Manpower planning—a selector's view

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Dear Scrutator,

Ever since September 1976, when I read one of your regular columns,¹ I have been tempted to record a few facts and personal experiences in connection with your remarks on medical school selection. Now, in the throes of my 15th annual attempt to fill the places for medicine at a Cambridge women's college, I have an even greater incentive to do so.

In September 1975 the estimated cost of training a medical student through to qualification was £28 000. (I do not attempt to calculate the effects of inflation by October 1977.) This itself underlines the responsibility placed on selectors to ensure that this expenditure is justified, not only when the newcomers enter medical education but also during their training and after qualification. Our duty, therefore, lies in doing the best we can for the applicant, for the general public and the NHS in due course, and for the taxpayers' pockets.

Critics of the way that this responsibility is met may not be completely aware of the selection procedure. In describing the various stages of selection perhaps I shall be able to offer some advice to those preparing next year's candidates and at the same time extend some comfort and explanation to this year's unsuccessful applicants.

Much of what you said agrees with reported experience on medical school selection.² I have nothing but sympathy for the sentiments expressed when you state: "... many of my contemporaries have spent a miserable summer coming to terms with the rejection of a son or daughter by their chosen medical school." But I cannot let the next sentences pass without comment: "Are the universities right to require such high academic standards from would-be doctors? ... deans are unhappy at turning down enthusiastic, idealistic school-leavers simply on their A levels: but with so many good applicants ... how else can they choose? We know that A level scores correlate with *pass rates* in subsequent examinations. ... I should like to see far more variation in the courses offered by different universities." (My italics.)

Selection may be considered in four stages: (a) selection of medicine as a career by the candidate; (b) selection by school careers staff of likely candidates coupled with advice on A level courses; (c) selection of medical schools by schools and candidates; (d) selection by medical school of suitable new entrants.

Self-selection

Self-selection may occur at a very early age—in the case of medical families, often unconsciously. It may, therefore, be taken almost too much for granted, and other, possibly more suitable disciplines, may be left unexplored. In the non-medical home, it can be a totally new and foreign concept and the candidate is apt to be disappointed because of his or her lack of awareness of requirements other than academic ones.

Selection at school

Schools vary in their expertise in spotting likely medical candidates and in their ability to give advice and guidance leading to successful entry. Most are aware by now of the regulations for gaining first MB exemption and also that the outcome of the choice between mathematics and biology-zoology as one of the courses to be studied has little or no bearing either at the time of application or later. Three A level courses are obligatory; four are sometimes followed, though this will not necessarily help in final assessment. The grades to be achieved vary from time to time. This year three Bs or two Bs and a C seem to be general requirements. These grades, however, are not enough, as many applicants and their parents have discovered.¹ There are several reasons why this is so.

Firstly, A and O level results are only probable indicators of ability; they depend too much on efficient coaching. Unfortunately they give no indication of the candidate's ability to *apply* information and general knowledge. Secondly, their value lessens as the course proceeds and is nil by the time the clinical stages are reached. Grades in compulsory and non-compulsory subjects are alike in this respect. Thirdly, there is sadly no difference in A level passes between successful and unsuccessful candidates.

What then, you and the schools may ask, helps the candidate to make the grade? "Non-academic assets" are important.

More attention should be given to taking part in extra-curricular activities at school—in particular, gaining experience in medically orientated work. Such experience is of great value both immediately and once clinical studies have started. Red Cross classes and nursing, auxiliary nursing, hospital portering, work with mentally or physically handicapped or geriatric patients, or work in a hospital laboratory all give the school leaver some insight into the problems to be faced and met later on. On an UCCA (Universities' Central Council on Admissions) form such activities gladden the heart of the selector as they indicate that the applicant has made an attempt to understand the practicalities of his or her chosen career. Head pupils impress, as do musicians, competent athletes, and games players.

Selection of medical school by school and candidates

Recently applicants have been presented with a choice between the traditional medical school, with preclinical and clinical studies fairly clearly demarcated, and the new schools offering an integrated course right from the start. Some candidates will obviously feel drawn or be guided to one type or the other or at least to give one or the other as first preference. Applicants will find already successful candidates a source of advice on where to apply and will probably discover from them that certain aspects of what any medical course has to offer are of considerable importance. These aspects include (a) the attraction of personal interest at interview, especially if a faculty interview is given; (b) class size, teaching programmes, and material available; (c) the clinical curriculum and the availability of options; and (d) the reputation of the school, its location, and any financial inducements offered.

Selection of applicants by medical school

By this stage the information on the UCCA form is available, and more evidence of those hard-to-define "invisible assets"

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will be sought at interview. These include (a) emotional maturity, the presence of which will often swing the balance in favour of a less academically well-qualified candidate or a pre-A-level candidate over a post-A-level applicant; (b) vocational motivation, which may be lacking in the candidate who sees a sure job and a salary more certain in medicine than in natural science; (c) sound judgment and innate kindness; (d) a genuine sense of obligation to the community to stay the course that it is funding.

After the interviews the selector should possess the necessary information to pick as the most desirable candidates those who have the academic ability and determination to finish the course. It is hard to insure against possible wastage after qualification, but this is less likely to occur if the above criteria are met. Some medical schools attempt to forecast wastage by applying psychological tests at interview, but so far no conclusive evidence has emerged from them.

By now, Scrutator, you may feel that I have been rather discouraging about your remarks, particularly those on A level

passes, and about similar remarks in letters to the press about rejections from medical schools and the numerous personal criticisms every selector has to face. But I would beg you and parents and the schools to put A level passes in their proper perspective. High grades at A level do not necessarily equate with passes in professional examinations later, and they certainly do not equate with higher grades in these examinations. Much more information on candidates is needed, and I hope I have given you some indication of what one selector at any rate hopes to receive.

References

- ¹ Scrutator, *British Medical Journal*, 1976, **2**, 711.
- ² Barker, V B, *Medical Education*, 1976, **10**, 514.

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Aspects of Student Health

Sports medicine and the student

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Many of today's top-level sportsmen are students. There are obvious advantages in living on the campus with good facilities in a sympathetic environment and without the worries attaching to employment. There are, however, problems specifically affecting students, and the management of these may be important in the management of their particular sports medical problems.

Nobody can pretend any longer that it is possible to combine intensive study or a responsible job with international sport. The realist will adjust his life style so as to reach a reasonable level in both sport and work or, if he is outstanding, may favour one and deliberately adjust the other from time to time according to circumstances. For example, examinations make an enormous demand on one's reserves of concentration and mental energy, and nobody can cope with flat-out sport at the same time. Failure to recognise this leads to failure in exams, or sport, or suboptimal achievement in both. The mature student will plan his season of sport together with all his other commitments so as to cope mentally and physically. Unfortunately, coaches often fail to understand this, and their interpretation of "mens sana in corpore sano" implies flat-out effort in both.

The student has logistic problems if he is to reach the highest levels in sport. Training two or even three times a day makes the trivia of washing and drying kit burdensome, especially in bad weather or in poor accommodation. Details such as transport to and from sports facilities and fitting in with lectures may become a preoccupation. The necessary diet of up to 5000

calories a day may impose a financial burden, especially on a student grant.

The sum of all these problems may easily enhance the chronic anxiety state that most athletes endure. This simply triggers the vicious circle of anxiety, leading to loss of sleep and concentration and a further deterioration in performance. So it is essential that the problems of the student sportsman should be recognised for what they are by his tutors and medical officers. Possibly the student's athletic staleness, recognisable as mild depression, may lead to poor examination results, and the answer is not antidepressant treatment but adjusting the sporting programme.

I have to mention these points because some students present with symptoms related to sport and respond disappointingly to routine physical treatment. It is only when the doctor elucidates the underlying psychological stresses that they make progress.

Sports injuries

I do not propose to discuss serious trauma or fractures as these are usually adequately dealt with along first-aid and casualty lines. Most sports injuries affect the soft tissues, and in serious sportsmen overuse injuries may predominate.

In this context, the doctor should be aware of the demands of modern training. Many sportsmen use heavy-weight training and this carries a considerable risk of injury, usually due to careless techniques or mishaps. While top runners may train over 160 km a week, a surprising number of college runners exceed 65 or 80 km and, while they may think little of this achievement, the doctor should remember that this exceeds the norm for world record holders merely a generation ago, and provides considerable scope for overuse injuries. The same pattern is seen in all other sports—for instance, playing squash or badminton for three or four hours at a time; practising 30 or 40 high-jump take-offs in one session; or swimming for up to five or even six hours a day.

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