National Poisons Information Service—Guy's Hospital Guidelines for users

- (1) The caller should be ready to give the name of the suspected agent(s) involved as accurately as possible. Since the manufacturer's name or other details may also be needed, container(s) should, if possible, be at hand. In addition the following information is usually required.
 - (a) the patient's name and age
 - (b) time of exposure
 - (c) any apparent signs or symptoms
 - (d) treatment already given
- (2) Patients or relatives should not be asked to telephone the information service since inquiries from the general public cannot be answered. The emergency information service answers inquiries only from hospitals, general practitioners, and other emergency services.
- (3) The caller may subsequently receive a follow up questionnaire requesting information regarding the outcome of the poisoning. These should be filled in and returned to the information service as they are essential to permit the compilation of acute poisoning in man, especially where new or uncommon compounds are involved.
- (4) Direct telephone lines are available to the poisons information service (01-635 9191). Only callers requiring information on the emergency treatment of poisoning should use this number. All other inquiries, including requests for less urgent information and laboratory requests, should be made through the Guy's Hospital switchboard (01-407 7600), extensions 4001-4003).

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This is the concluding article of part 1 of the ABC of Poisoning. Part 1 will be published as a book early next year, and part 2 will appear in the BMJ next year.

Medical Education

Audit of admission to medical school: III—Applicants' perceptions and proposals for change

I C McMANUS, P RICHARDS

Abstract

Applicants to St Mary's Hospital Medical School were asked to comment freely on the process of selection. They were particularly concerned about the role of interviews, excessive emphasis on academic achievement, the problem of rank-ordering choices on the UCCA form, and possible biases in selection. These concerns and the results of our survey suggest that candidates should not be asked to rank their choices in order of preference, that UCCA applications for medicine should be subject to an early closing date, that as many applicants as possible should be interviewed, that applicants should be encouraged to apply after taking A levels, that educational opportunity should be taken into account in assessing A level grades, and that mature students should be encouraged, not least by providing mandatory awards for a second degree in medicine.

"The medical profession seems to be biased towards the very academic, probably male student, who has a long family history in medicine and a public school education. They seem in my experience less interested in your character and whether you have the right temperament to make a good doctor and have the ability to get on with and communicate with a wide range of people, especially in a difficult situation."—APPLICANT TO ST MARY'S HOSPITAL MEDICAL SCHOOL, 1980.

Applicants to St Mary's Hospital Medical School in 1980-1 were invited to enter "any comments or criticisms of the medical school selection process" on a blank sheet of the questionnaire (Q1), which was sent on receipt of the UCCA application.¹²

We consider here applicants' criticisms of the admission system, and make suggestions for change in the light of those criticisms and of the findings of our survey.

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Applicants' comments

Comments were made about the application process by 54% of applicants who completed Q1.

Excessive emphasis on academic achievement—Two hundred and

five applicants considered that too much weight was given to academic achievement, although some admitted that they saw no practical alternative. Reservations were expressed on the grounds that non-academic factors were at least as important in determining suitability for a medical career, and that academic ability was not assessed on a common standard or with equal educational opportunity. Several applicants were concerned that interviews and offers might be based on inaccurate A level predictions from O level results.

Educational opportunity was felt to vary substantially in the quality of teaching, the constructiveness of the environment at school, and in the pressure put on pupils to achieve. Some applicants suggested that academic potential and motivation would be better assessed if students were not admitted under the age of 21, thus allowing greater maturity and opportunity for practical experience.

Interviews—Two hundred and six applicants expressed opinions about interviews, most asking for at least as much weight to be given to interview as to academic qualifications.

Our applicants saw interviews as providing a wider profile than was possible on a UCCA form, enabling applicants to become better informed about schools and to put their own case. Feeling on the latter point was strong: one person commented "how embittered an applicant can feel when five rejections come through the post without any contact with the schools"; another, who had twice been rejected by all his five choices without interview, wrote "I am not saying that I should have been accepted but I am saying that I should have been given the chance to be assessed at interview before rejection or acceptance."

Several applicants wished that interviews were more discriminating, and a few considered them unreliable because they were unconducive to truthful speaking, too stressful, too formal, too short, and raised false hopes. Some proposed an interview with two or three different panels to obtain fairer assessment by a wider spectrum of opinion; others suggested a longer period of assessment with practical tests of initiative and the ability "to test more thoroughly the candidates' practical ability to handle practical problems."

Pressure to state an order of preference among medical schools—One hundred and seventy one applicants were concerned at the pressure they felt on them to state an order of preference, partly because they felt unable to make a sufficiently informed decision and partly because they suspected that their chance of acceptance depended on strategy. Prospectuses were felt to give too little and biased information; "alternative" prospectuses written by students themselves or by outsiders would have been welcomed. Difficulties in making arrangements to visit medical schools were mentioned and the high cost to many applicants of visiting five (or more) schools was emphasised. Applicants turned to their teachers, to their family doctor, and to student friends for advice, which they felt was often neither sufficiently well informed nor impartial. They had no way of discovering whether competition for entry differed substantially between medical schools, nor were they sure which schools would expect to be put first. One applicant described deciding an order of preference as "the greatest nightmare."

Bias in selection—Misgivings were expressed that bias might arise from the influence of social background, private sector education, ill informed confidential reports, and retaking A levels to achieve better grades.

Seventy three respondents were concerned that doctors' relatives received preferential consideration, although a few suggested that doctors' relatives should be favoured because of their insight into the demands of the job.

Several applicants were worried that the teacher responsible for the confidential report had insufficient personal knowledge of them. Several applicants suspected that late applicants were at a disadvantage and pointed out that this is not always the fault of the applicant. Two applicants voiced fears of discrimination against women. One applicant was concerned about the possibility of racial discrimination.

Finally, tiresome though questionnaires may be, one respondent was kind enough to comment "It's been quite fun filling in this questionnaire; sort of relaxing and as though you are interested in me . . ."; then, presumably referring to the previous year, he continued "too bad that I did not get accepted by St Mary's."

Proposals for change

Order of preference—It is widely believed and probably correct that in general the best chance of an offer is from an applicant's first choice. Further, it is widely suspected but difficult to prove or disprove that some medical schools give scant consideration to applicants who did not place them first (or second to Oxbridge). If, as is likely, all schools pay some attention to the candidates's stated preference it is theoretically possible for an average candidate who gives the first one or two preferences to schools which have a high ratio of applicants to places to be rejected by those schools and then to miss out at lower preferences at which, given higher preference, he or she might have been successful (see Addendum). Our applicants were strongly in favour of a system of equal preference. In its own survey UCCA also found evidence that applicants are dissatisfied with the need to place selections in order of preference.³

The only way which we can see of resolving the difficulty is to insist that applications should be listed in alphabetical order.

Timing of application—The sequential system of receipt of applications over three months prejudices the chances of late applicants. We recommend that applications to read medicine in the UK should be submitted before 15 October, as are Oxbridge applications.

Interviewing—Our survey indicates that interviews emphasise the non-academic abilities of applicants. Whatever the arguments for and against interview as a useful means of selection, many applicants clearly expressed their view in favour of the interview as a part of natural justice in representing their own case for selection. We submit that this is sufficient reason in itself for including an interview as part of selection. Selection might be felt to be fairer if the limited quantity of information available on the UCCA form and in a 15 minute interview were augmented by asking applicants to complete some form of questionnaire, thus allowing candidates to give a broader picture of themselves. The logistics of such a system would, however, be formidable.

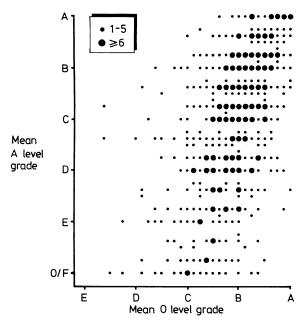
Criteria for selection—There are currently so many well qualified people seeking admission to medical school that it seems inevitable that widely talented individuals who can also achieve high academic standard at A level are the ones who gain admission. There is no evidence that those who are rejected would be more suitable or more deserving of an opportunity to become doctors than those accepted. Clearly every effort should be made to take into account educational opportunity when setting A level targets and assessing results.

Ideally, O level achievement should not be used to predict A level performance. We found a correlation of O and A level achievement of 0.59 (such a result being typical⁴), indicating that only 35% of the variance in A levels is predicted in terms of variance in O levels (see figure), and hence an individual's A level grades cannot accurately be predicted from an individual's O level grades, individuals with average grades of A/B at A level gaining a wide range of grades at O level. The only remedy is to insist that applicants should take A levels before applying for entry to medical school. If it were possible for all entrants to find employment during a year off between school and university we should strongly support such an arrangement, which would both remove speculation about A level grades and ensure greater experience and maturity.

The rigid use of specific A level grades as the final arbiter of acceptance was heavily criticised by applicants on the grounds that differences between grades were often so small as to have no real meaning; that the standard of examinations set by the different school examining bodies were not uniform; that different subjects were not strictly comparable; that age and educational opportunity were not properly taken into account; and that the A level performance of those who did not receive conditional offers was adversely affected by such a serious blow to their self confidence and motivation. We suspect that there is force in all these criticisms. The only remedy is that selection should take account of as many attributes as possible, the academic target set being sufficient only to ensure no

academic difficulty with the medical course rather than being used as a competitive discriminant.

Many problems of assessing motivation and ability would be resolved if a greater proportion of entrants applied after a first degree course (in a manner akin to US graduate school), or after



The mean A level grade of applicants in relation to mean O level grade, small dots indicating from one to five candidates and large dots indicating six or more candidates.

work experience. A sine qua non of regarding medical school as a graduate school is that local education authority grants should be available for the whole five or six years of a second (medical) degree course, and not as at present just as a discretionary award confined to the clinical years.

We thank Professor A Breathnach, Mr K Lockyer, and Mr R W Wakeford for criticising earlier drafts, and all the interviewers who made this survey possible—also many other people for their help: Mrs J Yap for producing the questionnaires; Mrs M Harper and Mrs R Boyd for distributing questionnaires and organising interviewees; Mr M J Hiscock and the Universities Central Council on Admissions for providing us with final destinations of applicants; the various A level boards for permission to examine A level results, and Mr N Wilson and Mr C Gurney for their help in that task; Dr P Pal, Mr M Datko, Mr L Nodes, and Mr P Taylor and the staff of Bedford College Computing Service for help with computing; and last, but not least, the many applicants who completed our questionnaires. A more extensive account of the results will be presented as an MD thesis to the University of London by ICM.

Addendum

We have found (see table) that the ratio of applicants to places varies substantially over the United Kingdom. While it would be a gross oversimplification to assume that it was necessarily easier to gain admission to a university with relatively few applications such as Cambridge—than to a medical school with a relatively large number—such as University College—nevertheless, when both the minimum target and the relative number of applications are taken into account the chance of admission may be higher at some medical schools than at others.

Number of applicants and acceptance to all British medical schools for admission in October

	Applicants to school			Acceptances by school			Applicants
•	Male	Female	Total	Male	Female	Total	per place at school
Cambridge	429	303	732	130	82	212	3.5
Oxford	NA	NA	462	56	45	101	4.6
Charing Cross	1854	1123	2977	65	55	120	24.8
Guy's	727	360	1087	61	44	105	10.4
King's	998	691	1689	48	35	83	20.3
The London	NA	NA	1571	64	41	105	15.0
The Middlesex	956	624	1580	52	38	91	17.4
Royal Free	1240	1133	2373	55	53	108	21.9
St Bartholomew's	1067	630	1717	76	54	130	13.2
St George's	794	562	1356	65	39	104	13.0
St Mary's	922	549	1471	62	38	100	14.7
St Thomas's	674	379	1053	55	34	89	11.8
University College	1562	1159	2721	49	53	102	26.7
Westminster	773	502	1275	58	28	86	14.8
Birmingham	1107	721	1828	109	49	158	11.6
Bristol	NA	NA	1135	55	78	133	8.5
Cardiff	NA	NA	1465	93	57	150	9.8
Leeds	1210	774	1984	98	62	160	12.4
Leicester	NA	NA	2244	50	50	100	22.4
Liverpool	958	652	1610	93	57	150	10.7
Manchester	1350	965	2315	114	86	200	11.6
Newcastle	1238	885	2123	72	59	131	16.2
Nottingham	1138	842	2030	75	55	130	15.6
Sheffield	1210	897	2107	68	83	151	14.0
Southampton	1086	682	1768	71	46	117	15.1
Aberdeen	NA	NA	1258	67	65	132	9.5
Belfast	455	211	666	96	55	151	4.4
Dundee	678	503	1181	64	48	112	10.5
Edinburgh	889	628	1517	99	84	183	8.3
Glasgow	805	463	1268	121	97	218	5.8
St Andrews	476	289	765	48	35	83	9.2
Total			49 328			3995	12-3

NA = Figures not available

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Is there any effective treatment for spasmodic torticollis and if not have any "fringe medicine" operators anything to offer? Is there any association devoted to research into it and the alleviation of the isolation of sufferers from this curious condition?

Spasmodic torticollis is notoriously difficult to treat. All forms of treatment have to be assessed against a known spontaneous remission rate of 20-30%, which tends to occur within the first years and is unpredictable. The condition is a form of segmental dystonia due to a chemical disorder involving dopamine in the striatum. The condition may be usefully modified by dopamine blocking agents, including haloperidol, phenothiazine drugs, and pimozide. The cost of so doing, however, is the production of drug induced parkinsonism, tardive dyskinesia, and akathisia in a substantial proportion of patients. This cost sometimes

outweighs the benefit of treatment. The peripheral section of the sternomastoid or trapezius muscle is of shortlived value. Claims are made for stereotaxic lesions in the basal ganglia and also for bilateral section of the upper cervical roots. Success is met with both types of operation but is by no means evident in all subjects. Both are considerable surgical undertakings, which are justified in a few patients in whom the condition is totally disabling. Relaxation therapy, hypnosis, and acupuncture no doubt have their advocates, but in a primarily organic disorder there is no shred of evidence that they have any general application or value.

Several associations are concerned with basal ganglia disease, notably the Parkinson's Disease Society, but, to the best of my knowledge, there is no specific association devoted to spasmodic torticollis.—JOHN PEARCE, consultant neurologist, Hull.