

a very large anaesthetic hammer for a relatively small surgical nut. As pointed out in our Table, the length of time from the start of abdominal insufflation to deflation is less than 10 minutes on average. I understand that in some centres the operation takes rather longer and different problems then arise for the anaesthetist.

Laparoscopy we consider to be different from any other minor operation only in so far as it requires some abdominal relaxation (to allow an adequate amount of gas to be introduced into the abdomen before the trocar and cannula are inserted) and quiet respiration. The latter is of some importance as excessive movement of the intestines with respiration (which can also occur if controlled respiration is too violent) can be dangerous during the tubal diathermy. (I know of one case in which the bowel was burnt in this way). The main advantage of nitrous oxide over carbon dioxide is the elimination of excessive respiratory drive.

There should be no morbidity associated with anaesthesia for the procedure. Vomiting, as we said, is no commoner than with other minor gynaecological operations. The cardiac arrhythmias seen are innocuous, but can largely be eliminated again by using nitrous oxide for insufflation. The use of small doses of gallamine has very little effect on respiratory performance as judged by  $\text{PaCO}_2$  levels with and without the drug. Like Dr. T. Sayer (26 February, p. 566) we do not use halothane if termination of pregnancy is also being carried out.

Dr. Nanette Gordon and colleagues (4 March, p. 625) quote a case from the literature in whom the  $\text{PaO}_2$  during laparoscopy was 46 mm Hg, but do not mention that the same patient had a  $\text{PaO}_2$  of only 50 mm Hg before pneumoperitoneum.

I can reassure Mr. P. C. Steptoe and Dr. F. N. Campbell (4 March, p. 625) that we do use a pressure-limiting device, having been convinced by him personally of its necessity before introducing the operation into our practice. The intra-abdominal pressure (properly measured) seldom exceeds 15–20 cm of water.

After the very large number of cases performed in this hospital, I am still unable to understand Dr. J. E. Utting's description of our method as "entirely inappropriate" (26 February, p. 566). Have your correspondents ever considered the side effects of their methods? While I am sure that they are minimal in their hands, we have found that heavy premedication can cause delayed recovery and, if opiates are used, a high incidence of nausea and vomiting postoperatively; muscular relaxation with suxamethonium causes muscle pains (often severe in these early ambulant cases); and intubation causes sore throats. Modern anaesthesia has contributed many advantages but nothing in life is free.—I am, etc.,

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### Mode of Action of Verapamil in Man

SIR,—We read with interest the report of Dr. L. Schamroth and others (11 March, p. 660) which confirmed our observation made in 1969 and recently reported (9 October 1971, p. 113) that verapamil is a

drug of promise in the treatment in man of dysrhythmias arising in the specialized conducting tissue of the heart. However, in the treatment of atrial fibrillation the mechanism of the regularizing effect of verapamil is not as uncertain as Dr. Schamroth and his colleagues suggest. Conduction along the atrioventricular specialized conducting tissue is under vagal control and augmentation of this activity will prolong the refractory period. The phenomenon of delay in conduction along the atrioventricular specialized conducting tissue was first demonstrated by Trendelenberg,<sup>1</sup> and can present a problem when fast atrial pacing is used to achieve high heart rates with 1:1 specialized conducting tissue conduction. We have observed (unpublished) that intravenous atropine (0.6–1.2 mg) can overcome this Trendelenberg effect. In addition, we have noted that the effect of verapamil on slowing the ventricular rate in patients with atrial fibrillation can be reversed by atropine. We would therefore repeat our suggestion that an important action of verapamil is to augment the effects of vagal tone on the specialized conducting tissue of the heart.—We are, etc.,

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<sup>1</sup> Trendelenberg, W., *Archiv für Anatomie und Physiologie*, 1903, p. 271.

### Trimethoprim Resistance determined by R Factors

SIR,—In our paper "Trimethoprim Resistance Determined by R Factors" (Mr. M. P. Fleming and others, 18 March, p. 726) I failed to make it clear that the routine bacteriology in the U.C.H. Group is undertaken in two separate laboratories. The methods used for antibiotic sensitivity testing in the two laboratories are similar, but the patients from whom specimens derive are not. Thus my department handles, for instance, material from a large geriatric department and from general practice, while the other laboratory does not. As a result, the patterns of antibiotic resistances observed are not always alike. For instance, in my laboratory one third of urinary *Klebsiella* strains are found to be resistant to trimethoprim whereas in Dr. E. Joan Stokes's department the figure is lower (3 out of 41 strains in the last 3 months).

I apologize for any misunderstanding which might have arisen over this.—I am, etc.,

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### "Asthma and a Lump in the Breast"

SIR,—In the article "Second Opinion, Please: Asthma and a Lump in the Breast" (11 March, p. 681) it was assumed that the asthma was precipitated by the psyche. It was by no means established that the asthma was not due to allergy to the budgerigar. In favour of such a diagnosis would be the period of exposure to the budgerigar; that, for what it is worth, skin testing showed sensitivity only to feathers; and that the bird was looked after in the house of a friend while she had her mastectomy and may well not have been returned to the house when seen by the health visitor.

The asthma cannot be blamed on the psyche until it has been established that the return of the bird does not precipitate an attack.—I am, etc.,

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SIR,—It is disappointing to read an article (11 March, p. 681) such as this and find that no assessment is made of respiratory function. The patient had haemoglobin, E.S.R., and urine examination; Bencard skin test, x-ray, and E.C.G., and it was suggested that she be treated with steroids. At no time was even as simple a respiratory measurement as the peak expiratory flow rate made, although this is possibly the most relevant investigation. In the absence of this information it is very difficult to assess the success of the response to her plea for "someone to look at her body".—I am, etc.,

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### Births and Deaths

SIR,—Your note on the number of births and deaths in England and Wales in 1970 and 1971 (18 March, p. 758) includes a most misleading sentence, "The net result was an increase of 6,000 in the population from these changes". This should have read, "The net result was an increase of 6,000 in the population growth from these changes." In fact the excess of births over deaths in 1970 was 209,292, and in 1971 215,681, which produces a net increase in the population of 424,973 over the two years.

At a time when the growth of population is causing concern, it is important that the facts should be made completely clear.—I am, etc.,

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### Record Folder for General Practice

SIR,—Dr. Gillian Strube (19 February, p. 513) discusses the advantages of the proposed use of the A4 sized folder in general practice. I was recently awarded an Upjohn travelling fellowship by the Royal College of General Practitioners to study records in general practice. Briefly, I had 800 A5 size double-pocket wallets made and these were tried by a large number of general practitioners. My conclusions were that a new form of record system in general practice was essential. The old medical record envelope has had good service for over half a century, and general practitioners are well aware of the inadequacies of this record, which is of no accepted paper size.

The new international paper size has been introduced into Britain and is here to stay. Hardly any general practitioners I have met have any idea what this new paper size revolution really means. It is a most logical system and has already been accepted by industry and most hospitals. The A4 size is slightly larger than the traditional foolscap sheet of paper. The A5 size is exactly half this size.

Most doctors are agreed that some change in the medical record system of general practice is inevitable. Our problem is which size should be adopted, the A4 or the A5.