They were divided into three equal groups, one receiving 2,000 IU daily, another 10,000 IU daily, and the third 50,000 IU daily. The patients were treated for up to one year and the number of fits occurring during this time compared with the number recorded during a similar period immediately before vitamin D treatment. The results are presented in the table. A breakdown of the results into treatment groups did not reveal a dose-related effect.

Effect of Vitamin D Therapy on Fit Frequency in 21 Patients (Major fits = with convulsions; minor fits = all other types).

Type of Fit	Fit Frequency		
	Reduced	Unchanged	Increased
Major ..	6	7	8
Minor ..	11	3	7

Despite the duration of treatment and the size of the doses given to the patients no increase in the mean plasma calcium level of the 21 patients was seen (8·9 mg/100 ml before and at the end of the treatment period), which is in accord with the findings of Dr. Christiansen and his colleagues. Contrary to their experience, however, all but two of our patients showed a fall in plasma alkaline phosphatase (mean values 10·4 K.A. units before treatment and 8·3 K.A. units after).

We did not find these results sufficiently encouraging to justify proceeding to a placebo-controlled study.—We are, etc.,

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1 Richens, A., and Rowe, D. J. F., *British Medical Journal*, 1970, 4, 73.
2 Dent, C. E., *et al.*, *British Medical Journal*, 1970, 4, 69.

Postpartum Tubal Ligation and Local Anaesthesia

SIR,—The importance of adequate anaesthetic cover in maternity hospitals has constantly been emphasized to avoid the accidents referred to in the *Report on Confidential Enquiries into Maternal Deaths*[1] and to deal with the increasing demand for epidural analgesia. Until the anaesthetic services expand to meet these requirements it is difficult to demonstrate any priority for a general anaesthetic for the routine postpartum tubal ligation which occurs at short notice.

To overcome this problem a method of performing tubal ligation under local anaesthesia within 24-48 hours of delivery has been introduced in this hospital. The patient is prepared for the possibility of a general anaesthetic, and premedication with 100 mg of pethidine intramuscularly is given 30 minutes before operation. Immediately before scrubbing up diazepam is given intravenously—10 mg at first and more added during operation if necessary. Local infiltration is carried out with 20 ml of 1% prilocaine hydrochloride and a routine Pomeroy operation performed using plain catgut.

Of 208 patients in the initial study, three required a general anaesthetic, two because they were uncooperative in spite of additional diazepam and local anaesthetic and one because of adhesions. The remainder cooperated well and there were no respiratory difficulties, though often a total of 20 mg diazepam was required. The patients found the degree of sedation and amnesia acceptable and the postoperative sequelae were less than after general anaesthesia.

Our impressions stimulated a prospective study, and a preliminary assessment of this shows the method to be so acceptable to staff and patients that we feel it could be the method of choice even if general anaesthesia was more readily available.—We are, etc.,

ALOKA DEY
GORDON MACKAY

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1 Department of Health and Social Security, *Report on Confidential Enquiries into Maternal Deaths in England and Wales, 1967-1969*. London, H.M.S.O., 1972.

Malaria in the United Kingdom

SIR,—In their article on this subject Professor L. J. Bruce-Chwatt and others (29 June, p. 707) conclude that "protection from malaria infection when travelling . . . is to a large extent the responsibility of the individual concerned. The medical profession can only advise the public at large and organizations concerned with overseas travel of the risk of infection."

I would like to know where, when, and how the "individuals concerned" (who will number over a million this year, according to the authors) are expected to get the necessary information about protection. The ordinary traveller hardly ever approaches a practitioner before he goes abroad, and, unless things have considerably improved recently, he is unlikely to get much help even if he does. (Maybe the recent issue to all practitioners by the Department of Health and Social Security of the pamphlet referred to below may have had some useful effect.)

The only people the traveller usually sees about his journey if he is going by air, as 95% do, are the agent, the airport authorities, and the representatives of the carriers, including the cabin staff. The agents and the carriers do not seem to go out of their way at the moment to offer health advice to the traveller who may be going on some glamorous package tour to the malarious tropics. International regulations regarding smallpox, yellow fever, and cholera are carried out, as they have to be, but there the matter often ends. The excellent pamphlet "Notice to Travellers—Health Protection" (Health Departments and Central Office of Information) is supposed to be issued to all travel agents. Unfortunately there is no official pressure on the agent, as there should be, to offer a copy of the pamphlet or to disclose its contents to the potential traveller.

It is time the public was properly protected from its dangerous ignorance of the sometimes serious health hazards of travel abroad by making sure that the information available reaches them. As I see it, the major responsibility for this must rest with the agent and the carrier. Of course it is ultimately "the responsibility of the individual concerned" to swallow the antimalarial tablets that he should have been told about. The same is true of using a life jacket and swimming if the plane falls in the sea. In the aircraft the public are warned by the public address system. Why not warn them about malaria?

The medical profession should be more positive than merely offering advice. It should go out of its way to influence the press, television, and the other media which spend so much of their time cajoling the innocent (and, in my view, unprotected) public to take a holiday "in the sun," which could easily mean exposure to potentially dangerous diseases such as malaria. To put the onus for protection against malaria on "the individual concerned" seems to me to be completely unrealistic in present circumstances.—I am, etc.,

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Vein Stripping

SIR,—Dr. D. Freedman's arguments on vein stripping (18 May, p. 387) provoke some comments.

(1) It is not fair to quote the report by Galen in 150 A.D. (or, even worse, the operative report on the dictator Marius much earlier) as an argument against vein stripping. Firstly, the operative technique was very different from modern stripping. Secondly, Dr. Freedman may have heard of something called anaesthesia and proper postoperative treatment, including analgesics, anti-inflammatory drugs, and good bandaging, which certainly make the postoperative period something very far from "mediaeval torture."

(2) It is correct that stripping does not take care of the incompetent perforators. It should be kept in mind, however, that varicose veins and incompetent perforators are not synonymous. They are two different states with different symptoms. If both are present at the same time measures should be taken against both, which is easily done at the same operation.

(3) Stripping from the ankle to the groin is possible in one stage in about 80% of cases of even very tortuous varicose veins. If not possible further incisions along the saphenous pathway are easily done without further harm to the patient or the surgeon. It it absolutely not true that "only normal veins can be stripped."

(4) In our series of 5,400 ambulant strippings the risk of postoperative complications was below 2%, even very slight infections and postoperative bleeding included. We had only three more serious complications (0·06%) none of which threatened life or limb. It is true that arterial complications were reported in the literature. In Sweden, however, six such cases were reported to the Medical Board. It was found that all these operations were done by inexperienced surgeons. It is unfair to judge a surgical method by the results obtained by surgeons unfamiliar with the basic technique of the operation.

(5) The long saphenous vein may be used as a spare part for reconstructive arterial surgery in very few cases. It should be remembered (*a*) that there is another saphenous vein; (*b*) that most strippings are performed on women and the majority of arterial reconstructions on men; (*c*) that many methods, such as, for example, endarterectomy, are available; and (*d*) that it is a doubtful medical principle to abstain from the best possible treatment for the reason that the patient in the future might develop another disease.

(6) Dr. Freedman works in a country with so-called socialized medicine and should know that there is no economic burden for the patient having an operation for varicose veins. There is no reason to admit patients with this disease to a hospital unless the patient has some concomitant disease necessitating prolonged postanaesthetic supervision.

Dr. Freedman admits that "the stripping sound is useful in removing isolated segments of vein as those under an ulcer or eczematous area." These are the conditions in which a stripper really is *not* necessary. In these cases the pertinent perforating veins should be ligated and, most often, varicose clusters should be left at the operation in order not to imperil proper wound healing. I think that Dr. Freedman is alone with his view, at least as long as it is founded on the arguments he presents.—I am, etc.,

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Gonorrhoea in Obstetrics and Gynaecology

SIR,—Dr. R. A. Sparks's letter (22 June, p. 666) on this subject summarizes very helpfully and with factual support of recent origin what many of us have been saying for some years about the diagnosis of gonorrhoea. Especially gratifying is Dr. Sparks's report that the Royal College of Obstetricians and Gynaecologists is nowadays willing to approve a post in venereology for all or part of the elective year preceding the M.R.C.O.G. examination. This continues the college's characteristically rational approach to the realities of modern society.

There is, I believe, a need for more thought in this direction by young people holding the M.R.C.O.G. With the continued control of syphilis, the rising incidence of other well-established sexually transmitted diseases, and the arrival on the clinical scene of previously rare or unrecognized sexually transmitted infections the emphasis in the specialty of venereology is nowadays very much on what might be called medical gynaecology. The day when the holder of the F.R.C.S. or M.R.C.P. dominated venereology is passing. In my view the future lies with holders of the M.R.C.O.G. In the past decade four trainees with this qualification have passed through this department to consultant posts. The prospect for others is excellent.

Venereology is in the privileged position of being able to secure approval for supernumerary registrarships, especially if linked with a named and suitable candidate. Special provisions are available for women doctors holding the M.R.C.OG. There is no doubt that if you are young, hold this qualification, and apply yourself to training in the subject a consultant post in venereology awaits you long before the average age of consultant appointments.—I am, etc.,

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SIR,—Dr. R. A. Sparks (22 June, p. 666) is right to stress the importance of correct microbiological techniques in the investigation of women with salpingitis for *Neisseria gonorrhoeae* and it is clearly important that the sexual contacts of women who are found to have a gonococcal infection are traced and treated.

A further important point arises in connexion with follow-up. Clinical resolution of gonococcal salpingitis does not necessarily imply a microbiological cure, and cultures from the urethra, cervix, and anal canal should be negative for *N. gonorrhoeae* on at least three occasions over a period of two to three weeks before patients are pronounced cured. Relapse of the salpingitis may otherwise occur, or infection or reinfection of a sexual partner.

I suggest that women found to have a gonococcal salpingitis should be followed up by the gynaecologist in conjunction with the department of sexually transmitted diseases, where the facilities for the isolation of *N. gonorrhoeae* are readily available and where any contact tracing action can be undertaken.—I am, etc.,

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Tetracyclines after 25 Years

SIR,—It seems to me that in your leading article (25 May, p. 400) you may have overstated the risks involved in the administration of the tetracyclines to patients with latent kidney disease if by that you mean in the absence of azotaemia. In all the papers which you cited and in the comprehensive review by D'Arcy and Griffin[1] significant deterioration of renal function was found only in patients with pretreatment blood urea values greater than 60 mg/100 ml.

This matter is of particular concern to physicians with an interest in chest disease as these drugs have been frequently used on a long-term basis for the prevention of winter exacerbations of chronic bronchitis, and their use in certain cases was recommended following a large-scale British controlled trial.[2] No monitoring of renal function took place in this trial but there appear to have been no episodes of what could be construed as deterioration due to renal failure. In a recent study of my own[3] among a small group of chronic bronchitics there was no evidence of a rise in blood urea values during continuous tetracycline administration over a period of 3-6 months. Furthermore, though it had been arranged to exclude patients from this study with a pretreatment blood urea level greater than 50 mg/100 ml, in the event none of a group of 23 chronic bronchitics had to be excluded for this reason.

This suggests to me that the long-term administration of tetracyclines to chronic bronchitics is not contraindicated because of problems of renal toxicity, as the risk of deterioration with a normal blood urea seems extremely slight and the frequency of frank renal insufficiency in this disease may in fact be quite low. This is not to deny that physicians should be aware of this possibility when a patient on tetracycline deteriorates unexpectedly.—I am, etc.,

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1 D'Arcy, P. F., and Griffin, J. P., *Iatrogenic Disease*, p. 124. London, Oxford University Press, 1972.
2 Johnston, R. N., *et al.*, *British Medical Journal*, 1969, 4, 265.
3 Ferguson, G. C., *British Journal of Clinical Practice*, 1974, 28, 131.

Types of Emphysema

SIR,—Your leading article (15 June, p. 571) merits elaboration. From the pathological standpoint confusion between types of emphysema commonly arises for two reasons. Firstly, the basic process is often obscured at necropsy by secondary disruptive changes which produce gross architectural distortion, and secondly, pigmentation may be incidental to urban residence rather than the result of occupational exposure to dust inhalation.

Three-dimensional examination of early lesions in the lungs of individuals dying from non-respiratory conditions, in addition to emphysematous lesions which have contributed to or been primarily responsible for death, permits a clearer appreciation of morphology in both the industrial and the non-industrial population. As a result it has proved possible to recognize types of emphysema by the distribution and the form of the enlargement within the lung acinus, and a revised classification on this basis has recently been given. This microanatomical approach has the advantage of indicating mechanisms that are evidently involved in the pathogenesis of the different varieties of emphysema.[1]

In lungs fixed by distension the emphysematous changes are typically either (1) a panacinar pattern in which all the territory supplied by terminal bronchioles is enlarged (with distal acinar emphysema probably representing a less extensive change of the same nature), so giving a more or less uniform appearance throughout lobules, or (2) circumscribed emphysematous spaces set in more or less normal lobular parenchyma. To describe all such circumscribed lesions as centriacinar is inaccurate microanatomically and obscures the pathogenic mechanisms concerned. Two basic factors evidently contribute to the development of circumscribed lesions: (*a*) dust accumulation, as in coal workers, where alveoli around the proximal part of the acinus are consolidated, and (*b*) inflammation which disrupts alveoli at an early stage and may affect the population at large and to which cigarette smoking contributes.[2] In North-east England proximal acinar emphysema attributable to inflammation (formerly referred to as centrilobular emphysema) is rarely encountered, the lesion being seen at a more advanced stage when acinar boundaries have been transgressed and the emphysema, though still circumscribed, is properly described as irregular in type. There is little doubt that a chronic bronchioloalveolitis is responsible for these changes. Review of earlier material from South Wales indicates that examples formerly regarded as affecting only the proximal portion of the acinus are in reality irregular in type.

Failure to distinguish circumscribed forms of emphysema by three-dimensional study has confused the parts played by inflammation and dust accumulation. Urban dwellers develop irregular emphysema and the inflammatory response encloses dust-laden macrophages. Coal workers may also develop irregular emphysema which likewise exhibits pigmentation from industrial exposure, but here personal pollution is the likely explanation, dust accumulation, though heavier than in town dwellers, being of little importance. Coal workers may, however, acquire a simple dust lesion with which proximal acinar emphysema may be associated. Several