

Skin diseases and the trainee general practitioner

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THE need for factual information on the content of the British trainee general practitioner scheme has been commented on by Richardson and Howie (1972). By comparing the work of a group of general practitioners and a group of trainees, they found that the trainees' experience was broadly representative of general practice, and they used antibiotic prescribing as one measure of the learning process. Changes in trainees during one year have also been measured (Buchan and Richardson, 1972) using the time taken to carry out various components of a consultation. This showed that all trainees became quicker in the main skills of history taking, examination and treatment.

Skin diseases constitute a significant proportion of the average general practitioner's work-load. Fry (1964) estimated that in an average British practice of 2,500 persons, about 200 patients with skin disorders will be seen each year. This corresponds with the findings of Ashford and Pearson (1970) of a skin diseases surgery consultation rate of 81.2 per 1,000 for males and 89.6 per 1,000 females, and a home visit rate of 6.0 per 1,000 males and 8.7 per 1,000 female registered patients.

Aims

Skin diseases were selected for study as being a well-defined group of relatively common conditions with a limited range of treatment. The aims of the study were:

- (1) to find if the trainees' experience of skin diseases was representative of general practice;
- (2) to compare the treatment of skin disease by trainee assistants and established general practitioners;
- (3) to evaluate the use made by the trainee of his trainer in relation to skin diseases.

Method

Fourteen doctors who were in one-year trainee general-practice posts took part in the study. One of the doctors left after two months and one joined in the second month.

Each trainee was asked to record ten items of information for every patient seen with a skin disorder during the first week of each month from November 1971 to April 1972. These items were: place of consultation, first or return consultation, past history of skin disease, age, sex, diagnosis, whether the trainee was assisted in coming to a diagnosis, causal factors, treatment and hospital referral. In addition, the total number of surgery and home consultations for all conditions seen during the week was recorded.

The skin diseases diagnosed were coded by the four-digit *I.C.D.* system, and the drug code used was that employed in the compilation of the Aberdeen and Dundee drug information systems, which divides all drugs into seven categories and 44 sub-categories.

Similar information was collected from a group of 12 general-practitioner principals, randomly selected from the 147 doctors who participated in the North-east Scotland work-load study (Richardson *et al.*, 1972). It was found that all the doctors in this selected group had been qualified for more than ten years. Information from these doctors, covering a possible 26 days each over a period of one year, was reviewed and details of all patients seen with diseases of the skin (*I.C.D.* 680-709) examined.

Results

The returns of the trainees during a period of four months (a possible 28 days' recording) were compared with 12 general practitioners from the work-load study (a possible 26 days' recording), for all consultations for conditions classified as *I.C.D.* category 12—"Diseases of the skin and subcutaneous tissue". The infective and parasitic skin diseases (*I.C.D.* category 1) were not included in this study.

The total consultations for skin diseases by the general practitioners were 385 (5.2 per cent of all consultations) and by the trainees were 271 (4.5 per cent of all consultations). The types of consultation are shown in Table 1.

TABLE 1
TYPE OF CONSULTATION

	<i>General practitioners</i>	<i>Trainees</i>
First	207 (53.8%)	182 (67.2%)
Return	178	89
Surgery	351 (91.2%)	222 (81.9%)
Home	34	49

The trainee is likely to see fewer return consultations than an established general practitioner, and it was found that there was a significantly higher number of first consultations by the trainees. The large number of patients seen in the surgery by both groups means that the amount of skin disorders a trainee sees will be influenced by the proportion of time he spends in surgery consultations.

The skin diseases recorded by both groups are shown in Table 2. From this it is apparent that the range of skin diseases seen by the trainees is comparable to that presenting to the general practitioners. The difference in the proportion of cases of impetigo is probably balanced to some extent by cases recorded by the general practitioners as "skin infection" and classified as "other local infections of skin" (*I.C.D.* 686).

One third of all skin diseases seen were labelled eczema and dermatitis. The trainees recorded a specific cause in half (51 per cent) of the 99 cases—in 12 cases it was a detergent and in 23 a napkin dermatitis.

The second-largest single group were the diseases of sebaceous glands, and in the majority of cases this was acne vulgaris.

The treatment of these skin diseases is shown in Table 3. The pattern of prescribing is very similar in the two groups. The commonest sub-category is the corticosteroids, used topically in most cases. The second-commonest sub-category is the antibiotics, used in about a quarter of all prescriptions, and on half of the occasions when prescribed by the trainees the antibiotic was used systemically.

The prescriptions for corticosteroids and antibiotics together comprised more than two thirds of all prescriptions with a range of 38.5–91.6 per cent for the individual trainees and 42.8–84.6 per cent for the general practitioners. Among the general practitioners the high users of corticosteroids were low users of antibiotics (Spearman's coefficient R differed significantly from zero, $D^2=517$). No such correlation was found among the trainees.

TABLE 2
DIAGNOSIS OF SKIN DISEASES

	<i>General practitioners</i>	<i>Trainees</i>
<i>Infections of skin (I.C.D. 680-686)</i>		
Boil/carbuncle	21 (6%)	12 (4%)
Cellulitis finger/toe	17 (4%)	14 (5%)
Other cellulitis	14 (4%)	10 (4%)
Impetigo	18 (5%)	19 (7%)
Pilonidal cyst	—	2 (0.7%)
Other infection	32 (8%)	—
	102 (27%)	57 (21%)
<i>Inflammatory conditions (I.C.D. 690-698)</i>		
Seborrhoeic dermatitis	4 (1%)	10 (4%)
Infantile eczema	1 (0.3%)	6 (2%)
Eczema/dermatitis	144 (37%)	99 (36%)
Dermatitis herpetiformis	1 (0.3%)	—
Erythematous conditions	6 (2%)	5 (2%)
Psoriasis	21 (6%)	14 (5%)
Lichen	3 (0.8%)	1 (0.4%)
Pruritis	13 (3%)	14 (5%)
	193 (50%)	149 (55%)
<i>Other skin conditions (I.C.D. 700-709)</i>		
Corns/callosities	4 (1%)	1 (0.4%)
Hypertrophic/atrophic	2 (0.5%)	—
Diseases of nails	6 (2%)	—
Diseases of hair/follicles	12 (3%)	6 (2%)
Diseases of sweat glands	1 (0.3%)	4 (2%)
Diseases of sebaceous glands	40 (10%)	33 (12%)
Chronic ulcer	4 (1%)	2 (0.7%)
Urticaria	18 (5%)	13 (5%)
Other skin diseases	2 (0.5%)	8 (3%)
	89 (23%)	67 (25%)
<i>Total</i>	384 (100%)	273 (100%)

TABLE 3
SYSTEMIC AND TOPICAL DRUGS PRESCRIBED

<i>Drug category</i>	<i>General practitioners</i>	<i>Trainees</i>
Corticosteroids	146 (42%)	138 (42%)
Antibiotics	85 (24%)	80 (25%)
Antihistaminics	46 (13%)	27 (8%)
Local antiseptics	26 (7%)	27 (8%)
Locally acting	25 (7%)	29 (9%)
Antifungal	2 (0.6%)	13 (4%)
Tranquillisers	5 (1%)	5 (2%)
Hypnotics	5 (1%)	—
Analgesics	4 (1%)	1 (0.3%)
Antidepressives	1 (0.3%)	—
Others	6 (2%)	6 (2%)
<i>Total</i>	351 (100%)	326 (100%)

There were significant differences between the two groups in their prescribing habits. The general practitioners gave no prescription at 69 (18 per cent) consultations and the trainees at 23 (eight per cent) consultations. It might be argued that there would be a difference in prescribing at first or return consultations. In the 212 first consultations by the general practitioners no prescription was given in 35 (17 per cent), while in 182 such consultations by the trainees no prescription was given to 22 (12 per cent) patients.

When the trainees prescribed for a patient they more often gave more than one drug (Table 4).

TABLE 4
NUMBER OF DRUGS PRESCRIBED AT CONSULTATION

	<i>General practitioners</i>	<i>Trainees</i>
One drug	281 (89%)	181 (72%)
Two drugs	32 (10%)	63 (25%)
Three drugs	2 (0.6%)	5 (2%)
Four drugs	—	1 (0.4%)

There was considerable agreement between the two groups in their use of individual drugs. Both used 'Betnovate' three times more often than any other single drug. Next in order of frequency for the general practitioners were hydrocortisone, penicillin, ampicillin, oxytetracycline, methylprednisolone, and promethazine. These drugs also occurred among the ten most commonly used by the trainees, except that they appeared to prefer chlorpheniramine as an antihistaminic. The second-commonest drug used by the trainees was calamine, whereas it was only prescribed on three occasions by the general practitioners.

A total of 40 consultations by the trainee assistants (six per cent of total) resulted in a referral to hospital—37 to out-patient departments and three for inpatient care (these were a squamous cell carcinoma, a widespread urticarial rash and a cellulitis of face).

TABLE 5
TRAINER-AIDED DIAGNOSIS

<i>Trainee</i>	<i>Total consultations</i>	<i>Trainer-aided diagnoses</i>	<i>Percentage</i>
A	14	3	21
B*	111	17	15
C*	35	5	14
D	35	5	14
E	59	6	10
F*	40	3	8
G*	74	5	7
H*	17	1	6
I	36	2	6
J	53	1	2
K	70	1	1
L	68	0	0
M	36	0	0
N	27	0	0
Average	48.9	3.6	7

*Trainees with previous training in skin diseases.

The trainees also recorded whether they had been aided by their trainer in the consultation and the results are shown in Table 5. The trainer was referred to in seven per cent of all consultations, with a range in the use that the individual trainee made of his trainer of from nil to 21 per cent of consultations. The previous experience of each trainee in skin diseases was ascertained, and of those who had had some training this varied from attending weekly clinics to a two-month post in a dermatology department. Surprisingly, there was a highly significant difference between the trainees with previous experience, (who recorded a trainer-aided diagnosis in 11 per cent of consultations) and the trainees with no previous training in skin diseases (who recorded five per cent of trainer-aided diagnoses). Three of the trainee assistants with no previous training in skin diseases recorded no trainer-aided diagnoses.

Discussion

This study was designed to investigate one area of the content of the trainee assistant's experience of general practice. The number of consultations for patients with skin diseases, and the proportion of the various conditions seen by the trainee assistants is very similar to that of the group of established general practitioners. The number of first consultations was higher in the trainee group, as might be expected when a patient with a recurrent skin condition would probably rather consult his own doctor.

This suggests that, in relation to skin diseases, the trainees' experience is representative of general practice. As only nine per cent of all patients with skin diseases were seen at home by the general-practitioner principals, this experience might not be adequate if the trainee was doing a disproportionate share of home visits.

It is apparent that the trainees are less willing merely to reassure the patient and to give no prescription than the general practitioner, which probably reflects their lack of experience.

The trainee scheme is intended to give specific training for general practice, under the guidance of a trainer. The data recorded by this group of trainee assistants suggest that the least experienced trainees were, on the whole, less likely to seek advice from their general-practitioner teacher. Alternatively, this may show that the trainees with previous experience of skin diseases were more aware of the problems. This is perhaps one area of general practice in which the teacher might define a number of topics for discussion with his trainee, and thus provide a basis for an evaluation of the trainee's experience in general practice.

Finally, it may be suggested that this type of study could usefully be extended to other areas of morbidity in general-practice training.

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