

tunity for study; lack of study skills, examination skills, and skill in career planning; or the reason may be individual to each senior house officer.

The need for careers advice for senior house officers is already widely recognised,<sup>10 11</sup> and postgraduate deans are recommended to be aware of any senior house officers who have been in the grade for more than three years.<sup>1</sup> Our data indicate the scale of the problem; 39 senior house officers within a 62% sample may be projected to a total of 63 senior house officers in the region who are in need of careers advice because of problems of progression. If pro-active careers advice is to be provided earlier the logistics of providing it on such a wide scale require consideration and careful planning.

Another study being done in South East Thames and Merseyside indicates that not all junior doctors require much more than library sources of accurate careers information, one or two lectures early in their post-graduate years, and an informal talk with their consultant (J Grant, unpublished). Whether this is sufficient for all senior house officers remains to be evaluated.

#### EDUCATIONAL PROGRAMMES

One of the most important factors disclosed by the survey is the wide variety of qualifications that senior house officers have and are pursuing. Planning improvements in senior house officer training must therefore encompass many curricula. There is a widely held view,<sup>11</sup> however, that there is an identifiable common core of learning for all senior house officers; the identification of a rational training programme must involve not only the region but also the royal colleges and their regional representatives.<sup>1</sup>

That some senior house officers are doctors from overseas should also be taken into account; their methods of learning and their educational environments may well differ from those of their British peers.

Examination technique, approaches to learning, and acquisition of appropriate study skills may well form an important part of the training programme.

Designating time for study is also central to educational planning, meaning more than providing lectures and meetings, but also ensuring that the senior house officers can attend. Recognition of the value and indispensability of individual study as an obligatory and legitimate part of a senior house officer post is possibly more difficult to attain. The transition from student to practising doctor is not straightforward. Senior house officers seem to be regarded as doctors in the hospital—therefore there primarily for the service—and as students when off duty—and therefore expected to study. This expectation is no longer tenable, and this point will be taken up in the subsequent paper.

- 1 Council for Postgraduate Medical Education in England and Wales. *The problems of the senior house officer*. London: CPME, 1987.
- 2 Hsu H, Marshall V. Prevalence of depression and distress in a large sample of Canadian residents, interns and fellows. *Am J Psychiatry* 1987;**144**:1516-66.
- 3 Council for Postgraduate Medical Education in England and Wales. *A proposal for a district medical education structure*. London: CPME, 1987.
- 4 Department of Health and Social Services, Joint Consultants Committee, Chairmen of Regional Health Authorities. *Hospital medical staffing: achieving a balance*. London: DHSS, 1986.
- 5 Coles CR, Mountford B. *Interview surveys in medical and health-care education*. Dundee: ASME, 1988. (ASME Medical Education Research Booklet No 3.)
- 6 Woodward CA. *Questionnaire construction and question writing for research in medical education*. Dundee: ASME, 1988. (ASME Medical Education Booklet No 4.)
- 7 Coles CR, Gale-Grant J. *Curriculum evaluation in medical and health-care education*. Dundee: ASME, 1985. (ASME Medical Education Booklet No 1.)
- 8 Siegel S. *Nonparametric statistics*. New York: McGraw-Hill, 1956.
- 9 Review Body on Doctors' and Dentists' Remuneration. *Seventeenth report*. London: HMSO, 1987.
- 10 General Medical Council. *Recommendations on general clinical training*. London: GMC, 1987.
- 11 General Medical Council. *Recommendations on the training of specialists*. London: GMC, 1987.

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## II. Perceptions of service and training

### Abstract

Aspects of teaching and learning at senior house officer level in South East Thames region were investigated by analysis of the responses of consultants, senior registrars, registrars, and senior house officers to a postal questionnaire. Responses to sections about who teaches senior house officers, how senior house officers learn, and the relation between the service and training elements of these posts varied significantly, according to the status of the respondents; certain grades commonly overestimated their own contribution when compared with the estimates of the other grades. Although the replies of senior house officers showed that they were taught by various grades, 47% of this group did not regard the consultant as their main teacher. Senior registrars and registrars rather than consultants were regarded by senior house officers as best at teaching (63% v 48% respectively). Consultants and registrars were considered to require more commitment to training, personal educational training, and to be more approachable. Inquiry about teaching methods used most by senior house officers showed absence of a systematic approach to training. Only about half of senior house officers cited ward rounds with consultants. Views on the relation between training and service were significantly different among grades, but there was general dissatisfaction.

Overall, the findings disclosed the ineffectiveness

of senior house officer training posts. This arises from lack of a clear distinction between training and service elements, of educational training for teachers, of a clear contractual obligation to teach in the consultant grade, and of allotted time for training and study for the teachers and senior house officers respectively. Reversal of these current trends is needed for senior house officer posts to fulfil their main training function.

### Introduction

This paper describes teaching and learning at senior house officer level and, in particular, considers the uneasy relation between training and service, which is reflected in the incompatibility of the views of senior house officers compared with those of registrars, senior registrars, and consultants. The paper deals with training; specifically, who teaches senior house officers, how senior house officers learn, and the relation between service and training.

### Subjects and methods

The subjects and methods are described above. From the postal questionnaire of 282 closed and open ended questions completed by 608 doctors of consultant to senior house officer status in South East Thames region we report the findings of three of the 16 sections. Results of frequency counts, cross

tabulations,  $\chi^2$  analysis, and analysis of variance are presented.

### Results

The responses of senior house officers, registrars, senior registrars, and consultants are given. Differences among specialties, which were minimal, are not reported but are available in the full report (J Grant, unpublished).

#### WHO TEACHES SENIOR HOUSE OFFICERS?

The responses of the senior house officers indicated that this group is taught by various grades of doctors: consultants, senior registrars, registrars, other senior house officers, and clinical assistants. Although most senior house officers cited consultants as providing some teaching, nearly one in five (41, 18%) failed to cite them as teachers. Senior registrars and registrars were cited as providing some teaching by only 120 senior house officers (53%); 34 (15%) reported that they were sometimes taught by other senior house officers.

Table I shows the grades of doctors perceived to do most teaching, according to the status of the respondents. Only slightly more than half the senior house officers cited their consultants as providing most teaching, although consultants believed that their own contribution was significantly higher (120, 53% *v* 186, 69%;  $p < 0.05$  respectively); 106 (47%) senior house officers did not regard their consultants as their main teacher. Excluding other senior house officers and clinical assistants, the contribution of particular grades was considered to be consistently higher by doctors in that grade than in other grades; overall, the perceived contribution according to the responses of consultants, senior registrars, and registrars varied significantly.

Respondents were also asked about who was best at teaching senior house officers. Senior house officers opted for senior registrars and registrars as their preferred teachers rather than consultants (108, 48% *v* 63, 28% respectively). Asked why the chosen grades were the best, respondents gave only a small number of reasons in their free responses. Consultants were considered to be best because they can pass on their clinical experience, they have had most practice

at teaching, they provide continuity, and they are often the only people available. Senior registrars and registrars were considered best because they have up to date knowledge, they have a rapport and share "examination attitudes" of senior house officers, they have the available time, they are concerned with day to day patient care, they understand the training needs of senior house officers, and they are the keenest to teach.

Respondents were asked for their view on the statement: "No one sees teaching as a defined part of their job." Dissatisfaction decreased with increasing status; senior house officers scored 2.2, registrars 2.1, senior registrars 1.6, and consultants 1.4, where a score of 3 indicated complete agreement with the statement and 0 indicated disagreement. There was also common agreement that good teachers for senior house officers are lacking anyway. On this point senior house officers scored 2.2, registrars 2.0, senior registrars 1.9, and consultants 1.6, out of a maximum possible score of 3.

Table II shows how respondents considered consultants and registrars need to develop to teach more effectively. The consistent view for consultants, which diminished only slightly with increased status, was that they require a greater commitment to training juniors and also that they should have educational training and be more approachable. Registrars were also regarded (less so by senior house officers) as needing educational training; there was, however, a more consistent view among all grades that they should be more positive about their training role.

All groups, especially senior house officers were concerned for consultants to be given teaching sessions. Consultants and senior registrars rated this possibility 2.3 on a scale of 3 whereas registrars and senior house officers were even more enthusiastic (2.4 each). In addition, all groups agreed that consultants should be rewarded for teaching, although support was inversely related to status: the score for senior house officers was 2.2, for registrars 2.1, for senior registrars 2.0, and for consultants 1.6.

#### HOW SENIOR HOUSE OFFICERS LEARN

Table III shows the answers of respondents when asked to cite the five learning methods on which they thought that senior house officers rely most. There seemed to be no systematic approach to teaching or learning. Only just over half (58%) of the senior house officers cited ward rounds with a consultant whereas about four fifths of consultants (84%) thought that their senior house officers relied on this method. Only one other method (reading about cases seen) was cited by a similar proportion of senior house officers, although consultants were not aware of this learning activity among their senior house officers. The other learning methods could be cited only as minority pursuits. Rather less than half (47%) of senior house officers cited teaching from the senior registrars or registrars in the ward whereas almost as many (44%) cited discussion with peers and learning from unsupervised practice. Consultants generally thought that this was not a reliable method. In response to another item in the questionnaire 18% (41) of senior house officers and 33% (89) of consultants said that learning from unsupervised practice was little use educationally to senior house officers.

#### SERVICE AND TRAINING

Table IV shows that views about the relation between training and service were significantly different among the groups. The differences were, however, only in degree and not direction, and overall there was wide dissatisfaction among all groups.

TABLE I—Grades of doctors perceived to do most teaching of senior house officers by grade of respondent. Figures are numbers (percentages)\*

|                             | Consultant<br>(n=270) | Senior registrar<br>(n=43) | Registrar<br>(n=64) | Senior house officer<br>(n=226) | $\chi^2$   |
|-----------------------------|-----------------------|----------------------------|---------------------|---------------------------------|------------|
| Consultant                  | 186 (69)              | 16 (37)                    | 29 (45)             | 120 (53)                        | $p < 0.05$ |
| Senior registrar            | 49 (18)               | 27 (63)                    | 10 (16)             | 27 (12)                         | $p < 0.05$ |
| Registrar                   | 46 (17)               | 3 (7)                      | 21 (33)             | 41 (18)                         | $p < 0.05$ |
| Other senior house officers | 3 (1)                 |                            | 2 (3)               | 13 (6)                          |            |
| Clinical assistant          |                       |                            |                     | 5 (2)                           |            |

\*Dual responses in 17 cases.

TABLE II—Changes to improve teaching by consultants and registrars according to status of respondents

| Change suggested   | No (%) supporting change |                             |                      |                                  |
|--|--------------------------|-----------------------------|----------------------|----------------------------------|
|  | Consultants<br>(n=270)   | Senior registrars<br>(n=43) | Registrars<br>(n=64) | Senior house officers<br>(n=226) |
|  | <i>Consultants</i>       |                             |                      |                                  |
| Be more up to date                                       | 157 (58)                 | 21 (49)                     | 35 (55)              | 104 (46)                         |
| Greater involvement in active medicine                   | 84 (31)                  | 16 (37)                     | 29 (45)              | 99 (44)                          |
| Educational training                                     | 175 (65)                 | 35 (81)                     | 37 (58)              | 129 (57)                         |
| More commitment to training juniors                      | 208 (77)                 | 35 (81)                     | 58 (91)              | 208 (92)                         |
| Better attitudes towards patients                        | 57 (21)                  | 11 (26)                     | 13 (20)              | 65 (29)                          |
| Greater approachability                                  | 148 (55)                 | 27 (63)                     | 44 (69)              | 156 (69)                         |
|  | <i>Registrars</i>        |                             |                      |                                  |
| Educational training                                     | 181 (67)                 | 31 (72)                     | 41 (64)              | 104 (46)                         |
| More positive attitude to training senior house officers | 173 (64)                 | 33 (77)                     | 44 (69)              | 172 (76)                         |
| Better attitudes towards patients                        | 78 (29)                  | 8 (19)                      | 8 (13)               | 43 (19)                          |
| Greater approachability                                  | 94 (35)                  | 9 (21)                      | 19 (30)              | 68 (30)                          |

TABLE III—Learning methods on which senior house officers rely most, according to status of respondents

|  | No (%)                |                            |                     |                                 |
|--|-----------------------|----------------------------|---------------------|---------------------------------|
|  | Consultant<br>(n=270) | Senior registrar<br>(n=43) | Registrar<br>(n=64) | Senior house officer<br>(n=226) |
| Ward round with consultant                       | 227 (84)              | 25 (58)                    | 49 (77)             | 124 (55)                        |
| Reading about cases seen                         | 89 (33)               | 12 (28)                    | 31 (48)             | 113 (50)                        |
| Ward teaching with senior registrar or registrar | 111 (41)              | 22 (51)                    | 30 (47)             | 106 (47)                        |
| Unsupervised clinical practice                   | 51 (19)               | 14 (33)                    | 20 (31)             | 99 (44)                         |
| Discussion with peers                            | 92 (34)               | 20 (46)                    | 25 (39)             | 99 (44)                         |
| Library work or reference to journals            | 67 (25)               | 18 (42)                    | 20 (31)             | 84 (37)                         |
| Following up outcome of cases seen               | 54 (20)               | 6 (14)                     | 10 (16)             | 63 (28)                         |
| Formal teaching                                  | 62 (23)               | 12 (28)                    | 9 (14)              | 43 (19)                         |
| with consultant                                  | 32 (12)               | 12 (28)                    | 13 (20)             | 43 (19)                         |
| with senior registrar or registrar               | 32 (12)               | 3 (7)                      | 5 (8)               | 36 (16)                         |
| Half day release or study days                   | 54 (20)               | 8 (19)                     | 20 (31)             | 29 (13)                         |
| Membership teaching                              | 46 (17)               | 9 (21)                     | 8 (12)              | 27 (12)                         |
| Supervised practice                              | 43 (16)               | 4 (9)                      | 20 (31)             | 27 (12)                         |
| Case presentation meetings                       | 65 (24)               | 10 (23)                    | 8 (12)              | 27 (12)                         |
| Presenting patients at small meetings            | 51 (19)               | 6 (14)                     | 10 (16)             | 27 (12)                         |
| Clinical case conferences                        | 13 (5)                | 6 (14)                     | 9 (14)              | 25 (11)                         |
| Observing others working                         | 54 (20)               | 5 (12)                     | 4 (6)               | 23 (10)                         |
| Teaching in outpatients                          | 22 (8)                | 1 (2)                      | 5 (8)               | 18 (8)                          |
| x Ray conferences                                | 16 (6)                | 1 (2)                      | 2 (3)               | 18 (8)                          |
| Clinical skills teaching session                 | 22 (8)                | 1 (2)                      | 5 (8)               | 16 (7)                          |
| Guided work                                      | 5 (2)                 |                            | 4 (6)               | 11 (5)                          |
| Clinicopathological case conferences             | 22 (8)                | 5 (12)                     | 4 (6)               | 11 (5)                          |
| Lectures   | 11 (4)                |                            |                     | 11 (5)                          |
| Continuous assessment                            | 13 (5)                | 3 (7)                      | 3 (5)               | 11 (5)                          |
| Grand rounds                                     | 3 (1)                 |                            |                     | 9 (4)                           |
| Self instructional materials                     | 22 (8)                | 4 (9)                      | 8 (12)              | 9 (4)                           |
| Journal club                                     | 5 (2)                 | 3 (7)                      |                     | 9 (4)                           |
| Drug company meetings or videos                  | 5 (2)                 | 1 (2)                      | 1 (2)               | 5 (2)                           |
| Small group work                                 | 22 (8)                | 5 (12)                     | 3 (5)               | 5 (2)                           |
| Multidisciplinary meetings                       | 3 (1)                 |                            |                     | 5 (2)                           |
| Reviewing videos of personal practice            | 3 (1)                 |                            |                     | 2 (1)                           |
| Necropsies                                       | 3 (1)                 |                            | 3 (5)               | 2 (1)                           |
| Computer aided instruction                       |                       |                            |                     | 2 (1)                           |
| Tape-slide or audiovisual aids                   |                       | 1 (2)                      |                     |                                 |
| Videos to teach skills                           | 3 (1)                 |                            | 1 (2)               |                                 |
| Role play  | 5 (2)                 |                            | 1 (2)               |                                 |
| Clinical audit meetings                          | 5 (2)                 |                            | 3 (5)               |                                 |

TABLE IV—Relation between training and service according to status of respondents

| Questionnaire item   | Agreement with item*  |                            |                     |                                 |
|--|-----------------------|----------------------------|---------------------|---------------------------------|
|  | Consultant<br>(n=270) | Senior registrar<br>(n=43) | Registrar<br>(n=64) | Senior house officer<br>(n=226) |
| In practice, senior house officers provide service more than receive training  | 2.0                   | 2.5                        | 2.5                 | 2.6                             |
| Senior house officer hours are not conducive to learning   | 1.7                   | 1.8                        | 2.4                 | 2.6                             |
| Training and career development should be more closely linked  | 2.1                   | 2.5                        | 2.4                 | 2.5                             |
| Full benefit from training is difficult in posts that change every six months  | 1.5                   | 1.5                        | 1.9                 | 1.8                             |
| Looking for a job every six months disrupts continuity of training   | 2.1                   | 2.8                        | 2.4                 | 2.3                             |
| Consultants are not sympathetic to service and training pressures on senior house officers                                   | 1.3                   | 1.2                        | 1.9                 | 2.0                             |
| Senior house officers do not think that they are receiving postgraduate training   | 1.5                   | 1.9                        | 2.0                 | 2.2                             |
| Service and training needs may create a difficult boundary between the needs for developing independence and for supervision | 1.8                   | 1.9                        | 1.7                 | 1.8                             |
| Training cannot be altered without altering service  | 1.8                   | 1.8                        | 1.3                 | 1.3                             |

(F=18.77; df=3599; p<0.05)

\*0=No agreement, 3=full agreement.

**Discussion**

The responses obtained to the questionnaire indicate the large extent to which senior house officers are in a grade which includes training only in name. The finding is largely consistent across all survey specialties and hospital types (J Grant, unpublished). Senior house officers' reported experiences of training were considerably bleaker than were the perceptions of their consultants. The seriousness of this divergence rests in the fact that consultants have the power to change the status quo.

**TEACHING**

Senior house officers receive teaching from various doctors at a similar level and more senior levels. This is not surprising if interactions occurring in the course of providing the service—which will almost inevitably contain new information or clarification for junior doctors—are interpreted as teaching. That almost one in five senior house officers, however, failed to cite

consultants as teachers is more troubling, given the apparent training purpose of the post and consultants' responsibility for training. This responsibility, however, is difficult to define as, unless it is clearly stated, there are no given criteria against which to judge. For example, just over half of the senior house officers cited registrars or senior registrars as providing some teaching. This might seem a worryingly low figure in relation to the commonly held belief that such grades actually bear much of the teaching burden. On the other hand, if these grades have no specifically stated or statutory obligation to teach and no allowance in their work schedule to do so then the figure would seem to be high.

Personal estimates of contribution to teaching were consistently higher than those of others, which also requires explanation. The differences may arise from either lack of knowledge of exactly how much others do teach (which is probable if the training programme is not defined and reviewed) or different interpretations of the term teaching. In postgraduate medical education "apprenticeship" is the accepted dominant model of training—defined as learning by doing under the supervision of an experienced practitioner (K M Parry, conference of postgraduate deans and national association of clinical tutors (NACT), United Kingdom, 1986). This model, if unanalysed, perpetuates the unhelpful confusion between training and service, to the extent that providing the service may become identified with receiving training.

In the practical circumstances of a hard pressed service the element of supervision is liable to slip, as this survey showed, and the idea that learning occurs by doing alone becomes the implied belief that allows the service to survive and active training to decline. The survey also showed that people question whether training can be effective without teachers. And the consensus of the participants in this survey is that no one sees teaching senior house officers as a defined part of their job.

That only about half of senior house officers cite consultants as providing most of their teaching is dramatic and a figure for concern, not only in terms of training currently being provided but also changes that might be made to teaching. If consultants are to be given specific responsibilities to teach or to be an educational supervisor,<sup>1,2</sup> which they must fit into their routine schedule of work, a fundamental alteration is being envisaged, not simply a formalisation of the status quo. At a minimum, it will mean designated time away from the service. If the valued and important contribution of registrars and senior registrars to teaching is to be maintained the scale of the change increases. Without such a change the extent to which consultants may be held to account for teaching responsibilities for which they are not separately accountable from their service commitments is limited, and the same applies to registrars and senior registrars.

**LEARNING**

The responses show the large extent to which there is no systematic approach to teaching or learning for senior house officers. Only about half the senior house officers cited consultant ward rounds as one of the five learning methods on which they rely most. The consultants' point of view, however, is different; most (84%) believed that senior house officers relied on their teaching during ward rounds. Perhaps consultants think that they are teaching more effectively than they actually are, perhaps they are not aware of the other ways in which their senior house officers learn. Whatever the explanation, three things are clear: firstly, that consultants and senior house officers hold different views of senior house officers' experiences of

training; secondly, that there is no definition of training against which to judge the status quo; and thirdly, that when service and training are deemed to be the same, analysis of the educational status quo becomes extremely difficult.

#### SERVICE AND TRAINING

An important point to emerge from the survey of learning methods concerns the modified apprenticeship model discussed above. Only about one in nine of the senior house officers in the survey received supervision of practice or planned clinical skills teaching. On this basis it is reasonable to conclude that the model is now little different, for most senior house officers, from simply providing a clinical service. But learning by doing in the absence of a teacher to provide guidance and feedback has the inherent potential of learning the wrong thing in the wrong way.

It is well recognised that senior house officer posts are primarily service appointments (K M Parry, conference of postgraduate deans and national association of clinical tutors, 1986); this survey shows the extent to which this is true. As shown in the accompanying paper, senior house officers have a serious problem in finding time to study; this paper shows that there is little systematic teaching, few available good teachers, and that learning is very much an ad hoc process.

The dominance of the service commitment is the focal cause of the problem. All grades of doctors thought that the relation between service and training is unsatisfactory, that senior house officers provide a service rather than receive training, and that changing posts every six months precludes full benefit and does not usually permit continuity of training.

In conclusion senior house officers are in a grade in which the training component exists only in name; "free" time is used for study, agreed definitions of what constitutes training and education are generally

absent, and learning occurs ad hoc. When training is given it is provided by doctors who have little or no educational training and no clear contractual responsibility to teach but only an implied professional imperative. For both teachers and learners, the free competition between service and training will always be resolved in favour of service.

Until proper educational analysis of the contribution of service work to training is done the enforced dominant model—of service being training—will persist. The analysis should also indicate what educational support is needed to make service work of greater training benefit. The problem will not be resolved until service and training are recognised as different functions. Practising medicine and training to do that better have different characteristics and require different skills in learners and teachers. If training is a serious part of senior house officer posts and of senior doctors' responsibilities then it must be treated as such and planned for, clearly defined, and given protected time. There is evidence enough that changes are required before the term "training post" can have any real meaning.

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- 1 General Medical Council. *Recommendations on general clinical training*. London: GMC, 1987.
- 2 General Medical Council. *Recommendations on the training of specialists*. London: GMC, 1987.

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## BOOKS RECEIVED

### Allergy

*The Complete Guide to Food Allergy and Intolerance*. J Brostoff, L Gamlin. (Pp xiii+356; figs; £9.99 paperback.) London: Bloomsbury Publishing, 1989. ISBN 0-7475-0242-0.

### Cardiology

*Cardiovascular Clinics 2011*. "Acute Myocardial Infarction." Ed C J Pepine. Editor-in-Chief A N Brest. (Pp xix+329; figs; £50.) Philadelphia: Davis, 1989. ISBN 0-8036-6858-9.

*Invasive Investigation of the Heart: a Guide to Cardiac Catheterisation and Related Procedures*. G Miller. (Pp xiii+496; figs; £79.50.) Oxford: Blackwell Scientific, 1989. ISBN 0-632-02027-X.

*Pulmonary Atresia with Intact Ventricular Septum*. R M Freedom. (Pp xvi+262; figs; \$55.) New York: Futura, 1989. ISBN 0-87993-339-9.

*The 12 Lead Electrocardiogram*. In two books. The late E Schamroth. (Pp xx+830; figs; indexes; £110 the set.) Oxford: Blackwell Scientific, 1989. ISBN 0-632-02203-5.

### Cardiovascular diseases

*Confronting Mitral Valve Prolapse Syndrome*. L Frederickson. (Pp viii+182; figs; £9.95 paperback.) California: Slawson Communications, 1989. ISBN 0-932238-45-9.

*Thrombosis in Cardiovascular Disease*. Ed D G Julian, W Kübler, R M Norris, et al. (Pp xiv+460; figs; price not stated.) New York: Dekker, 1989. ISBN 0-8247-8147-3.

### Child welfare

*Practical Guidelines to the Assessment of the Sexually Abused Child*. P A M Horsham. (Pp vi+72; figs and colour plates; \$25 Canadian paperback.) Ontario: Children's Hospital of Eastern Ontario, 1989. Obtainable from the Canadian Public Health Association, 400-1565 Carling Avenue, Ottawa, Ontario K1Z 8R1, Canada. ISBN 0-9693958-0-9.

### Community medicine

*Patient Care in Community Practice: a Handbook of Non-Medical Health Care*. A guide for pharmacists, doctors, nurses, and other health-care workers. R Harman. (Pp xvi+240; figs; £10 paperback.) London: The Pharmaceutical Press, 1989. ISBN 0-85369-209-2.

### Dentistry

*Essentials of Safe Dentistry for the Medically Compromised Patient*. F M McCarthy. (Pp xviii+281; £17.50 paperback.) Philadelphia: Saunders, 1989. Distributed by Harcourt Brace Jovanovich. ISBN 0-7216-6233-1.

*The Practice of Primary Dental Care*. M C Jacob, D Plamping. (Pp xii+228; figs; £17.95 paperback.) London: Wright, 1989. Distributed by Butterworth Scientific. ISBN 0-7236-0925-X.

### Dermatology

*Pathology of the Skin with Clinical Correlations*. P H McKeec. (Pp viii+648; colour plates; figs; index; £120.)

Philadelphia: Lippincott/London: Gower Medical, 1989. ISBN 0-397-44601-2.

### Ear, nose, and throat

*Atlas of Otolgic Surgery*. Ed M V Goycoolea, M M Paparella, R L Nissen. (Pp xviii+369; figs; £59.50.) Philadelphia: Saunders, 1989. Distributed by Harcourt Brace Jovanovich. ISBN 0-7216-2337-9.

*Deafness: the Facts*. A P Freeland. (Pp viii+143; figs; £5.95 paperback.) Oxford: Oxford University Press, 1989. ISBN 0-19-261796-6.

### Family planning

*Vasectomy and Sterilization: What You Need to Know*. S Hayman. (Pp 110; figs; £3.99 paperback.) Wellingborough: Thorsons, 1989. ISBN 0-7225-1654-1.

### Gastroenterology

*Acute Treatment of Duodenal Ulcer: Analysis of 293 Randomized Clinical Trials*. Ed T Poynard, J P Pignon. (Pp viii+150; figs; \$30 paperback.) Montreux: Editions John Libbey Eurotext, 1989. ISBN 0-86196-211-7.

*A Stoma is for Life: a Study of Stoma Care Nurses and Their Patients*. B Wade. (Pp ix+219; figs; £13.95 paperback.) London: Scutari Press, 1989. ISBN 1-871364-06-X.

### General medicine

*Colour Aids*. "Chest Medicine." T W Evans, M Crockford. (Pp iii+137; figs

and colour plates; £6.50 paperback.) Edinburgh: Churchill Livingstone, 1989. ISBN 0-443-03853-8.

### Oncology

*Systematic Therapy for Genitourinary Cancers*. D E Johnson, C J Logothetis, A C von Eschenbach. (Pp xxiii+394; figs; £59.) Chicago: Year Book Medical Publishers, 1989. Distributed by Wolfe Medical. ISBN 0-8151-4935-2.

### Paediatrics

*Behaviour Problems in Young Children: Assessment and Management*. J Douglas. (Pp x+218; £9.95 paperback.) London: Tavistock/Routledge, 1989. ISBN 0-415-02248-7.

*Colour Atlas of Paediatric Facial Diagnosis*. T P Mann. (Pp ix+195; colour plates; £70.) Bristol: Clinical Press/Dordrecht: Kluwer Academic, 1989. ISBN CP: 1-85457-001-3, K: 0-85200-777-9.

*Long-Term Complications of the Therapy for Cancer in Childhood and Adolescence*. D M Green. (Pp xvi+172; figs; £30.) London: Macmillan, 1989. ISBN 0-333-49794-5.

*Manual of Pediatric Gastroenterology*. J F Fitzgerald, J H Clark. (Pp viii+216; figs; £187 paperback.) New York: Churchill Livingstone, 1989. ISBN 0-443-08538-2.

*Parenting*. B Spock. (Pp 312; £12.95.) London: Michael Joseph, 1989. ISBN 0-7181-3279-3.

*Pediatric and Adolescent Endocrinology*. Vol 19. "Androgens in Childhood: Biological, Physiological, Clinical and

Therapeutic Aspects," M G Forest. Series editor Z Laron. (Pp viii+282; figs; £93.40.) Basel: Karger, 1989. Distributed by John Wiley and Sons. ISBN 3-8055-4850-8.

### Miscellaneous

*The Alpha Plan for Total Relaxation*. L Proto. (Pp x+143; figs; £3.99 paperback.) London: Penguin, 1989. ISBN 0-14-010837-8.

*Always Tomorrow*. J Hunt. (Pp xvi+114; figs; £5.95 paperback.) Co Durham: Casdec, 1989. ISBN 0-907595-52-9.

*Get Slim and Stay Slim: the Psychology of Weight Control*. J J Ashcroft, J B Ashcroft. (Pp viii+114; £5.95 paperback.) Oxford: Oxford University Press, 1989. ISBN 0-19-261738-9.

*Grace*. M Stewart. (Pp 351; £12.95.) London: Collins, 1989. ISBN 0-00-223388-6.

*Is Science Necessary? Essays on Science and Scientists*. M F Perutz. (Pp xvii+285; figs; £14.95.) London: Barrie and Jenkins, 1989. ISBN 0-7126-2123-7.

*Leading in the NHS: a Practical Guide*. R Stewart. (Pp xiv+202; £8.99 paperback.) London: Macmillan, 1989. ISBN 0-333-48085-6.

*The Mind Is Not the Heart: Recollections of a Woman Physician*. E J Salber. (Pp xvi+283; figs; £19.95.) Durham NC: Duke University Press, 1989. ISBN 0-8223-0910-6.

*Safe Shopping, Safe Cooking, Safe Eating*. R Lacey. (Pp xiv+177; £2.99 paperback.) London: Penguin, 1989. ISBN 0-14-012716-X.