus Influenzae type b* and *Streptococcus pneumoniae*. However, Shann addresses a different, and very complex and controversial topic, the non-specific effects of vaccines, including the non-specific effects of BCG. The impact of BCG vaccine on diseases other than tuberculosis are likely to be very different in Guinea Bissau, where they have been well studied, in contrast to other countries, where the infectious disease environment is entirely different. **See pages 661 and 662**

Medical errors at home

Evans and colleagues extend our understanding of medical errors to the home setting. They questioned and observed 40 families whose children were receiving enteral feeds at home. They found a long list of problems, including: poor hygiene, inaccurate mixing of ingredients, inadequate tube-flushing and inconsistent checking of tube placement. They do not report whether these “medical-errors,” had consequences for the children. This report is similar to work of one of my former colleagues, Kathleen Walsh, MD, who is examining medical errors in the homes of parents dispensing drugs for cancer. Again, not surprisingly, she has found many problems, but has not yet described actual medical consequences of the errors. Should we create elaborate and

potentially expensive interventions based upon these data? From my perspective that depends on the intervention. Emphasising with parents that they should wash their hands before and after they prepare drugs for administration, or that they should carefully check the tube for placement, makes inherent sense. However, before we intervene more aggressively, knowing the impact of these “medical errors” on patient outcomes is important. **See page 668**

Learning from other disciplines

Many movers and shakers in the quality revolution have criticised medicine for being slow adopters of safety initiatives that have been in place for decades in numerous industries. Checklists and simulation, popular in the airline industry, are often cited as important examples of quality improvement processes that medicine should adopt. Although I tend to agree that we have much to learn from other industries, numerous experts have pointed out that the number of decisions made in healthcare each day dwarfs by millions the number of decisions made in the airline industry. That said, I recently read an article in the May 17, 2010 issue of *The New Yorker* that focused on Esther Duflo an economist at Massachusetts Institute of Technology and co-founder of the Abdul Latif Jameel Poverty Action Lab. She and her colleagues are referred to as the “randomistas.” They have adopted randomised clinical trials, introduced in medicine more than five decades ago, and are using the methodology to study various economic interventions, particularly in low-income countries. The article suggests that she and her colleagues are not that popular among mainstream economists. It is quite clear that disparate disciplines have much to learn from one another. How to break down silos between and within specific disciplines remains a struggle. **See page 717**

This month in *F&N*

- ▶ The use of MRI in neonates is increasing. Although MRI maybe superior to cranial ultrasound in predicting neurodevelopmental outcome at age 2 years, it is not certain whether the results have clinical implications. Horsch and colleagues from Sweden compared cranial ultrasound and MRI at term age in extremely preterm infants and found substantial agreement in the detection of severe white matter or grey matter abnormalities.
- ▶ There are increasing data that high concentrations of oxygen during neonatal resuscitation maybe harmful. Although there is no universally agreed upon “safe” oxygen level, knowing what we deliver using resuscitation bags is important. Thio and colleagues from Australia report the results of delivered oxygen concentration using the Laerdal and Ambu infant resuscitation self-inflating bags at different oxygen flow and ventilation rates, and various ranges of peek inspiratory pressure.
- ▶ The American College of Obstetrics and Gynecology recently released new less restrictive guidelines regarding vaginal birth after cesarean (VBAC) delivery. This substantial reemphasis on VBAC follows reports that 35% of U.S. women now give birth by caesarian, and without some change in the approach to infant delivery this likely will grow to 40%. Bracno de Almeida reports that infants delivered by non-urgent caesarean are significantly more likely to require ventilation at birth – yet another reason to encourage vaginal deliveries.
- ▶ Redshaw *et al* report the status of family centred care in 153 (72% response rate) neonatal units in the UK. Not surprisingly they found wide variation in policy and practice. Unlike many healthcare systems, the NHS does have the capacity to decide what is appropriate family centred practice and policy, and ensure that it occurs.