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Hepatitis B vaccination in African primary health care

In sub-Saharan Africa, where hepatitis B virus is endemic, the supplementation of routine expanded vaccination programmes with hepatitis B vaccine has been called for by the World Health Organisation and other organisations. The study by Schoub *et al* reported on p 313 shows that in rural Africa this process is fraught with difficulties. Although immunisation was as effective in children who received the first dose of vaccine up to 3 months after birth as in those immunised at birth, coverage dropped to 53% for the second dose and 39% for the third dose of the vaccine. This experience highlights the need for wide flexibility of dosage schedules and the difficulty of ensuring maintenance of satisfactory coverage for all doses. Schoub *et al* also identify the high price of the vaccine as a factor limiting its widespread use. To integrate effectively hepatitis B vaccine into the expanded programme on immunisation in Third World settings it could be added to diphtheria, tetanus, and pertussis as a tetravalent vaccine.

Value for money in treating acute myeloblastic leukaemia

In future, trials of new drugs may have to include analyses of cost effectiveness as well as clinical efficacy. In the mean time the cost effectiveness of new products can be assessed retrospectively. A new anthracycline, idarubicin, has been shown to be effective in inducing remission in acute myeloblastic leukaemia but costs two to three times as much as daunorubicin on a course for course basis. On p 323 Lobo *et al*, having determined costs prospectively, use a retrospective analysis of previous studies to show that idarubicin reduces the costs of hospitalisation and supportive care and is thus cost effective. This method is sufficiently flexible to allow assessment of cost effectiveness in different environments, where factors such as labour costs may vary widely.

Clinical trials of homoeopathy

Many doctors do not believe that homoeopathy is an efficacious treatment as it is highly implausible that infinitesimally diluted substances retain their biological effects. It is also often said that homoeopathy has not been evaluated with modern methods—that is, controlled trials. The first argument may be true, the second is not. Kleijnen *et al* searched the literature and found 96 reports containing 107 controlled trials of homoeopathy (p 316). Most trials turned out to be of very low quality, but there were many exceptions. The results show the same trend regardless of the quality of the trial or the variety of homoeopathy used. Overall, of the 105 trials with interpretable results, 81 showed positive results of homoeopathic treatment. A complicating factor in such reviews, especially of controversial subjects such as homoeopathy, is publication bias. If the results of Kleijnen *et al* do not reflect the true state of affairs, publication bias must be considered as a great problem in evaluations of homoeopathy. In any event, there is a legitimate case for further evaluation of homoeopathy, but only by means of trials with a sound methodology.

Violence in general practice

Although there has been substantial media interest in violence towards health service staff, violence towards general practitioners is a largely unexplored subject. On p 329 Hobbs reports a study on the views of 1093 general practitioners concerning violence towards themselves during the course of their work. Although the response rate to his questionnaire was low (47%), the results in a still large sample are convincing enough for conclusions to be drawn. Of the 1093 practitioners, 687 (63%) had experienced aggression, and 191 of these had experienced abuse at least once a month. The mean number of incidents was 2·42 in 12 months, and 14% of the general practitioners who experienced abuse thought that violence was increasing. Most of the incidents (91%) were of verbal abuse or threats with no direct physical act. Although many incidents of aggression (57%) took place in the surgery, a high proportion (63%) of the incidents involving assault or injury occurred during home visits. Surprisingly, relatives were the aggressors in as many as 38% of cases. The commonest precipitants of aggression were anxiety (26% of cases) and a long wait to see the doctor (11%). The author suggests some preventive measures against such behaviour.

Getting the sample size right

Estimating the sample size required has always been a troublesome but essential part of planning an investigation. Most researchers rely on published sample size tables or, if they can find one, they consult a statistician. Traditionally sample size calculations were based on a hypothesis testing approach to data analysis and necessitated specifying a level of power to detect a clinically important effect. Recently, however, in line with the increased emphasis on confidence intervals in data analysis, new estimation methods have been proposed, which seem at first glance to be very attractive and typically result in smaller sample sizes. Is it possible that the old methods were too stringent? On p 333 Daly, in a non-mathematical review of the two approaches, argues strongly that these new confidence interval based methods produce inadequate sample sizes for comparative studies. Instead he proposes a slight rewording of the traditional sample size specifications to fit into a confidence interval framework and urges us not to throw out any of our old sample size tables.