

Atoms

Howard Bauchner, Editor in Chief

ENSURING THE PATENCY IN CENTRAL VENOUS LINES USED FOR HAEMODIALYSIS

A recent internal review of the most published articles in *BMJ* found that randomised clinical trials (RCTs) and systematic reviews are, in general, the most cited papers. This does not surprise me. RCTs and systematic reviews are the lynch pin of evidence-based medicine and are known to influence practice. In this issue there is an important RCT from Gittins and colleagues from Newcastle upon Tyne. In a double-blind, cross-over experiment, they found that alteplase was superior to heparin in preventing clot formation in central haemodialysis lines. Should this trial lead to an immediate change in practice? Perhaps! Clot formation was more common and larger with heparin. Unfortunately, the sample size was quite small (9 children dialysed +20 times) and serious adverse events may have been missed. Nevertheless, these authors are to be congratulated, rather than employing a pre-post design they used a RCT—a far superior approach to answering the question.

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YET MORE ON BREAST FEEDING

We have tried to use our perspectives to frame the larger clinical or public health implications of our research reports. Ong and Forouhi comment on the work by Akobeng and Heller, which describes a new statistical method to assess the population impact of an intervention—in this case breast feeding—on the rates of disease. The “population impact number of eliminating a risk factor over a time period” is the population attributable risk multiplied by the total number of cases in a population; stated more simply, “the number of cases of disease that might be avoided by eliminating the risk factor.” In this case Akobeng and Heller suggest that if 100% of infants born in Wales and England were exclusively breast fed then there would be

33 100 less cases of asthma, 2655 of coeliac disease and 13 639 of obesity. Are these numbers accurate? Ong and Forouhi list the many assumptions that are necessary to compute these figures. Since few randomised trials have assessed the impact of breast feeding on rates of disease, residual confounding remains a significant problem in the observational studies. In addition, the estimates cited above are based upon 100% exclusive breast feeding for the first few months of age, although the authors do provide estimates for various rates of exclusive breast feeding.

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A DECADE OF VARIATION AND QUALITY

Variation, quality, evidence based medicine (EBM), and health information technology have dominated the first decade of the 21st century. They are inextricably linked—variation suggests a lack of quality, EBM informs quality, and health information technology can improve quality. Phillips and colleagues describe wide variation in the management strategies in the treatment of febrile neutropenia in children with cancer. The definition of fever and neutropenia, and choice of antibiotics varied significantly among the 21 United Kingdom Children’s Cancer Study Groups. Is the continuing description of variation in healthcare important? I believe if the medical problem is associated with hospitalisation and cost, and there is evidence to guide decision making, then delineating variation is helpful. However, I recall quite clearly a meeting I attended over 20 years ago when a very senior paediatrician in the US enquired after a trainee had delineated variation and an intervention to improve quality, if the trainee’s own institution had made changes.

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BRITISH PAEDIATRICIANS AND CHILD PROTECTION

Two articles in the April issue of *Pediatrics* discuss the issue of child protection in Britain.^{1 2} Carole Jenny, MD, summarises the Meadow and Southall affairs, the Geddes theory that subdural and retinal haemorrhages could occur after an apneic or choking episode, and the attack on child abuse paediatricians by the press. She points out that in the US there is “mandated reporting” laws that require all physicians to report potential child abuse and/or neglect to the appropriate authorities, and more recently that the American Board of Pediatrics approved child abuse as a newly recognised subspecialty with formal training followed by examination. In a related piece Catherine Williams, LLB, from the Department of Law at Sheffield, describes the increase in the number of physicians subject to formal complaint because of their child protection work (<20 cases in 1995 to >100 cases in 2003) and that the views of the General Medical Council are at odds with Article 10 of the European Convention for the Protection of Human Rights and Fundamental Freedoms.

THIS MONTH IN EDUCATION & PRACTICE

- A guideline review focusing on the NICE obesity report. See page 92
- Illuminations – malrotation and volvulus. See page 87
- An update on drug therapy for asthma. See page 82
- Best practice – scabies. See page 65
- Two problem solving cases. See pages 70 and 76

REFERENCES

- 1 Jenny C. The intimidation of British Pediatricians. *Pediatrics* 2007;119:797–9.
- 2 Williams C. United Kingdom General Medical Council Fails Child Protection. *Pediatrics* 2007;119:800–2.