Medical careers in pathology, 1977

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SUMMARY A survey has been made, mainly covering the second half of 1977, of career grade posts and senior training posts in pathology in the United Kingdom. The survey included all disciplines of pathology and all types of employment—National Health Service, medical school, and many others. The survey also examined the number of applicants for advertised posts and the number of posts left vacant. There were variations between disciplines and between regions; microbiology and Northern Ireland had most failures in filling posts. Overall about 3% of career grade posts, and 15% of training grade posts, were left unfilled.

An earlier survey (Baron, 1974) investigated the pattern of appointments at senior registrar level and above, and the equivalent in medical schools, for both medical and science graduates in pathology in the United Kingdom for 1972-73. 'Pathology' is used in the normal UK sense, including morbid anatomy/histopathology, medical microbiology, haematology, chemical pathology, immunology, experimental pathology, and forensic pathology. With the reorganisation of the National Health Service (NHS), the altered national financial circumstances leading to a halt in expansion of job opportunities in both the NHS and universities, and the changing possibilities for doctors for both emigration and immigration, I thought it timely to repeat the survey. It has been confined this time to medical posts, but I have now included more detailed information on vacancies and on applications for advertised posts. This is not an investigation into how many pathologists there ought to be!

Comment

VALIDITY OF INFORMATION

The figures were collected over a period of about six months, representing a variety of primary and secondary sources, as indicated in the notes to the tables, and wherever possible using more than one source (which almost always disagreed). The original information for job applications in Table 2:II was incomplete, as not all medical schools were able to provide information on their applications, and, in addition, an unascertained number of senior medical school posts are filled by invitation or by

internal promotion. The figures for existing vacant senior medical school appointments are also not very reliable.

An investigation is no better than its original observations. Errors in these figures, apart from the author's errors, are of three types:

- 1 Incorrect primary information: as far as possible more than one source was used for every item.
- 2 Omissions: these are likely to have been, for example, haematologists working in departments of medicine or immunologists in departments of rheumatology.
- 3 Overlap: a pathologist with mixed duties and/or income might, for example, have been included under both NHS and medical schools, or under research funding and medical schools, or under Public Health Laboratory Service and NHS.

Also the situation is continually changing.

GRADING

Terminology is contractually standard in the NHS but not in other employment: for example, in some medical schools those in their first training post in pathology are called lecturers, while in others lecturers have consultant equivalence. I have tried to equate all non-NHS posts either to consultant (and have had to include therein SHMO and medical assistant) or to senior registrar, on information provided. One problem arises because in the NHS, except for the very small number (8% of career grade) of SHMOs and medical assistants, you are either a trainee or in theory a fully independent agent (all consultants are equal, but some consultants are more equal than others). This does not necessarily happen in many other professions (partner/senior partner), and certainly not in clinical medical schools.

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Table 1 Posts held by medical pathologists in the United Kingdom¹

I NHS appointments

Grade	Histopathology ⁴	Medical microbiology ⁵	Chemical pathology	Haematology ⁶	Immunology	General pathology ⁷
Career ⁸						
In post	510	205	140	395	15	25
Vacancies	10	11	10	12	0	0
Training ⁹						
In post	80	50	40	85	5	0
Vacancies	19	16	16	13	2	0

II Medical school appointments

Grade	Histopathology ⁴	Medical microbiology ⁵	Chemical pathology	Haematology ⁶	Immunology	Experimental pathology ¹⁰
Career ⁸						
In post	205	105	60	55	25	20
Vacancies	3	2	3	2	1	—
Training ⁹						
In post	110	40	15	35	5	3
Vacancies	12	10	4	2	1	0

III Other appointments

Grade	Public Health Laboratory Service ¹³	Armed forces and other Government ¹⁴	Research institutes and research funding ¹⁴	Industry ¹⁴	Whole-time private practice ¹⁷
Career ¹¹	120	35	40	40	15
Training ¹³	20	15	60	10	0

IV Summary

Grade	Histopathology	Medical microbiology	Chemical pathology	Haematology	Immunology	Unclassified ¹⁸	Total
Career	715	430	200	450	40	175	2010
Training	190	100	55	120	10	90	575

Notes

¹England and Wales; Scotland; Northern Ireland. The figures in these tables are for 1977, and are for persons, whether whole-time or part-time, not for whole-time-equivalents.

²Consultant; SHMO; medical assistant. Derived mainly from information provided by DHSS, Scottish Home and Health Department, DHSS (Northern Ireland).

³Senior registrar. Derived mainly from a survey by Dr Joan Zilva on behalf of the Royal College of Pathologists.

⁴Includes neuropathology and forensic pathology.

⁵Includes virology.

⁶Includes blood transfusion.

⁷Implies a contract to practise two or more disciplines of pathology.

⁸Professor, reader, senior lecturer, lecturer-with-consultant-status or equivalent. All posts, whether or not with honorary NHS contracts. Derived from information provided by heads of departments and chairmen of Divisions of Pathology in medical schools, supplemented from medical school prospectuses and from the Commonwealth Universities Yearbook. Vacancies are an extrapolated estimate from information from two-thirds of the medical schools.

⁹Lecturer, usually (but not always) with senior registrar status. Information derived as for 8.

¹⁰Includes cancer research, etc.

^{11/13}These correspond as nearly as possible to the equivalent grades in Tables I and II above (*, ⁸/₃, ⁹).

¹²Derived from information provided by the director.

¹⁴Derived from information provided by the respective directors of pathology for the Army, Royal Navy, and Royal Air Force; figures for DHSS and other Government staff collected by the DHSS.

¹⁵Derived from information provided by the Medical Research Council, Cancer Research Campaign, and Imperial Cancer Research Fund, with an estimate for others working on local endowments and other grants.

¹⁶An estimate. Derived from information provided by Dr A. D. Dayan and Dr B. A. L. Hurn (Wellcome Research Laboratories).

¹⁷An estimate. Derived from information provided by Dr Jean Shanks.

¹⁸Combines 7 + 10 + 14 + 15 + 16 + 17.

Table 2 Applications for career-grade posts¹I NHS pathology appointments²

	Histopathology	Medical microbiology	Chemical pathology	Haematology	Immunology
Annual number of posts advertised	34	25	13	32	1
Annual number of posts unfilled	3	9	2	4	0
Mean number of applications per post	5	2	3	3	5

II Medical school pathology appointments³

	Histopathology	Medical microbiology	Chemical pathology	Haematology	Immunology
Annual number of posts advertised	23	17	11	6	3
Annual number of posts unfilled	8	7	3	2	2
Mean number of applications per post	3	2	4.5	3.5	4

III Comparison of some different NHS specialities⁴

	Obstetrics and gynaecology	Adult mental illness	Histopathology	Anaesthetics	All hospital specialities
Mean number of applications per post	12	5.5	4.5	2.5	5
Available candidates ⁵	6	3.5	2	2	3.5
Percentage of advertised posts unfilled	7	15	23	32	19

Notes

¹Grade and subject classification as in Table 1; for the NHS, only consultants have been included.

²Information made available for 1975-77 by the Royal College of Pathologists for England, Wales, and Northern Ireland; and by the Scottish Home and Health Department.

³Extrapolated from information provided for 1976-77 by all London undergraduate (12) and postgraduate schools and for 10 schools (out of 18) outside London.

⁴Information obtained from a sample survey (England and Wales) by the DHSS for 1976-77.

⁵Allowing for applications by the same candidate for several posts at about the same time.

There the basic career grade appointment is usually senior lecturer without full independence (45% of the career grade appointments), and the abler and more ambitious go on to reader + professor. Perhaps in the NHS we should have specialists (senior lecturer equivalent) as a necessary preliminary to a consultant appointment, but many will not become consultants. This grade might include those senior registrars who have finished training, and those doing purely service work without receiving training; and could take in those consultant appointments that are associated with competent service work without advancing the subject, personally receiving 'post-accreditation' training, or being consulted by outside hospitals. Specialist posts do not have to carry a full complement of junior staff. Some might be happier if the grades were called consultant/senior consultant.

CHANGES SINCE THE EARLIER SURVEY

The previous NHS information was for 1973. Unfortunately, on checking the sources an error has been found in one item originally provided—'general pathology' should have had 370 in post. The total career grade establishment has increased, therefore, from about 1100 to 1300 with an overall slight decrease in vacancies.

The general pathology section has almost disappeared, and these pathologists appear to have been reclassified mainly as histopathologists or as haematologists. The virtual disappearance of the title general pathologist has not meant that the duties of the former holders of the posts, now classified as single-discipline consultants, have altered much. There are still, and no doubt will be for many years, small laboratories or isolated laboratories where a pathologist has to act in more than one discipline. What the training, and possibly the examination qualifications, should be for such pathologists is the concern of the Royal College of Pathologists.

The number of trainee posts has increased all round, with a disappearance of senior registrars in general pathology. I have no reliable information on past or present numbers of registrars.

The previous medical school information was for 1972. As the present information excludes non-medical graduates, the total increase in medical career staff from 438 to 470 (8%) may have a scientist parallel. The number of microbiologists is unchanged, while other disciplines show similar proportional increases. In the training grades there was an overall slight decrease in medical staff from 226 to 212, and although there is known to have been

an increase in non-medical lecturers in chemical pathology and microbiology, this fall-off in medical academic pathology entrants must be taken seriously. It must be noted also that in the five-year period 1972 to 1977 the relevant annual number of medical students increased from about 2800 to 3500, namely, by 25%.

OTHER APPOINTMENTS

Except for the Public Health Laboratory Service, which is completely microbiology, these appointments have not been divided into disciplines. However, they must not be overlooked in any overall consideration of pathology careers. Most of those in career grade posts in industry, for example, will have come from senior registrar or lecturer appointments; most of those on (short-term) training grade research funding will be seeking posts in medical schools or the NHS.

VACANT AND UNFILLED NHS APPOINTMENTS

There are existing pathology consultant vacancies (3% of all disciplines combined; or 7% if posts held by locums, which in this survey have otherwise been counted as occupied, are included) and there are juniors apparently having completed training and able to fill these posts. My information is that most of these posts remain unfilled despite repeated advertisement and are often then frozen. Apparent discrepancies between vacancies (Table 1:I) and posts unfilled at advertisement (Table 2:II) are accounted for mainly by abolition of consultant posts that have been impossible to fill, or by these posts being occupied by locums who may often be the just-retired consultant. Is there something wrong with the posts, or with the senior registrars, and can anything be done about it? The patients of Coketown are as entitled to pathology expertise as are those of Barchester. Or is the fault the career-distorting system of payment of senior registrars where, by the amassing of Units of Medical Time (doctors' professional euphemism for overtime pay), an appointment to a consultant post can mean a serious loss of income? Is it too late to hope that we do not compound the felony by introducing UMTs for consultants, but instead introduce an equitable inclusive salary scheme for senior registrars?

Between the disciplines, the situation is best for histopathology and worst for microbiology, both in respect of proportion of advertised posts unfilled, and for number of applicants for these posts. Our situation would be helped by salary inducements for unpopular disciplines and unpopular locations: a microbiologist at Coketown would have two causes for inducement payments above an obstetrician at Barchester.

The overall vacancy rate for senior registrar appointments is about 15%, and this figure is far too high. I must leave it to others to calculate, on the basis of the figures provided in this paper and other information, and making appropriate allowances for change of career, emigration and immigration, careers of women doctors, etc, what numbers of senior registrars are actually required for training for consultant posts. It may even be that the establishment for training purposes, though it should be higher than the numbers of senior registrars now in post, could be lower than the present establishment. If this were so, it would imply that the remaining jobs are largely needed for service work, and they should therefore be replaced by career grade posts—possibly specialists? (It would be interesting to see a comparison for, say, surgery.) Whatever the conclusion on these posts, the vacancy rate implies that not enough suitable candidates are available to go into them. This should prompt an investigation into the numbers and eligibility of pathology registrars, and brings up again the financial (and possibly other) unattractiveness of pathology as a career at all grades.

COMPARISON WITH OTHER NHS SPECIALTIES

The survey (Department of Health and Social Security, 1978) that was the basis for Table 2:III was derived from only a small sample of posts in England and Wales but nevertheless confirms both popular impressions and the specific pathology information from other sources in Table 2:I. Taking all disciplines together, there are just enough applicants for consultant pathology posts, though not all applicants are suitable.

VACANT AND UNFILLED MEDICAL SCHOOL APPOINTMENTS

As in the NHS, there are existing vacant career grade posts (about 2% of all disciplines combined) and lecturers available; are the posts or the lecturers not suitable? It is probably the latter, as my information is that many of the vacancies are filled by repeated advertisement, say six months later; this is different from the history of many NHS consultant vacancies. The general pattern regarding advertised posts is similar to that in the NHS, except for the relatively limited opportunities in academic haematology; the unfavourable situation of medical microbiology in respect of applications is again obvious. It must not be forgotten that movement between the NHS ladder and the medical school ladder is free at all grades. In all disciplines of pathology, on promotion some senior registrars become senior lecturers and some lecturers become

consultants. Comparison of Tables 2:I and 2:II does not show any major difference in attractiveness of career grade posts between the NHS and medical schools. The overall figure of 14% vacant lectureships is similar to that of vacant senior registrarships but particularly serious when the continual increase in student numbers is noted; these vacancies also are linked with the availability of registrars for promotion. It would be interesting to see the equivalent figures for lecturers and senior lecturers in, say, medicine.

IS LONDON, OR ELSEWHERE, A SPECIAL PROBLEM?

Only limited information is available. For consultants, Scotland has a lower proportion of unfilled posts than does the rest of the UK. For senior registrars, there is evidence that the Trent Region and Northern Ireland have a worryingly high proportion of vacancies, while the Oxford Region and the Thames Regions are relatively better off; probably the majority of regions have few vacancies. Two problems have been studied for medical school appointments. For career appointments there seem to be relatively more applicants for all pathology posts in London than elsewhere, but the same proportion of unfilled posts. When histopathology staff alone are being considered, then based on an average 100 student entry per year, the average London school has 5 career grade and 2.5 lecturers, while outside London the equivalent figures are 5 career grade and 4 lecturers. Here is an argument for more senior registrars in London undergraduate teaching hospitals in comparison with those outside London.

JOB PROSPECTS

Registrars in pathology, whatever the discipline, on the basis of the information in this survey should feel

assured of a career grade appointment either by the NHS channel or by the medical school channel provided that they have the right training and qualifications. They cannot, of course, be guaranteed that this is in their first choice of location.

Those who are advertising posts may not have a large choice of suitable applicants and, in particular for senior registrars in 'unpopular' regions, may not at present be able to fill the post.

This survey would not have been possible without the cooperation of many individuals and organisations who replied to my many queries, and who are mentioned personally or collectively in the notes to the Tables. I wish to thank particularly Dr Joan Zilva (Royal College of Pathologists) and Dr Sheila Waiter (Department of Health and Social Security) for allowing me access to their data and for their comments and criticisms; the staff of the DHSS, the Scottish Home and Health Department, and the Northern Ireland Department of Health and Social Services for much assistance; and Miss Mary Ellis (Registrar, Royal Free Hospital School of Medicine) for her help.

The interpretation of the information, and the conclusions, are my own responsibility.

References

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