

the progestogen component and reactive only to oestrogen, the unopposed oestrogenic stimulus on such foci subsequently leading to the development of endometrial carcinoma.⁹

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Laparoscopy explosion hazards with nitrous oxide

SIR,—We apologise for the delay in replying to the letter of Drs G B Drummond and D B Scott (6 March, p 586), which was caused by illness.

We find ourselves in agreement with Mr P C Steptoe (3 April, p 833) concerning the inadequacies of the measurements made by Drs Drummond and Scott and especially concerning the justification of their conclusions. We regret the lack of experimental detail about the sampling, analysis, and calibration procedures used, which prevents any assessment being made of the validity of their work.

That hydrogen, in a standard mixture with methane and nitrogen, could be stored in a greased glass syringe closed with a polyethylene tap for 10 days, or even two days, without any significant loss was very surprising to us because of the well-documented high diffusion coefficients in most materials, including lubricants and polymers. In fact, we would have expected no loss to have occurred during storage only if the mixture had been stored over mercury in a thick-walled glass container. During recent attempts to analyse intestinal gas we found that the results were quite unreliable unless the samples were analysed within four hours, using a scanning mass spectrometer. Without the experimental figures we are unconvinced by the claims of Drs Drummond and Scott about hydrogen losses and consequently sceptical about their values for hydrogen concentration in their samples.

However, we must agree with Mr Steptoe that samples from 12 laparoscopies is a small number and especially that nitrous oxide usage is likely to be dangerous when bowel puncture occurs (at least 2% of cases according to Mr Steptoe) using high-frequency electric diathermy. Similar criticisms about the numbers of cases reported by Drs S Khunda and K Y Ghanima (8 May, p 1147) can be made (28 cases using diathermy).

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The community physician of the future

SIR,—Your editorial description (24 April, p 976) of the training of the community physician of the future carries the extraordinary assumption that his or her postgraduate education is available only in England. No mention is made of what goes on in the four Scottish medical schools, which are playing, as they have done for 50 years or more, a very considerable role in the new venture of community medicine no less than in the older discipline of public health.

Since the *BMJ* is British and since Scotland, thank goodness, is still part of Britain I had hoped that someone closer to London than I would by this time have corrected the uncharacteristic discourtesy and inaccuracy in your editorial columns. In writing now, however, I can testify to the pleasure with which we welcome in our training programmes many applicants from England as well as from Commonwealth and other countries and express the hope that they will not assume from your article that we are no longer in business.

May I also while writing suggest that you are asking too much when you urge the community physician to acquire an MRCP or MRCGP as well as an MFCM? What is needed—and the need is widely felt—is a common primary as a test of basic knowledge, including epidemiology and biometrics, before admission to membership of any of the colleges. In this way medicine might begin to reintegrate itself, in which case the unfortunate lapse in your columns will serve such a useful purpose that no apology is needed.

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Failure of phenobarbitone to prevent febrile convulsions

SIR,—The article by Dr J Z Heckmatt and others (6 March, p 559) contains, we believe, both misleading conclusions and faulty reasoning.

The recurrence rate of febrile convulsions was 8.2% in the group treated with continuous phenobarbitone and 19.2% in the control group, with an observation period of six months. A reduction in recurrence rate to 43% of that in the controls appears clinically important but is not statistically significant when one uses a two-tail test at the 5% level. When one sees what may be a clinically important effect which does not attain statistical significance it would seem inappropriate to declare this as proof of no treatment effect. If the same rates of recurrence were to prevail the results would have been declared significant with only 26 additional subjects in each group. With the observed rates the results would also have been significant if all 88 subjects in the phenobarbitone-treated group had satisfactorily completed the trial. Thus the authors were not far from reaching a conclusion opposite to that claimed in the title of their paper. It is interesting to note that if their present data are tested with only one tail they are significant at the 5% level.

The authors argue that the recurrence of febrile convulsions in some children whose phenobarbitone levels are in the therapeutic range proves the ineffectiveness of this drug.

We disagree and think that this proves only that some children may not be protected against febrile seizure recurrences by levels of phenobarbitone ordinarily considered adequate but that many other children may be protected.

Finally, there are four recent studies,¹⁻⁴ including our own (which is randomised and prospective with a concurrent control group), which do show the effectiveness of daily phenobarbitone in the prevention of febrile seizure recurrences.

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*. We sent a copy of this letter to Dr Heckmatt and his colleagues, whose reply is printed below.—ED, *BMJ*.

SIR,—We are grateful for the opportunity to reply to Drs Wolf and Forsythe, but cannot accept that our paper was misleading either in title or conclusions.

After the publication by Faero *et al*¹ many authors, in particular Lennox-Buchthal,² wrote and lectured that phenobarbitone if given in sufficient dosage to keep a certain blood concentration (65 μ mol (15 mg)/l) would prevent febrile convulsions recurring. This would have been important for anxious parents in each succeeding fever because prevention was given its usual meaning: to preclude, to stop, keep or hinder effectually, to keep from coming to pass. In such a way prophylactic appendectomy prevents appendicitis in the mountaineer or polar explorer. In this sense we have shown that phenobarbitone at the recommended blood level does not prevent febrile convulsions. In fact Thorn³ found the same in her study: four of the recurrences were in children with phenobarbitone blood levels of above 65 μ mol (15 mg)/l at the time of the convulsion.

The suggestion that a statistically insignificant reduction in recurrence rate would become significant with increased numbers is dangerous on two grounds. The first is illustrated by an experiment in which there was an insignificant excess of heads after a series of coin tosses.⁴ The argument of Drs Wolf and Forsythe would have it that if the same rates of recurrence were to prevail a larger number of tosses would show that the coin was biased to fall down heads.

The second objection relates to the suggested inclusion for statistical purposes of those who did not satisfactorily complete the trial. Half of these (18% of those offered treatment) stopped the treatment because the family could not tolerate the side effects. In identical manner Thorn³ found that 21% had to discontinue phenobarbitone because of side effects.

If phenobarbitone does not prevent febrile convulsions but reduces the incidence (as Wallace⁵ and Thorn³ have suggested) then one would expect a kind of dose-response curve—the higher the blood level, the lower