(p. 188) a letter appears signed by 120 doctors from the registrars' room at a leading teaching hospital. It would be interesting to know if a reasonable proportion, or even if 1%, of these doctors so "concerned" and "alarmed" at their prospects are being trained in geriatrics or psychogeriatrics—where the prospects of attaining consultant status are relatively good. Without an adequate supply of suitably trained registrars consultant posts in geriatrics will continue to go begging.

When one considers that perhaps half the total hospital population is aged over 65 and that the proportion is increasing, it is surprising that there are still large regions where little or no training is undertaken in geriatric management. There is reason to believe that the Ministry of Health is aware of this increasing need, but is this equally true of academic advisers who must compete at regional level for available funds? Given the present advisory structure it is pertinent to ask whether the need will, or can, be met without the establishment of university departments of geriatric medicine.—I am, etc.,

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Spout Cervical Oesophagostomy

SIR,—One of the distressing terminal features of malignant obstruction of the oesophagus is the patient's inability to swallow his saliva, which consequently has to be spat out frequently and leads to drooling and overspill into the respiratory tract, causing coughing and recurrent pneumonitis.

In association with gastrostomy, cervical oesophagostomy effectively deals with the problem of the saliva and, furthermore, enables the patient to eat and drink on a "sham feeding" basis. The management of a cervical oesophagostomy as usually performed can be a trial, as it is difficult to arrange an appliance on such a mobile portion of the anatomy and maintain a watertight fit on a flush type stoma, with consequent risk of excoriation of the skin.

To construct a cervical oesophagostomy with a spout overcomes this difficulty, in that efflux from the stoma drops clear of the skin into a suitable receptacle. A rubber bag held in place by linen tapes tied around the neck, or a disposable polyethylene bag with an adhesive flange, are such receptacles (Fig. 1). In constructing a spout cervical oesophagostomy the oesophagus should be mobilized as far distally as possible from an anterior sternomastoid neck incision on the left side and the oesophagus transected. It appears to be unnecessary to suture close the distal

FIG. 2

cut end, as to do so effectively is difficult from a cervical incision and no penalty arises from leaving it open, provided a generous drain is placed down to it into the posterior mediastinum. The mobilized proximal oesophagus is brought out of the cervical wound, turned back on itself, and the cut edge sutured with interrupted sutures to the skin edge of the incision (Fig. 2). At this level the intrinsic blood supply of the oesophagus is adequate to sustain a spout of at least 2 in. (5 cm.) projection. A disposable adhesive polyethylene bag is immediately applied.

The patient is then enabled to eat and drink as he wishes. Periodically the receptacle is emptied and its contents either disposed of or used after homogenization in the gastrostomy feeds.—I am, etc.,

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Edinburgh Transplantation Unit

SIR,—On 8 July the *Guardian* published a letter signed "Hospital manager" criticizing the spending of public money on what the writer referred to as "the expensive new heart transplant unit at Edinburgh."

It seemed clear that this letter could only refer to the Nuffield Transplantation Surgery Unit, and if this were the case it seemed to me that the author of the letter in the *Guardian* was misinformed and his criticism was quite unfair. I therefore wrote a letter to the *Guardian* in reply pointing out firstly that the Nuffield Transplantation Surgery Unit is not a heart transplant unit, but has been built to meet the needs of a wide variety of patients who are especially at risk as regards infection, including *inter alia* organ transplant recipients, patients receiving immunosuppressive treatment on account of autoimmune disease, patients with certain types of cancer, and patients who have been accidentally exposed to ionizing irradiation; and secondly that the Unit was built with money provided in the form of a generous

grant by the Nuffield Foundation. A fortnight after I had sent my letter to the *Guardian* it had still not been published. In reply to an inquiry the editor stated that it was in type but he could not promise that it would be published.

It seems to me irresponsible for a widely read daily paper to publish a letter which is quite misleading, and then fail to publish promptly a reply setting out the true facts of the situation. It also seems odd to me that so many people who are lucky enough to have healthy kidneys and other organs seem to resent money being spent to save the lives of those who have not, yet comparatively few object to large sums being spent in searching for yachtsmen and mountaineers who have deliberately chosen to accept the risks inherent in their particular sport. The cost of such searches is sometimes defended on the ground that they provide important experience for the rescue crews; what is often overlooked is that research in one field of medicine often leads to major advances in another. Research in transplantation, for example, has played a major part in the development of modern immunology, which in turn holds promise of major advances in the treatment of many diseases, including rheumatism and cancer.

There are many ways in which public money is wasted which are only too obvious. As a doctor, and also as a sailor (albeit a modest one), I cannot accept that saving life is one of them. Surely no man of good will, certainly no Christian, would deny the truth of Donne's assertion "... any mans death diminishes me, because I am involved in Mankind."—I am, etc.,

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Transferable Resistance

SIR,—Within the past two years much attention has been drawn to the possible epidemiological significance of the "resistance transfer factor," an episomal component present in certain strains of enteric Gram-negative bacteria. The arguments that this episome can be transferred from resistant non-pathogenic organisms to non-resistant pathogens and can thus prejudice the usefulness of antibiotics in therapy have been presented elsewhere with varying degrees of vehemence.¹⁻³

Rather than reviewing these arguments, I shall recount some experiences that were gained during the use of antibiotics as animal feed additives. This procedure has been adopted widely in many countries throughout the world since 1950^{4,5} when an antibiotic (chlortetracycline) was first introduced into the feeding of farm animals in the U.S.A. Chickens, pigs, and calves responded well to antibiotic feeding in terms of increased growth. Bloody diarrhoea was rife among pigs in the Middle West; it disappeared promptly when they were given food containing small amounts of chlortetracycline. It was my opinion in 1950, expressed verbally but not in publications, that bacterial resistance to antibiotics would rapidly develop in farm animals as a result of feeding chlortetracycline, and that the use of antibiotics

FIG. 1

in animal feeds would become ineffective after a year or two. It was therefore a growing surprise year after year that no such loss of effectiveness took place. The results of this massive "experiment" on millions of animals negate the concept that resistance transfer would rapidly take place from the huge numbers of non-pathogenic coliforms in the digestive tract to pathogenic salmonellae and other injurious organisms that presumably were endemically present in the farm environment. Instead, another phenomenon occurred; in animal colonies and on experimental farms where antibiotics were fed the growth rate of the non-antibiotic-fed controls increased."

A few years later, encouraged by the effect of "low levels," various investigators introduced the feeding of higher levels of antibiotics, not because the low levels had lost their effect, but because it was desired to extend the use of antibiotics in an attack on other diseases, including "chronic respiratory disease" of chickens.⁸ Again, repercussions have not been reported in the shape of increased resistance occurring in diseases of either animals or animal attendants.

The occurrence of resistant shigellosis in Japan⁹ or of infantile enteritis in England¹⁰ has led to demands for a re-examination of the effects of feeding antibiotics to animals. Such research is desirable, but let us hope that it will be done carefully and not be preceded or forestalled by hasty judgements and unjustified decisions. The hospitals are still *par excellence* the places where infectious resistance is nurtured and spread. The animal feeding programme has made great contributions to the food supply and to the health of farm animals for seventeen years, with practically no objectionable results.

One final point: The addition of antibiotics to the diet does *not* cause vitamin deficiencies in either animals or man. Antibiotic feeding spares the requirement for vitamins in animals^{11, 12} and in human subjects.¹³—I am, etc.,

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Voluntary Sterilization in the Male

SIR,—Your approval of vasectomy as a definitive method of voluntary sterilization (1 June, p. 508) warrants comment and caution. There can be no doubt as to its simplicity and effectiveness. The long-term medical complications of this procedure, however, have yet to be critically evaluated.

This disturbing note of reserve stems from my observations¹ on men in their 20s and 30s who presented with a host of puzzling systemic disorders within one or more years after elective vasectomy. Previously, all had enjoyed apparent good health. The features for which they sought consultation included unexplained thrombophlebitis, prolonged fever, generalized lymph node enlargement, arthropathy, recurrent infection, various skin eruptions, glomerulonephritis, interstitial pulmonary fibrosis, severe narcolepsy, acute multiple sclerosis, liver dysfunction (increased bromsulphalein retention), increased circulating gammaglobulin, and a biologic false-positive serologic reaction. Aside from reactive hypoglycaemia, the only common denominator was vasectomy. The possible pathogenetic mechanisms have been discussed in the cited paper; they include induced hormonal imbalances, autosensitization to testicular nucleoprotein, and altered blood coagulation. Since my initial report, these findings have been encountered in additional patients. By questioning *every* individual with such unexplained features, a history of vasectomy prior to their onset has been uncovered when it was completely forgotten during routine query about previous surgery.

In view of the vast socio-economic implications of population explosion, it is understandable that these admittedly limited clinical experiences are disturbing to all who recognize the urgent need for its enlightened control, including myself. Failure to pursue the matter by careful analysis of large numbers of vasectomized men, however, may be an invitation to wholesale iatrogenic damage. This is especially pertinent when governments formally encourage and even subsidize such surgery. Restraint also should be exercised when projecting the purported innocuousness of mass vasectomy programmes being conducted in famine-threatened countries on to the populations of relatively affluent countries, because its immunologic and other sequelae may be conditioned by nutrition, other ecologic factors, and hyperinsulinized-diabetic state. In a recent review of vasectomy in India² it was pointed out that as many as 80% of the Indian population suffer from "malnutritional dwarfism."—I am, etc.,

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Compulsive Gambler

SIR,—I have been hoping that some of my colleagues better qualified than I would challenge the opinions expressed in the leading article on the compulsive gambler (13 April, p. 69). In this it was said that "psychiatry, it seems, had become one arm of the law." If this indeed were the situation then a large part of the responsibility would lie at the door of the psychiatrists themselves, on whose advice the courts rely.

But when it comes to investigation as to whether antisocial behaviour can be confused with mental illness and whether psychiatrists must beware of having forced on them the role of controlling misfits and regarding it as their function to normalize the abnormal and non-conforming, then, I think, it is time to take stock of and normalize our own opinions. The doctor's primary duty may be, as you say, to diagnose and treat the patients and not to enforce society's rules. But on whose researches are based and modelled the rules of society? On whose researches of hygiene are the rules of the public health authorities based? Who prescribes the tranquillizers, the sedatives, and the antidepressants which now society needs to control? Who directs the anticoagulant, the corticosteroid, and the hormone which modify modern life? Has not the contraceptive pill made an impact on society? Does not the State give vast credence to the various medical certificates, and why? Why, then, having contributed towards the introduction of these revolutionary changes in modern life, should we seek to stand outside the rules of society when it comes to enforcement of the rules it has to make?

Where does social misdemeanour end and mental illness begin? This basic problem in the solution of the causes of crime is, so far as I can see, the preoccupation of the Margery Fry organizations and the Howard League. I would most sincerely hope that the medical profession would give all the help they can. Surely we should all give assistance in solving this problem with as much keenness and energy as we use in sorting out somatic disease. But, please, do not let us shrug our shoulders and say that the enforcement of society's rules is none of our business.—I am, etc.,

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E. C. K. KENDERDINE.

Doctor or Social Worker?

SIR,—It is axiomatic that effective medical care involves general practitioners in social and psychological problems surrounding illness, and that these facets of care represent a large part of their total effort. Similarly, social workers in the personal services have found that social problems are commonly dependent on physical or mental illness, or upon problems of personality, and that these must be fully understood if their work is to be anything but shallow. In short, much medical and social care is indivisible, and will remain so, however future medical and social services may be structured. Medical and social personnel carrying direct responsibility for patients at ground level should work in sufficiently close contact, and with sufficient mutual confidence, to permit genuine close teamwork between them, with day-to-day mutual consultation on common problems. To what extent is this truth realized by the planners of our future services?

Equally important, both general practitioners and social workers need "clinical" autonomy, with minimal hierarchical interference. Assumptions that "the traditions of professional confidence are increasingly anachronistic" (3 August, p. 266) will be looked at askance by doctors and social case-workers alike. Patients themselves must