for more urological surgeons. Prostatectomy is common and the clinical decision to perform the operation is seldom difficult. Transurethral resection is a technique which can be learned, like any other, from a good teacher with plenty of cases. This technique need not be the preserve of a urological specialist, just as colonoscopic polypectomy is neither the preserve of the physician or surgeon nor justification for gastroenterology as a specialty. Surely what most hospitals want and need in these hard economic times is more surgeons who, among other things, can resect prostates effectively. There is indeed a need for specialists in almost every field, but not everywhere.

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SIR,—Your leading article "Second-best prostatectomy?" (1 March, p 590) is timely. There have, of course, been many general surgeons appointed with an interest in urology, who then saw the light and now do nothing else but urology. It is surprising that the figures of mortality are not even more startling because most units would accept a mortality rate on unselected series of transurethral resection only if it was in the region of 0.2-0.5%. You are quite right to point out that the figures recently published by Leach¹—2.3% in 600 prostatectomies—is hardly an improvement on Thompson-Walker's figures in the 1920s.

Apart from the other reasons discussed, it is important to point out that death from pulmonary embolus in prostatectomy performed by transurethral resection is virtually unknown, whereas a considerable amount of the mortality in open prostatic surgery is in fact associated with a disastrous incidence of pulmonary embolus.

Although the "difference in results between the specialist and the generalist is there for all to see," in fact this piece of information is not immediately available to referring practitioners and this leading article is more than welcome and timely.

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¹ Leach RD. *Ann R Coll Surg Engl* 1979;61:459-62.

SIR,—Your leading article "Second-best prostatectomy?" (1 March, p 590) raises some interesting points about the training of surgeons. While acknowledging that in the past "well-trained and dedicated general surgeons... learnt all there was to learn about urology..." you seem to accept that today the general surgeon with an interest in urology does not exist. If this is correct, why not?

It would be surprising if, as stated, the results of prostatectomy from specialist urological units were no better than those from general surgical units. Specialist units there must be; but, to modify a phrase used some 30 years ago by Sir Denis Browne when advocating the acceptance of paediatric surgery as a specialty, should the aim not be to set a standard rather than create a monopoly?

With economies restricting the level of existing services, to say nothing of their expansion at specialty level, would not the best way of improving urological care be more instruction to the present senior registrars and lecturers in the higher surgical training

programme (general surgery)? The urological aspect of their training may have suffered in recent years. The time these young men and women are required to spend in training is already too long and with new consultant posts apparently being delayed this problem is not likely to improve in the near future. The opportunity should therefore exist in a rotational programme for more instruction in urological surgery. With aids such as the teaching eyepiece available with modern endoscopes—perhaps with relay to a television screen—the statement that "...protracted apprenticeship and specialisation in urological surgery" is demanded in order to become a competent endoscopic resectionist may be questioned. The techniques required of a general surgeon with a special interest in vascular or paediatric surgery are probably equally demanding. Such general surgeons have contributed significantly to the improvement in standards of care achieved in district general hospitals and most accept the need for regional centres to which the particular problem of their specialty may be referred.

Is there not still a place for the general surgeon with special experience in urological surgery?

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SIR,—The statement in your leading article "Second-best prostatectomy?" (1 March, p 590) that the general surgeon with an interest in urology does not exist seems to be open to some misinterpretation. Either you are ignoring the existence of a large group of surgeons in this country who most certainly do exist or, perhaps, you are saying that there are no longer senior registrars in general surgery who have an interest in urology.

I was appointed as a general surgeon with an interest in urology 15 months ago. Since that time I have done a large number of transurethral operations and only a handful of open prostatectomies. There is a good balance between general surgery and urology and I have found the job most satisfactory.

Of course, the ideal solution would be to have enough funds available to appoint specialist urologists wherever they are needed. At the moment the money is not available and therefore a compromise must be found. The training of a disproportionately large number of urological senior registrars cannot be the answer; nor is it the answer to replace retiring general surgeons by urologists, for obvious reasons. It is therefore essential that a regulated number of senior registrars in general surgery continue to be trained in the specialist techniques of present-day urology, albeit for a lesser time than the specialist urological trainee. It is after all a compromise. The general surgeon with an interest in urology must continue to exist.

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Cerebral atrophy or hydrocephalus?

SIR,—May I applaud your courage in trying to disentangle the complex web of conflicting data regarding the misnamed syndrome of normal-pressure hydrocephalus (9 February, p 348)? Since Adams and his associates showed that hydrocephalus could exist in

adults without a sustained increase in the intracranial pressure,¹ its occurrence following trauma, subarachnoid haemorrhage, or meningitis and its association with a cerebral neoplasm can be appreciated even if not fully understood. The cardinal feature of Adams's work was the demonstration that certain patients with dementia and hydrocephalus could make a sometimes remarkable improvement following a shunting procedure. The subsequent enthusiasm for shunting met with mixed success, several workers being unable to relate clinical improvement to any one of a large number of pre-shunt diagnostic procedures,²⁻⁵ while others were more optimistic.^{6,7}

However attractive an individual test may be in providing physiological or aetiological explanations for normal-pressure hydrocephalus, the clinical value lies in its ability to distinguish patients who will respond to cerebrospinal fluid shunting from those who will not.⁸ The problem is not simply one of diagnosing the presence of some form of obstructive hydrocephalus, but rather one of determining whether reasonable expectation of improvement justifies the risks involved in performing a shunting procedure in patients with dementia.⁶

To this end I agree that a multicentre trial is required where neurologists are prepared to refer all patients with the clinical features of a gait disturbance and progressive dementia. Following a static computed tomogram to confirm the hydrocephalus and to exclude an obvious cause for it, these patients would require to have pre- and post-shunt psychometry and dynamic metrizamide cisternography. It is only by having the courage to perform shunts on all of these patients that we will ever be able to determine the efficacy of neuroradiological investigations in predicting the likelihood of an individual patient benefiting from a shunt procedure.

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¹ Adams RD, Fisher CM, Hakim S, Ojemann RG, Sweet W. *New Engl J Med* 1965;273:117-26.

² Salmon JH. *J Neurosurg* 1972;37:423-8.

³ Shenkin HA, Greenberg J, Bouzarth WF, Guterman P, Morales JO. *JAMA* 1973;225:1486-9.

⁴ Jacobs L, Conti D, Kinkel WR, Manning EJ. *JAMA* 1976;235:510-2.

⁵ Jacobs L, Kinkel WR. *Neurology* 1976;26:501-7.

⁶ Messert B, Wannamaker BB. *Neurology* 1974;24:224-31.

⁷ Gunasekera L, Richardson AE. *Brain* 1977;100:749-54.

⁸ Stein SC, Langfitt TW. *J Neurosurg* 1974;41:463-70.

Single drug or polypharmacy?

SIR,—In attempts to prevent thrombosis enormous sums have been spent on many trials of usually a single or occasionally two drugs. The International Society of Haemostasis and Thrombosis recently considered these various trials and the conclusion was most disturbing. There was no general agreement that any drug had conveyed unequivocal benefit. Clearly no drug had so dramatic an effect that debate over the niceties of the trial was irrelevant.

Perhaps this means that the right drug or right dosage has not yet been found, but perhaps the whole approach is wrong. Thrombosis is a complicated process and must at least involve blood flow, platelet deposition, fibrin formation, and fibrinolysis. Each of these processes itself involves

sequential interactions of perhaps half a dozen reactants. The single-drug trial assumes that by blocking one part of one sequence the whole thrombotic process is prevented. But a single block may be bypassed. Then a single drug would not be expected to have dramatic consequences.

Two options are open. Firstly "blunderbuss" therapy in which all patients at risk receive a standard mixed "cocktail," including perhaps an antiplatelet drug, an anticoagulant drug, and a stimulator of fibrinolysis. Such polypharmacy gains respectability from the treatment of leukaemia, in which the use of many drugs acting on different sites was soon shown to be superior to single-drug therapy.

Secondly, there is perhaps a more logical application of polypharmacy in a multifactorial disease. Estimations are made of only those factors which are thought to predispose to thrombosis and which can also be corrected. Individual "tailor-made" therapy then consists in treating the abnormalities indicated by the tests. For example, blood flow is influenced by red cell mass and by the fibrinogen level. These can respectively be corrected by venesection or by phosphorus-32 and clofibrate. Raised antithrombin III and factor VII will respond to warfarin; fibrinolysis if found to be decreased is stimulated by stanozolol; "spontaneous" platelet aggregation is inhibited by aspirin; a short heparin thrombin clotting time is corrected by clofibrate and hyperlipaemia by diet or clofibrate. Other tests and other forms of treatment will emerge. Such tailor-made polypharmacy might carry an increased risk of haemorrhage, but a mild correction of a number of processes might well have clinical benefit with less risk of haemorrhage.

Perhaps some of the effort devoted to single-drug trials should be directed to one in which all identified and treatable abnormalities are corrected.

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Career prospects in geriatric medicine

SIR,—The consultant physician in geriatric medicine has a challenging, exciting, and exacting job, mostly looking after the "old" elderly who have multiple-system diseases, as opposed to physicians in other specialties, who see mainly the "young" elderly with single-system diseases. Those who manage their work in such a way that there is little or no waiting list will see a wealth of pathology and much acute illness in elderly patients, many of whom get well and return home. Such a physician will, of course, have to take a very active interest in rehabilitation, ensure a high standard of quality of life in continuing care units, and maintain a high morale among the nursing and paramedical staff throughout the entire unit. Good rapport with the community services is essential. He must know how the administrative system of the National Health Service works and how to make it work to the advantage of his patients. These aspects of his job require management skills of a high order and specific training in this subject has been available at special courses run by the King's Fund College. If this is not enough of a challenge there are considerable opportunities for research. Consequently, modern geriatrics is far from conforming to the unfortunately

often-held view that it is a dumping ground for unwanted patients and involves only the care of the demented and incontinent.

Career prospects in geriatric medicine are good, as your leading article pointed out (16 February, p 426). The number of elderly, especially the "old" elderly, is increasing in absolute terms and double the number of consultant geriatricians will be needed if the older patients are to be looked after adequately. On the other hand, the number of consultant physicians in general medicine in England and Wales is falling,¹⁻³ the age group of patients with whom they principally deal is not increasing, and money available to create new establishments is limited. If it is assumed that four years are spent by a senior registrar in general medicine, and 31 years as a consultant, to remain in balance about one senior registrar is required for approximately every nine consultant posts in general medicine. However, there is now one senior registrar to every five posts, suggesting that perhaps as many as 70 of the present senior registrars will have some difficulty in obtaining consultant posts in their chosen speciality.

Because of the need for more consultants to be trained in the care of the elderly, the DHSS has created bursary schemes for doctors already appointed to senior registrar posts in general medicine or related subspecialties.⁵ The aim is to enable a doctor to spend up to one year gaining experience in geriatric medicine. The gaining of a bursary is conditional on educational approval and would carry personal manpower approval. It is intended that bursary holders would be trained at various centres of excellence. It is likely that many senior registrars in general medicine have never seen what a modern geriatric unit can achieve, indeed many may not have even entered a department of geriatric medicine. Perhaps this offer may encourage some to "test the temperature of the water."

Thus career prospects in geriatric medicine are excellent and considerable satisfaction is there for the asking.

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¹ Medical Manpower Division, DHSS. *Health Trends* 1977;9:45-7.

² Medical Manpower Division, DHSS. *Health Trends* 1978;10:61-4.

³ Medical Manpower Division, DHSS. *Health Trends* 1979;11:53-6.

SIR,—The leading article on career prospects in geriatrics (16 February, p 426) cites the fact that 9% of geriatric consultants are women as evidence that the specialty "seems particularly to appeal to women physicians."

The proportion of women in geriatrics is, in fact, lower than the proportion of women in consultant posts as a whole, and it is much lower than in some of the other "shortage" specialties. The fact that it is higher than in general medicine and cardiology reflects, almost certainly, not that geriatrics appeals to them more than those do but that it is still relatively difficult for women to obtain consultant posts in specialties which are well supported with male candidates.

A research report completed last year¹ based on a survey of over 6000 doctors of all kinds showed that only 3% of women doctors and 3% of men doctors thought "treating old people only" to be an attractive attribute of medical work. Moreover, the proportion of

women doctors who thought "treating chronic cases" to be an attractive attribute of medical work was 35% (compared with 41% of men).

It is to be hoped that opportunities for women in all specialties will gradually become more evenly distributed as their numbers increase, but evidence at present does not support any assumption that proportionately more women are geriatricians than general physicians because it is particularly attractive to them. Indeed, on the contrary, it is perhaps surprising in view of the career opportunities in geriatrics that more women do not take advantage of these opportunities, as they have done, for example, in anaesthetics (17% women) and mental handicap (20% women).¹

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¹ Hutt R, Parsons D, Pearson R. *The Determinants of doctors' career decisions*. Brighton: Institute of Manpower Studies, 1979: 109-46, 269-75.

SIR,—Your leading article (16 February, p 426) on career prospects in geriatric medicine prompts a number of questions on this expanding specialty which have never been adequately answered. Is geriatrics a good thing, do we need it, why treat the elderly as a race apart, and do old people like the prospect that confronts them?

The answer to the last question is emphatically that they do not. Those who are still articulate but see themselves being funnelled into the system look with utter horror on the geriatric ward as a miserable prison for their declining years, where they will grow senile at an increased rate in company with other old people.

The elderly want and need the company of the young which gives them the stimulus to keep mentally alert and interested. This they used to get when they were managed with other human beings in the general wards. Of course, they got a bit confused at night and kept other patients awake; but by day they were adopted by the younger patients and kept an interest in life. Some of them were a useful pair of hands, a fact which gave them added stimulation and fulfilment. They are actually human beings who have spent their entire lives growing older in mixed company, not isolated in their own age group. Unfortunately, in Britain we are not a caring society and the elderly have no pressure groups worth speaking of. Consequently the way we treat them is particularly shameful.

It is probably too late to reverse the policy decision to isolate the elderly in ever-expanding geriatric units. However, this is the last place the old people themselves want to end up in. And end up there many of them do, overinvestigated and under-cared-for, instead of dying in the relative comfort and familiarity of their own homes, however inadequate many of these may be in Great Britain.

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Motor neurone disease

SIR,—In his personal account of motor neurone disease, Mr Roger Carus tells us "No one cared (16 February, p 455). No one had heard of motor neurone disease. The doctor didn't know what to do. We were just