Preregistration house officers in general practice

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Abstract

***Objectives*—To obtain from house officers who had rotated through general practice in their preregistration year their views about their experience; and, separately, to compare the overall hours and type of work performed by hospital based and general practice based house officers.**

***Design*—Postal questionnaire; and self recording of working hours and duties during four consecutive weeks.**

***Setting*—Inner London teaching hospital and nearby general practice.**

***Participants*—28 preregistration house officers in general practice, 1981-91; and 12 preregistration house officers, four each in medicine, surgery, and general practice.**

***Results*—26 out of 28 questionnaires were returned (response rate 93%). Twelve respondents were following or thinking of following a career in general practice. Twenty five respondents were satisfied with the clinical and educational aspects of the general practice rotation and would recommend the rotation, and 25 thought four months was about the right length of time in general practice. With regard to hours and type of work performed, hospital based house officers worked on average 55·5 hours a week (excluding on call), with an average of 12·5 hours (22·5%) spent in clinical activities; general practice based house officers worked about 41 hours a week, of which 24 hours (58%) were in clinical activities. House officers in hospital received less than one hour's specific teaching a week; those in general practice received nearly three hours' a week.**

***Conclusions*—A preregistration rotation in general practice is a popular alternative to the hospital based rotation. Although this is a limited study, other medical schools should consider introducing general practice options for preregistration house officers.**

Introduction

The preregistration year after graduation from medical school has been a legal requirement since the Medical Act 1950. Traditionally, the preregistration year takes place in hospital, and the most common rotation is six months of medicine and six months of surgery.

The Medical Act 1978 made the creation of preregistration house jobs in general practice a possibility, and in 1987 the General Medical Council published a booklet on recommendations for general clinical training in which it stated that it wished "to encourage opportunities for acquiring experience in general practice during general medical training."[1] Several review articles have discussed preregistration training in general practice,[2-4] and the personal experience of one house officer has been described.[5]

In 1981 a preregistration rotation in general practice was introduced at St Mary's Hospital Medical School, allowing house officers to rotate four months each of medicine, surgery, and general practice. It was approved by London University, initially for three years, and evaluated.[6] Although 3056 preregistration house officers were in post in 1991 in England,[7] this is still the only established rotation in general practice, offering three places a year. The General Medical Council places great importance on the preregistration year, yet several studies have reported poor educational provision,[8,9] inappropriate duties,[10,11] excessive hours,[12] and discontent among house officers.[13]

I obtained from doctors who had rotated through general practice in their preregistration year their views about the rotation and drew conclusions about the value of such a scheme. I also compared the overall hours and type of work performed by hospital based and general practice based house officers.

Method

BACKGROUND

The practice is based in a health centre near St Mary's Hospital in inner London. In 1981 it had about 6000 registered patients and three partners, and in 1990 it had about 8000 patients and five partners (two part time). There is one practice nurse, a practice manager, a trainee general practitioner, and attached community nurses. Each house officer in the general practice house officer scheme works four months in the practice and four months each in medicine and surgery at St Mary's Hospital. All applicants are interviewed by the relevant hospital consultants and the supervising partner in the practice. Selection is based on merit, and no preference is given to candidates who favour general practice as a career.

The medical house officers work for general medical and cardiology firms, each with its own consultant and registrar and with patients on several wards throughout the hospital. The surgical house officers work for the academic surgical unit, based mainly on one ward, with a team including the professor of surgery, senior registrar, registrar, and senior house officers.

The general practice house officers hold seven surgeries a week, with an average of eight patients per surgery, and have one half day a week for home visits. There is one half day a week for tutorials and one half day for project work. The general practice house officers work in a similar way to trainee general practitioners, except that they cannot legally sign prescriptions. House officers can investigate, refer, and admit to hospital, but they are expected to discuss important changes in management with a partner before proceeding. There is an introductory programme for new doctors, in which they observe each partner in surgery and on visits, spend half a day with each attached nurse, and work on the reception desk.

The general practice house officers are given a consulting room and a car. Most live in the hospital residence for the general practice rotation, but on call duties can be from home if this is near the practice. The on call duty is one night in two on weekdays and one

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weekend in three. House officers often visit patients alone, but they are always on call with one of the partners, who screens the phone calls from patients and then delegates if appropriate. House officers do not visit alone children under one year of age. The practice sometimes uses a deputising service for visits after 11 pm.

FIRST PART OF STUDY

For the first part of the study I sent a questionnaire with accompanying letter in August 1993 to all house officers who had rotated through general practice in the first 10 years of the scheme (1981-91) and whose current address could be traced. To preserve confidentiality each questionnaire was identified by code number only. A repeat letter and questionnaire was sent four weeks later to non-respondents. The questionnaire asked for details about the respondent—such as age, sex, and career intentions—and about respondents' views of the rotation, with structured and free text questions.

SECOND PART OF STUDY

For the second part of the study I asked eight hospital based house officers (four in medicine, four in surgery) and four general practice based house officers to complete a time sheet for four consecutive weeks of their work. The periods chosen were "typical" months—that is, not during peak holiday periods or at the beginning or end of a rotation. This part of the study began in February 1991 and was completed by May 1994.

Each house officer was given a standardised form, which included definition of terms, and asked to record:

- Time of arrival at and departure from workplace
- Time spent in clinical activities—defined as clerking or talking to patients (or surgery times for the general practice house officer)—and associated activities, such as writing up case notes and ordering investigations
- Time spent on administration—defined as organising discharges and admissions, chasing and filing results, phone calls, recording for audit, and correspondence
- Time spent attending meetings (excluding ward rounds)
- Time spent learning in individual or group teaching sessions specifically intended for preregistration house officers
- Time spent on ward rounds (hospital house officers only)

The number of overall hours per week was taken as the total from the start to the end of the working day. Time taken in miscellaneous activities, such as meal and coffee breaks or travelling between wards or to patients' homes, was not recorded and was included in the overall working day. When a house officer was on call it was assumed that normal duties finished, and on call began, at 7 pm.

TABLE I—*Satisfaction of 26 preregistration house officers with rotation in general practice*

	Overall clinical experience	Relevance to medical career
Very satisfied	14	18
Satisfied	11	6
Neutral	1	1
Unsatisfied	0	1
Very unsatisfied	0	0

Results

Two of the 30 general practice house officers who had taken part in the general practice house officer scheme during 1981-91 were working abroad and could not be traced. Of the remaining 28 house officers who were sent questionnaires on their views of rotation in general practice, 26 returned their questionnaire (response rate 93% (87% of all 30 house officers)). The mean age of house officers at the beginning of the preregistration year was 23.6 years (range 22-26), and 14 house officers were men. At the time of the survey 12 house officers were already working or thinking of working in general practice. Other career choices were anaesthetics (three doctors), medicine (three), obstetrics and gynaecology (two), surgery (two), industrial medicine (two), and ophthalmology (one); one doctor was still undecided.

In response to a question on whether they thought four months' rotation in general practice was about the right length and, if not, how many months might be better, 25 house officers thought four months was right; the remaining house officer would have preferred six months. When asked if they would recommend the general practice rotation to a colleague 24 respondents said they would and two were not sure.

In response to the question, "Do you think having the general practice rotation on your curriculum vitae had any effect on being selected for subsequent jobs?" 13 of the respondents thought it had helped and 13 either thought that it had had no effect or were not sure. None thought that it had hindered job applications. When asked, "Have you ever regretted missing the four months in hospital?" 25 respondents said that they had not.

In response to a question asking respondents to select one of three statements that most closely reflected their own view of general practice rotation, six respondents thought that every house officer should have to rotate through general practice, 20 thought that house officers should have a choice of some jobs in the preregistration year that rotate through general practice, and none thought that general practice should not be part of preregistration training.

Table I shows the respondents' levels of satisfaction with overall clinical experience and perception of relevance to a career in medicine. Table II shows the questions and responses in the final part of the questionnaire, where respondents could comment in free text form about specific aspects of the rotation.

Table III shows the findings of the second part of the study, in which house officers were asked about their hours and workload.

Discussion

EFFECTS OF SCHEME ON PRACTICE

The general practice house officer scheme has operated at Lisson Grove Health Centre since 1981,

TABLE II—*Free text responses* of 26 preregistration house officers in general practice to four questions about value of rotation in general practice*

	No of house officers
"What do you think you gained most from the general practice rotation?"	
Insight into the relation between general practice and community service	23
Consultation skills	6
Insight into general practice-hospital interface	3
Decided to become a general practitioner	2
"What did you like most about the job?"	
Responsibility	6
Independence	6
Range of experience	4
Home visits	3
"What did you like least about the job?"	
Nights on call (particularly night visits to housing estates)	7
Feeling "out of my depth"	5
Isolation from peers	3
Being unable to sign prescriptions	3
Being unable to help with social problems	3
Being emotionally exhausted	2
"Do you think your ideas about general practice (and general practitioners) were changed by the job?"	
More appreciative of the work general practitioners do	5
More exhausting and demanding than expected	2
Back in hospital I am now more sympathetic to general practitioner referrals	2
I now realise the importance of keeping general practitioners informed about their patients	2

*Up to three answers were allowed for each question.

TABLE III—*Recordings on time sheets by 12 preregistration house officers, over four consecutive weeks, of hours worked in different activities (excluding on call)*

Activity	Average No of hours/week (%)
Medical house officers (n=4):	
Clinical	15·2 (27·9)
Administration	10·4 (19·2)
Meetings	0·6 (1·2)
Teaching	0
Ward rounds	14·7 (27·1)
Total hours	54·4
Surgical house officers (n=4):	
Clinical	9·9 (17·5)
Administration	17·4 (30·7)
Meetings	3·7 (6·5)
Teaching	0·9 (1·5)
Ward rounds	15·1 (26·7)
Total hours	56·6
General practitioner house officers (n=4):	
Clinical*	23·7 (58·1)
Administration	3·0 (7·2)
Meetings	2·8 (6·8)
Teaching	2·9 (7·1)
Home visits	3·0 (7·2)
Total hours	40·7

*Comprises work in surgery and home visits.

and by July 1994, 39 newly qualified doctors had passed through the practice. The presence of house officers is seen as a positive contribution to the practice. They are usually fresh, enthusiastic doctors who appreciate reasonable working hours with high levels of clinical contact with patients and more responsibility than in some hospital house jobs.

The rotation, however, adds a considerable strain to the practice. A new, inexperienced doctor arrives every four months. After five or more years of mainly hospital based training the house officers often have an organic rather than a whole person approach to patients. They may overinvestigate and prescribe for patients who have social or psychological problems. However, they usually adapt quickly to their new environment and make a positive contribution to the care of patients.

On average a house officer conducts unobserved about 750 consultations in four months, of which 7% are home visits. Despite over 20 000 consultations by the 30 house officers who rotated through the practice in the first 10 years of the scheme, only one patient complained to the family health services authority, and the complaint was resolved informally.

VIEWS ON ROTATION

Half of the respondents thought that having the general practice house officer rotation on their curriculum vitae had helped with getting subsequent jobs. If it did indeed help then this may be because the scheme is novel and interviewers were interested to hear about the scheme first hand.

Most respondents welcomed the insight the scheme gave them into how general practice and community services work together. One respondent replied, "Back in hospital, I am now more sympathetic to referrals and writing discharge letters back to general practitioners." They also liked the high degree of clinical responsibility and independence.

The difference in working environment and culture between hospitals and general practice can make the transition between jobs difficult. House officers coming to general practice as their first job were particularly anxious about returning to hospital for the next part of the rotation, mainly because they believed themselves to be behind their peers in basic hospital house officer skills such as putting up drips, taking blood, and interpreting *x* ray films. In contrast, house officers coming to general practice after a hospital job described their difficulty in adapting to a different pace of working. One doctor described the frustration of becoming confident in the hospital culture and of "having to start again in general practice knowing nothing."

The comments made about the most disliked part of the general practice rotation—for example, nights on call and feeling out of one's depth—would probably be made about any house job anywhere. The house officers' specific dislike was not being able to sign prescriptions, a restriction laid down in General Medical Council's guidelines on prescribing. Although house officers may write their own prescriptions, these have to be signed by a partner.

HOURS AND WORKLOAD

Subdividing a working day into different activities, as I have done in this study, may be subjective and not accurate. Activities such as clinical and administrative duties will blur into each other while activities such as the beginning and end of a ward round or a teaching session can be clearly defined. The time sheets were completed by the house officers, not by independent observers.

Ward rounds, surgeries, meetings, and teaching sessions are regular weekly events for house officers, and the times quoted for these on the time sheets were checked for accuracy by referring to the weekly timetable for each house officer. These points have to be remembered when comparing the number of hours worked in a week (excluding on call) by house officers based in hospitals and the number worked by house officers based in general practice (55·5 *v* 41 respectively) and the type of work performed in those hours (clinical work, 22·5% *v* 58% respectively).

Regarding educational content, the general practice house officers received nearly three hours' teaching a week. This consisted of a tutorial with the supervising partner and a group tutorial with another partner and the general practitioner trainee. The hospital based house officers in this survey, however, reported little individual or group teaching. Although an average of 14 hours a week was spent on ward rounds, which is the traditional place for teaching in hospital, ward rounds are not specifically intended for instruction for preregistration house officers.

An advantage of individual teaching is the opportunity for pastoral care and career guidance. Preregistration house officers have a demanding, responsible

Key messages

- The preregistration general practice rotation scheme at St Mary's Hospital, London, was started in 1981 but is still the only established rotation in Britain
- Doctors who rotated through the scheme in the first 10 years and responded to a questionnaire thought that all medical schools should offer rotations in general practice
- All but one of the respondents thought that four months in general practice was "about right" and did not miss the four months in hospital
- Further investigations of general practice rotation showed that general practice based house officers worked fewer hours than hospital based house officers but did more clinical work, received more individual teaching, and had more responsibility
- Other medical schools should consider introducing rotations in general practice

job, usually for the first time in their lives. They are exposed to sick or dying patients and to angry or bereaved relatives, and, when overworked, may make mistakes. During this year they also start applying for senior house officer rotations, which means making career choices. Junior doctors have higher rates of stress and depression than the general population.[14,15] The extent of pastoral care and career guidance was not surveyed, but evidence exists that house officers receive little career guidance in the hospital setting.[16]

CONCLUSION

The findings of the survey of the 26 doctors who had rotated through general practice in their preregistration year suggest that such a rotation is a popular and useful alternative to a hospital house job. The results of the second part of this study suggest that general practice house officers do more clinical work, work fewer hours a week, and receive more individual teaching specifically designed for the preregistration year than hospital based house officers.

The study was based on the only established preregistration rotation in general practice in Britain and on one hospital and one general practice, and conclusions must therefore be guarded. But the scheme at St Mary's Hospital Medical School is considered a success, and other medical schools and their local practices may wish to consider offering similar rotations.

I thank my partners, Professor Brian Jarman, Drs Andrew Elder, Sally Taylor, and Neville Purssell; Dr Lesley Morrison; Anne Fleissig; and Dr John Watson.

For administrative reasons Lisson Grove Health Centre is soon to withdraw from the rotation scheme, but another practice in the area will soon join the scheme with St Mary's Hospital. The medical school is exploring the possibility of expanding the scheme to include more places for house officers.

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A PATIENT WHO CHANGED OUR PRACTICE

Weekends are not for routine cases

Cockayne syndrome is a rare, worldwide, autosomal recessive condition.[1,2] It presents most commonly in childhood as a progressive failure of growth and development. Few patients exceed 20 kg in weight or 115 cm in height. Typically the syndrome produces a thin, dwarfed child with deep set eyes, prominent teeth, and a narrow receding chin. The skin is dry, scaly, highly photosensitive, and seems prematurely aged. Neurological impairment is universal owing to generalised brain atrophy. These children are mentally retarded with impaired or absent speech. Mobility is diminished because of a combination of spasticity, ataxia, and limb contractures. Convulsions occur in 5-10% of patients.

Increasing visual loss is expected because of ophthalmic pathology and over half the patients have sensorineural deafness. Dental treatment for carious teeth is often necessary. The mandible and oral cavity are small, but the permanent teeth are normal size and these seem inappropriately large. This restricts the view at laryngoscopy making intubation more difficult.[3] Gastro-oesophageal reflux and recurrent vomiting have been noted in the severely neurologically impaired patients.

The mean age of death is 12 years. Some, considered to be mosaics, survive into the late second or third decade. A much poorer prognosis associated with severe Cockayne syndrome is believed to be an inherited mutation of the genes responsible for DNA repair. A diagnostic test is available and is performed on a skin biopsy specimen. Current treatment for patients with Cockayne's syndrome is purely supportive.

C was a 19 year old with Cockayne syndrome who weighed about the same as a 5 year old. The lad was already deaf and blind from this variant of progeria. He had been listed for a Nissen fundoplication for intractable vomiting and concomitant wasting. The operation was due to take place over a weekend as the surgeon had been unable to place him on a routine list during the week. Preoperative assessment showed moderate mouth opening but the patient was unable to cooperate fully and so the assessment was limited and as it turned out misleading.

As we started anaesthesia it proved impossible, as a result of temporomandibular fusion which had not been picked up preoperatively, to open the mouth wide enough to secure a view of anything besides the uvula and epiglottis. What I had interpreted on the ward as mouth opening was in fact C just baring his teeth at his mother's behest. The airway could not be visualised by direct laryngoscopy. Desaturation supervened before paralysis wore off which is well known to occur in children. Oxygenation could not be maintained by mask and airway. The assistant suggested a laryngeal mask and this was quickly and safely inserted. The airway was safeguarded and the patient turned pink again. The surgeon used a bronchoscope to view the larynx and facilitate intubation. The operation was uneventful.

This patient has certainly changed our practice. We no longer regard the weekend as the time to complete routine lists. We pay more attention to disabled children's difficulties with communication and whether this hides further disabilities. We place the use of laryngeal masks much higher in the list of what to do next when intubation has failed, and I (WJW) have taken a course in fibreoptic bronchoscopy.—O R DEARLOVE *is a consultant paediatric anaesthetist at Royal Manchester Children's Hospital* and W J WOOLDRIDGE *is a senior registrar in anaesthetics at Manchester Royal Infirmary*

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