Archives this month

August new broom

A bimonthly series starts in this month's *ADC* which, for an acronymous reason none of us can now recall, is entitled Archimedes (page 252). The aim is that in the time it takes to run a bath, readers are provided with the best evidence available to solve a clinical question. Bob Phillips, a paediatric specialist registrar (senior resident) edits the section, and we hope others in training will offer contributions to the series.

And now for some real *Archives*

It is not often that we receive a paper whose database represents individuals who stopped being paediatric patients more than 60 years ago (page 189). The question addressed is the controversial one of whether fetal undernutrition affects cognitive function, regardless of socioeconomic status. The authors have birthweight, gestational age and some sociodemographic data on nearly 1000 babies born in one Scottish hospital in 1921. They also have information on cognitive testing of nearly every Scottish child who was aged 11 in 1932. Comparing these groups have led the authors to conclude that birth weight explains 3.8% of the variance in intelligence quotient at age 11 and social class accounts for 6.6%. They conclude that the ability to show such relationships at different historical periods adds to the robustness of Barker's "programming" hypothesis and promise further studies relating these childhood data to health and cognition in old age. Geriatric journals please copy.

Breast milk adds IQ points

Also this month we publish the work of a Scandinavian group which has looked at another variable possibly affecting cognitive development, namely breast feeding (page 183). The problems of confounding are obvious and what the authors have to offer in diminishing their effects is a study which took place in a relatively homogeneous socioeconomic society in which 100% of mothers breast feed, at least to begin with.

The questions they ask are whether there are differences in development at ages 13 months and 5 years between children breast fed for less than 3 months or more than 6 months. They find no difference in motor development but a definite difference in cognition, which they believe cannot be attributed to extraneous factors such as maternal age, education, and intelligence.

Significance of a non-blanching rash

I guarantee that I could walk into any acute paediatric ward and find a child with a mild fever and a few petechial spots. Public and professional anxiety over meningococcal disease (MD) makes it difficult not to treat such children with intravenous antibiotics even though the treating physician knows it is frequently unnecessary. What we need is information on the predictive value of petechiae. This month we publish an observational study from Nottingham, England detailing 219 children seen in an accident and emergency department with a non-blanching rash not due to a haematological disorder or Henoch-Schonlein purpura (page 218). Twenty four turned out to have MD and the paper deals with the differences between them and the remaining 194. Unsurprisingly the former were more likely to be ill (but one fifth looked well), more likely to have purpura (but 17% had petechiae only) and more likely to have a prolonged capillary refill time (but it was prolonged in 15% of the control group). The best discriminator was that no child with MD had a rash distributed solely to the distribution of the superior vena cava. The authors' findings on total white count is contrary to those recently published in *ADC* by Brogan and Raffles[1] and did not distinguish between those with and those without MD. A normal C reactive protein had a high negative predictive value, but the authors warn that this will be helpful only if the investigation result can be obtained rapidly, including outside normal working hours. By selectively using the variables detailed, the authors state they could have avoided about one quarter of their admissions.

1 Brogan P, Raffles A. The management of fever and petechiae: making sense of rash decisions. *Arch Dis Child* 2000;**83**:506–7.

Another world

The niceties of just who to admit is thrown into bold relief by two papers from Malawi (pages 208 and 214). Two years ago we published details of a proposed method for emergency triage in developing countries.[2] Now, one of the co-authors and a colleague present the first results of applying the tool. Nurses and medical assessors mostly agreed, with just four of 2281 patients upgraded by the latter to a need for emergency treatment and the same number downgraded to urgent assessment. More worryingly, 59 were upgraded from "can wait in the queue" to a need for urgent assessment but, overall, nurses were reliable in selecting those needing immediate admission. Unsurprisingly, subjective signs such as pallor and lethargy were less discriminatory than more objective measurements such as respiratory rate. In their companion paper the authors describe what happened to the admitted patients. It makes humbling reading, with potentially lifesaving care delivery being frequently limited by staff shortage and lack of blood for transfusion.

2 Gove S, Tamburlini G, Molyneux E, *et al*. The development and technical basis of simplified guidelines for emergency triage, assessment, and treatment in developing countries. *Arch Dis Child* 1999;**81**:473–7.

Another world

MacFaul and Werneke (page 203) looked at nationally collected statistics for admissions to English paediatric wards. It will surprise nobody used to working in Britain's NHS that the raw data sometimes conceal more than they reveal. "Well babies" inflate the figures and sometimes contaminate the numbers receiving intensive care. Neonatal and paediatric cases may be conflated leading to an inaccurately high total length of stay for the latter. Does this matter? It certainly does if managers base their decisions on such "dirty" statistics. The authors recommend separate identification of those who occupy cubicles as opposed to beds in an open bay or ward and more attention to seasonal variation.

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