13. THE EXTENT OF ADVERTISING OF PHARMACEUTICAL PRODUCTS

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Of all the sources of information available to the general practitioner the most visible are the printed advertisements for drugs. He is likely to come across these in three ways. *Direct mail* advertisements which usually take the form of a leaflet or booklet advertising a single brand preparation of a drug; *Handouts* from drug company representatives which are generally more lavish in style and content; *Periodical advertisements* which are individual advertisements placed in journals, magazines, and newspapers aimed at general practitioners. There are two main types of periodicals, those which are sent free of charge to doctors, and those which are obtained by subscription.

Direct mail and periodical advertisements cost the pharmaceutical industry an estimated £6 million in 1973 (Cowhig, 1974). This compares with about £7 million spent by detergent manufacturers advertising to the general public. It represents about £240 per general practitioner per year, or about £20 per month. This is only a proportion of the drug industry's total promotional budget, which is probably in the region of £30 to £40 million and which includes sales representatives, courses, meetings, film shows, and entertainment. Market research is probably also included in this total.

There appear to have been few systematic studies of the extent of advertising literature received through the post. In 1966 a survey conducted for the Sainsbury Committee (1967) found that each general practitioner received on average seven items of promotional literature per day. In recent years the amount of direct mail advertising seems to have reduced. According to figures from the Medical Mailing Company the average number of direct mail advertisements received by doctors on the industry's mailing lists was 3·7 items for each postal delivery day in 1972, and 2·7 in 1973 (Association of the British Pharmaceutical Industry, 1974). However, while it seems that direct mail has decreased, there has been an increase in periodical advertisements. The number of free (controlled circulation) periodicals sent to general practitioners has increased from about ten in 1966 to 24 by the end of 1974.

This study was designed to look at the current extent of advertising aimed at general practitioners.

Samples

This study was confined to direct mail and periodical advertisements.

(*a*) *Direct mail advertisements*

Direct mail advertisements were collected by 13 general practitioners in England and Wales in different weeks during 1974–5. The doctors were selected to give a wide geographical coverage of the country in case there were significant regional differences in mailings. This collection was not supervised and there is a possibility that some doctors did not forward all their advertising mail. The results could therefore be underestimates.

(*b*) *Advertisements in periodicals*

The editors of all controlled circulation periodicals were approached in order to ensure inclusion on their mailing lists for October 1974 through to September 1975. Most agreed, but a few declined on the grounds of cost. Other periodicals were obtained from a general practitioner. Also monitored were two drug company house journals, *Prescriber's Journal* (DHSS), and *Medical World* of the *Medical Practitioners' Union*. The final list comprised nearly all the free periodicals which are regularly sent to general

TABLE 1

CONTROLLED CIRCULATION AND LARGE CIRCULATION SUBSCRIBED PERIODICALS MONITORED FROM OCTOBER 1974

	Format	*Frequency*
(*a*) *Controlled circulation periodicals (free to all general practitioners)*		
British Journal of Sexual Medicine	Magazine	2 Monthly
BMA News	Magazine	Occasionally
Doctor	Newspaper	Weekly
General Practitioner	Newspaper	Weekly
Interface	Magazine	Monthly
Medicine	Magazine	Monthly
Medical Digest	Newspaper	Weekly
Medical News	Newspaper	Weekly
The Medical Week (ceased November 1974)	Reference	Monthly
MIMS (Monthly Index of Medical Specialties)	Magazine	Monthly
MIMS Magazine	Reference	Occasionally
MIMS colour index	Magazine	Monthly
Modern Geriatrics	Magazine	Monthly
Modern Medicine	Magazine	Monthly
Patient Care	Newspaper	Weekly
Pulse	Magazine	Monthly
Pulse Magazine	Magazine	Monthly
Practice Team	Magazine	2 Weekly
Update	Magazine	Monthly
Update Review (started January, 1975)	Magazine	2 Weekly
World Medicine	Magazine	Monthly
(*b*) *Individual drug company publications (free to all general practitioners)*		
Documenta Geigy	Newspaper	Monthly
Rostrum (Pfizer)	Magazine	Monthly
(*c*) *Subscribed journals (1971–2 circulation shown)*		
British Medical Journal (83,000)	Magazine	Weekly
Journal of the Royal College of General Practitioners (8,000)	Magazine	Monthly
Practitioner (34,000)	Magazine	Monthly
(*d*) *Others (circulation free to all general practitioners)*		
Prescribers' Journal (DHSS)	Magazine	2 Monthly
Medical World (MPU)	Newspaper	Monthly

practitioners. In addition, professional/subscribed journals with large circulations (8,000 plus) and a general-practice audience were sampled. The periodicals which were monitored are shown in table 1.

This report is based on an analysis of all issues of the above periodicals published between October 1974 and March 1975 (six months). The total number analysed was 246 (six issues were missed from the sample). Also included are three separate collection weeks of direct mail sent to general practitioners (one week each in October, 1974 and January and April, 1975).

Extent of promotional advertising

On average in each month during the period monitored, general practitioners received the following unsolicited material through the post: 36 issues of controlled circulation

TABLE 2

AVERAGE CONTENTS OF PERIODICALS, PER ISSUE, OCTOBER 1974–MARCH 1975

	Controlled circulation periodicals	*Subscribed periodicals*	*Others*	*All periodicals*
Number of pages	50·8	120·0	20·7	60·9
Number of drug advertisement pages*	22·2	29·8	0·0	22·8
Number of other advertisement pages*	1·3	28·5	1·3	5·6
Number of different drugs advertised	33·5	26·9	0·0	31·5
Number	200	39	7	246

*Calculated by column inches.

periodicals (lists a, b, d, table 1) and 30 envelopes containing direct mail advertisements—a total of 66 postal items in a typical month, and an average of 2·6 postal items for each postal delivery day. An average day's post would include at least one free controlled circulation periodical, and one direct mail advertisement. In addition, a general practitioner might also have received six issues of subscribed periodicals (list c, table 1).

Content of periodicals

The six-month monitoring yielded 246 issues of periodicals for analysis. These were divided into three categories:

(1) Controlled circulation periodicals and drug company publications produced primarily as vehicles for product promotion (lists a, b, table 1),

(2) Subscribed journals produced primarily for professional purposes (list c),

(3) Others which contained no drug advertisements (list d).

The average number of pages in these periodicals was 61, although this concealed a wide variation, for instance from the newspaper type of publication with perhaps 20 pages up to the journal format with 200 pages. Controlled circulation periodicals averaged fewer pages (50·8) than subscribed periodicals (120·0). Table 2 shows the average contents for each issue.

The data in table 2 indicate that while there are variations in the amount of space devoted to different types of advertisements, and variations in the size (number of pages) of the different types of periodical, both the controlled circulation and the subscribed periodicals have similar numbers of drugs advertised in each issue (33·5 and 26·9 respectively).

Both controlled circulation and subscribed periodicals had just under half of their pages as advertising material. They differed in that controlled circulation periodical advertising was almost wholly devoted to drug advertising, whilst only half of subscribed journal advertising was in this form (table 3).

Content of direct mail advertisements

The general practitioners received an average of 30 envelopes containing direct mail advertisements each month, an average of just over one envelope for each postal delivery day. The advertisements in the envelopes were mostly in the form of leaflets and letters, and less often booklets and data sheets. The total number of different drugs advertised by direct mail was approximately 40 per month for each doctor. This is higher than the

TABLE 3

AVERAGE PROPORTION OF PAGES DEVOTED TO DIFFERENT TYPES OF ADVERTISING, PERIODICALS OCTOBER 1974–MARCH 1975

	Controlled circulation periodicals	*Subscribed periodicals*	*Others*	*Total*
Number	200	39	7	246
Drug advertisement pages as percentage of total pages	*42·1*	*22·6*	*0·0*	*37·8*
Other advertisement pages as percentage of total pages	*3·5*	*23·4*	*8·0*	*6·8*
Total advertisement pages as percentage of total pages	*45·6*	*46·0*	*8·0*	*44·6*

number of envelopes received because some envelopes contained advertisements for more than one drug. Very occasionally, envelopes contained advertisements for non-pharmaceutical products and services.

Total number of advertisements per month

The average number of drug advertisements appearing each month was 1,331, an average of 53 advertisements for each postal delivery day. This was made up of an average of 1,117 advertisements in controlled circulation periodicals, 174 in subscribed journals, and 40 direct mail advertisements. (The figures are slight underestimates because six issues were missed from sampling in the six months, and the general practitioners may not have sent all their direct mail advertisements).

Advertisements for different therapeutic classes

The distribution of advertisements for different therapeutic classes is shown in table 4. The most frequently advertised classes were diuretics, anti-hypertensives, expectorants and cough suppressants, anti-pyretic analgesics, anti-depressants, antibiotics, preparations for rheumatic diseases and gout, and corticosteroids acting on the skin, together accounting for 39 per cent of all advertisements.

Comparison of advertising with prescribing

It is possible to compare the distribution of advertisements for different therapeutic groups with the distribution of prescriptions dispensed for those groups. In this comparison several reservations should be borne in mind. First, while prescription data from the DHSS are for a complete year the advertising data are for six months, therefore seasonal variation in advertising may account for some difference between the two distributions. Second, advertising data refer to 1974/5 while prescribing data refer to 1973.

A comparison of prescriptions dispensed in 1973 with the advertising data is given in table 5. The distributions are similar except for preparations acting on the cardiovascular system (more advertisements than prescriptions) and preparations acting on the nervous system (more prescriptions than advertisements).

Interesting differences emerge when the individual therapeutic classes are examined. For instance, drugs acting on the nervous system are advertised less than they are prescribed. Much of this is accounted for by the barbiturates, which in the period monitored were not advertised, but which accounted for 3·2 per cent of all prescriptions, and the non-barbiturate hypnotics which accounted for 1·05 per cent of advertisements but 3·05 per cent of prescriptions. On the other hand, the anti-depressants were advertised more (4·32 per cent) than they were prescribed (2·72 per cent).

TABLE 4

DISTRIBUTION OF ADVERTISEMENTS FOR EACH THERAPEUTIC CLASS, OCTOBER 1974–MARCH 1975, PERIODICAL ADVERTISEMENTS

Therapeutic classes		*Number*	*%*
01	Antacids	234	*3·02*
02	Antispasmodics	55	*0·71*
03	Bitters and tonics	19	*0·25*
04	Gastro-intestinal sedatives	78	*1·01*
05	Other miscellaneous digestive remedies	19	*0·25*
06	Laxatives and purgatives, evacuant enemas and suppositories	103	*1·33*
07	Corticosteroid preparations acting locally on the rectum	21	*0·27*
08	Anti-infective agents acting locally on the gastro-intestinal tract	31	*0·40*
09	Preparations acting on the heart	226	*2·92*
10	Diuretics	344	*4·45*
11	Anti-hypertensives	317	*4·10*
12	Vasodilators	281	*3·63*
13	Vasoconstrictors	0	*0·00*
14	Anti-migraine drugs	142	*1·83*
15	Anti-coagulants	0	*0·00*
16	Other preparations acting on the vascular system	19	*0·25*
17	Expectorants and cough suppressants	432	*5·58*
18	Preparations relaxing bronchial spasm	286	*3·70*
19	Antibiotic preparations acting locally on the lower respiratory tract	0	*0·00*
20	Other preparations acting locally on the lower respiratory tract	68	*0·88*
21	Other preparations affecting the lower respiratory tract, including stimulants	16	*0·21*
22	Addictive analgesics	0	*0·00*
23	Antipyretic analgesics	471	*6·09*
24	Barbiturates (unadmixed or if principal ingredient)	0	*0·00*
25	Hypnotics (non-barbiturate)	81	*1·05*
26	Tranquillisers	204	*2·64*
27	Antidepressants	334	*4·32*
28	Stimulants and appetite suppressants	130	*1·68*
29	Anticonvulsants	29	*0·37*
30	Preparations used in Parkinsonism	165	*2·13*
31	Muscle relaxants	14	*0·18*
32	Other preparations acting on the nervous system	2	*0·03*
33	Local anaesthetics and counter-irritants	64	*0·83*
34	Anti-emetics (other than preparations of unadmixed hyoscine salts)	83	*1·07*
35	Antibiotic and other anti-infective preparations acting locally on the vagina and urethra	45	*0·58*
36	Other preparations acting locally on the vagina or urethra	22	*0·28*
37	Preparations acting on the uterus	0	*0·00*
38	Other preparations acting on the genitourinary system	32	*0·41*
39	Penicillins	298	*3·85*
40	Tetracyclines	242	*3·13*
41	Streptomycins	0	*0·00*
42	Chloramphenicol	0	*0·00*
43	Anti-fungal antibiotics	1	*0·01*
44	Other antibiotics	328	*4·24*
45	Sulphonamides	5	*0·06*
46	Anti-T.B. preparations (other than antibiotics)	5	*0·06*
47	Anthelmintics	13	*0·17*
48	Other anti-infectives (including anti-leprotic, anti-syphilitic and antiprotozoal preparations)	226	*2·92*
49	Corticosteroids for systemic use	22	*0·28*

TABLE 4—*continued*

Therapeutic classes		*Number*	*%*
50	Oestrogen-progestogen combinations	154	*1·99*
51	Other sex hormone preparations	129	*1·67*
52	Insulin	0	*0·00*
53	Oral hypoglycaemics	50	*0·65*
54	Antidiuretics and other pituitary hormones	0	*0·00*
55	Anabolic drugs	3	*0·04*
56	Thyroid and anti-thyroid preparations	0	*0·00*
57	Other preparations affecting metabolism	52	*0·67*
58	Cobalamin preparations	0	*0·00*
59	Iron and other erythropoietic preparations	112	*1·45*
60	Vitamins and vitamin preparations other than cobalamin preparations	71	*0·92*
61	Antimyotic preparations	0	*0·00*
62	Calcium preparations	1	*0·01*
63	Preparations for electrolyte and water replacement	40	*0·52*
64	Other preparations affecting nutrition and blood	11	*0·14*
65	Preparations specified for rheumatic diseases and gout	434	*5·61*
66	Antihistamines for allergic reactions	80	*1·03*
67	Preparations for protein desensitisation	120	*1·55*
68	Other preparations affecting allergic reactions	0	*0·00*
69	Antibiotic preparations acting on the ear, nose and oropharynx	9	*0·12*
70	Corticosteroid preparations acting on the ear, nose and oropharynx	113	*1·46*
71	Other preparations acting on the ear, nose and oropharynx	97	*1·25*
72	Antibiotic preparations acting on the eye	21	*0·27*
73	Sulphonamide preparations acting on the eye	0	*0·00*
74	Corticosteroid preparations acting on the eye	0	*0·00*
75	Other preparations acting on the eye	0	*0·00*
76	Antibacterial preparations acting on the skin	86	*1·11*
77	Fungicides and antiparasitics	33	*0·43*
78	Corticosteroid preparations acting on the skin	378	*4·88*
79	Sedatives, antipruritics, keratolytics and protectives	113	*1·46*
80	Antiseptics (including surgical antiseptics)	7	*0·09*
81	Other preparations acting on the skin and mucocutaneous junctions	20	*0·26*
82	Vaccines and sera	43	*0·56*
83	Reagents	0	*0·00*
84	Others	50	*0·65*
85	Dressings	0	*0·00*
86	Appliances	0	*0·00*
87	Trusses	0	*0·00*
88	Hosiery	0	*0·00*
89	Miscellaneous	5	*0·06*
	Total	7739	*100·02*

TABLE 5

DISTRIBUTION OF ADVERTISEMENTS (1974/5) AND PRESCRIPTIONS (1973, ENGLAND) BY DHSS THERAPEUTIC CLASSIFICATIONS

Therapeutic groups	*Advertisements 1974/5 %*	*Prescriptions 1973 %*
Preparations acting on the alimentary system (Therapeutic classes 1–8, table 4)	*7·24*	*7·74*
Preparations acting on the cardiovascular system (classes 9–16)	*17·18*	*10·30*
Preparations acting on the lower respiratory system (classes 17–21)	*10·37*	*9·70*
Preparations acting on the nervous system (classes 22–34)	*20·39*	*26·90*
Preparations acting on the genitourinary system (classes 35–38)	*1·27*	*0·71*
Preparations acting systemically on infections (classes 39–48)	*14·24*	*13·80*
Preparations affecting metabolism (classes 49–57)	*5·30*	*3·20*
Preparations affecting nutrition and blood (classes 58–64)	*3·04*	*5·36*
Preparations used in rheumatic diseases (class 65)	*5·61*	*3·32*
Preparations affecting allergic reactions (classes 66–68)	*2·58*	*2·65*
Preparations acting on the ear, nose and oropharynx (classes 69–71)	*2·83*	*2·71*
Preparations acting on the eye (classes 72–75)	*0·27*	*1·38*
Preparations acting on the skin and mucocutaneous junctions (classes 76–81)	*8·23*	*6·94*
Immunological preparations (class 82)	*0·56*	*0·42*
Other drugs and preparations (classes 83–84)	*0·65*	*2·26*
Dressings and appliances (classes 84–89)	*0·06*	*2·62*
Total	*99·82%*	*100·01%*
Numbers	7739	263,873,000

Other examples of drugs advertised more than they were prescribed were hormone preparations including contraceptive preparations, which accounted for 3·66 per cent of advertisements yet only 0·99 per cent of prescriptions. Advertisements for preparations acting on the heart, diuretics and anti-hypertensives accounted for 11·47 per cent of all advertisements, while these preparations accounted for 8·26 per cent of all prescriptions.

A comparison of the percentage of advertisements for a particular therapeutic class with the percentage of prescriptions for that class in the preceding year sheds light on changing promotional activities. It would appear from the above data that anti-depressants, heart drugs, and contraceptives are now subject to promotional campaigns out of proportion to their current use.

Number of different products advertised

Many advertisements were repeated, both in the different periodicals and to the same doctors. The total number of different drug preparations advertised was therefore less

than the total number of advertisements. In the periodicals there was an average of 251 different drugs advertised each month (based on three month's data). There was a turnover from month to month of about 30 to 35; in other words, in each new month compared to the previous month, 30–35 drugs ceased to be advertised and an equal number of new advertisements appeared. There was a large overlap between periodicals and direct mail advertisements, indicating that as promotional vehicles they are used to complement one another.

Discussion

It has proved easy to monitor the extent of advertising and other papers on this study have reported on the informational content of advertisements (Stimson, 1975a, b, c). The most striking change in promotional activity since the mid 1960s is the switch from individual direct mail advertisements to advertisements in controlled circulation (free) periodicals. The typical general practitioner now receives an average of 36 issues of free periodicals each month. Because each periodical carries a large number of drug advertisements, general practitioners are potentially exposed to over 1,300 advertisements for 250 different drugs each month.

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14. THE USE OF REFERENCES IN DRUG ADVERTISEMENTS

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Advertisers' claims for their products are sometimes backed by testimonials from satisfied customers. Drug companies use what may be more credible material by attempting to substantiate claims for their products with references from professional sources. A typical drug advertisement in a medical journal might have two or three such references backing a claim for the use of a drug preparation.

References are given in a style similar to those found in professional texts, which should enable the reader to check on the claims in the advertisement. The *Code of Practice* of the Association of the British Pharmaceutical Industry (1974) suggests that "information (in promotional material) must be capable of substantiation". An alternative view which has been expressed is that references in drug advertisements are included to give a respectable scientific image rather than for their scientific usefulness. For example, the Sainsbury Committee (1967) commented that "Sometimes the aim seems to be to impress the doctor with the number of references regardless of their quality". In some advertisements the references appear obscure or hard to obtain. An example which would fit this criticism is an advertisement for a diuretic 'Burinex' which was