Treatment with corticotropin or corticosteroids, given during 21 pregnancies, had resulted in no obvious reduction of fertility; the highest dose being given at the time of conception was 27.5 mg. of prednisolone daily. Four pregnancies terminated in abortion and three in foetal death, while one baby had a cleft-palate, but there was no evidence that these mishaps were related to treatment. The birth weights of full-term babies were within normal limits.

Toxaemia of pregnancy developed in one patient, but this was probably unrelated to cortisone treatment. In another patient hypertension correlated closely with urinary corticosteroid excretion and was probably the result of corticotropin treatment.

Corticosteroid treatment was not obviously associated with an increase in obstetrical complications.

Symptoms generally improved during pregnancy, but complete remission was seen relatively infrequently, although it was usually possible to reduce corticosteroid dosage substantially during the later months. Severe disease, previously in an active phase, generally showed measurable improvement during pregnancy but progressive deterioration afterwards, whether corticosteroids were given or not, and this was especially noticeable if symptoms increased during pregnancy. Patients with quiescent, long-standing, or low-grade disease showed little change.

Two patients collapsed after delivery. The importance of giving generous additional doses of corticosteroids throughout labour to previously treated patients is emphasized.

I wish to record my debt to the late Dr. Peter Davis for the stimulation and help he gave me throughout my study of these patients. I am grateful to Dr. W. S. C. Copeman and to Professor J. H. Kellgren for advice and for permission to report, and to the obstetricians, in particular Professor W. I. C. Morris, who supervised the perinatal care of the patients and kindly supplied me with clinical details. I thank Dr. J. Sharp and Dr. Donald Longson for constructive criticism, and Dr. Leslie Chapman for the urinary steroid estimations on Dr. Copeman's patients. I wish to express my gratitude to Professor E. G. L. Bywaters and Dr. B. M. Ansell for allowing me to include details of their patients, and for their helpful advice.

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# THE GENERAL PRACTITIONER AND THE SCHIZOPHRENIC PATIENT

#### BY

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The present trend towards community care of the mentally ill has led to a considerable increase in the number of schizophrenic patients discharged from mental hospitals. Brown, Parkes, and Wing (1961), in a study of admissions to three London mental hospitals during 1951 and 1956, showed that, in spite of an increased chance of readmission and particularly multiple readmissions, schizophrenic patients are now spending more time in the community.

This paper describes one aspect of the care of schizophrenic patients discharged from mental hospitals in London: the services provided by the general practitioner and the psychiatric out-patient clinics. It is not intended to investigate the efficacy of treatments or to discuss the advisability of treating these patients outside hospital.

#### Method

The study was carried out as part of a larger investigation into the problems of schizophrenic patients who return to their relatives or to lodgings after a period of time in a mental hospital. The 100 patients included in this study were men of whose impending discharge to addresses in the London area we were notified by the superintendents of eight London mental hospitals. The patients excluded were those whose stay in hospital was less than one month, those discharged to hostels, those over the age of 50, non-Europeans, and those in whom the diagnosis of schizophrenia was not confirmed by a psychiatrist from this unit who saw the patient before discharge. It is difficult to say how typical of discharged schizophrenic patients this population is; but in two important respects the patients were found to match closely the schizophrenics in the study made by Brown et al. (1961) of admissions to three hospitals. The age distribution for male patients under 50 is very similar, and the proportion of discharged patients readmitted within one year is almost identical-43% in this study and 45% in the study of Brown et al. (1961).

A sociologist (G.W.B. or E.M.M.) visited the patient's relatives immediately before his discharge and again a fortnight later in order to find out more about conditions in the home. Most of the information made use of in this report, however, was obtained a year later, when a further visit was made to the patient and relatives by the sociologist, and the patient's G.P. was interviewed by a psychiatrist (C. M. P.). All patients readmitted during the year were seen in hospital shortly afterwards, and their families were re-interviewed at that time in order to obtain details of the events preceding readmission. In addition, a check was made on the case-notes at the end of the year, and, where

necessary, further information was obtained by correspondence with the psychiatrist in charge of the outpatient clinic which the patient had attended.

**SCHIZOPHRENIA** 

At all the interviews at the end of a year an account was obtained of advice or treatment which the patient had received during the year, why this was given, and whether the advice was followed and the treatment carried out. Each consultation with the G.P. or psychiatrist was discussed and comments were invited regarding the treatment and any other help which they would have liked.

Four of the 100 were not traced. Of the remaining 96 patients, 15 were not seen at the end of a year, but in all these cases adequate information was obtained from their relatives.

#### Results

Of the 96 patients, 56 became worse at some time during the year, and 41 of them were readmitted at least once.

Details concerning the clinical progress of the patients studied and the way in which this is affected by social factors have been given elsewhere (Brown, Monck, Carstairs, and Wing, 1962).

## Patients seen by their G.P. or Psychiatrist

Seventy patients were seen by a G.P. in the course of the year (62 in connexion with their mental state) and 56 were seen by a psychiatrist in an out-patient clinic; 46 saw both G.P. and psychiatrist. Eleven were not seen by any doctor; five of these were readmitted direct to hospital by the police, and only two remained well throughout the year. (In 2 of these 11 cases the G.P. had been kept informed by relatives of the patient's progress.)

Fig. 1 shows the proportions of patients who attended their G.P. or out-patient clinic (or were attending regularly at least once in six weeks) as a proportion of the total not yet readmitted each month. During their first month out of hospital 75% attended one or both doctors, the proportion falling rapidly during the first five months but then reaching a plateau; 55-60%attended during the rest of the year. This drop was largely due to patients attending for drugs or medical

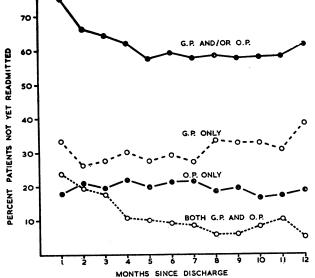


FIG. 1.—Patients not yet readmitted by the beginning of each month—proportions attending G.P. and/or psychiatric outpatient department.

certificates only as long as they were out of work. While the proportion going only to out-patient clinics remained constant at about 20% of those out of hospital, there was a steady decline in the proportion attending at the same time both an out-patient clinic and their G.P. This decline was partly balanced by a rise in the proportion attending only their G.P., and probably results from the discharge from the out-patient clinics of those patients who seemed to be making satisfactory progress in the hands of their G.P.

The load on the G.P.—This can be assessed in terms of either time or trouble. It does not seem likely that many G.P.s have more than two or three schizophrenic patients attending for treatment at present, but this is a situation which is likely to change during the next few years. Table I shows the number of consultations relating to the patient's mental state which took place during the year between G.P.s and schizophrenic patients or their relatives. Since most of these consisted of brief interviews in order to repeat a prescription and report progress, the load in terms of time cannot be said to be great: only 22 patients had 10 or more consultations. Twenty-seven saw their G.P. regularly during their time out of hospital and only 9 of these were readmitted. Difficulties were particularly apt to arise when the patient's mental state deteriorated, as it did in 56 cases ; and on those occasions it was usually the G.P. who was involved rather than the psychiatrist. Thus among 31 patients who were out of hospital for more than eight weeks before readmission the number attending a G.P. rose from 6 at the beginning of this period to 21 during the two weeks preceding readmission, whereas the corresponding figures for attendance at a psychiatric out-patient clinic were five and eight. G.P.s were called to the home on 31 occasions as a result of crises which had arisen, and were responsible for arranging 18 of the 52 readmissions which took place (involving 41 patients).

The load on the psychiatric out-patient clinics.—This load was less than that on the G.P.: 56 patients attended at some time during the follow-up year—45 for purposes of follow-up and maintenance of drug treatment (usually referred by the hospital at the time of discharge) and 11 on account of deterioration of mental state (usually referred by the G.P.). Table II shows the numbers of

 TABLE I.—Consultations Between G.P. and Patient or Relative

 About Patient's Mental State

No. of consultations:	0	1	2-4	5-9	10+	Total
No. of patients	26 27	6 6	26 27	16 17	22 23	96 100

TABLE II.—Attendance at Psychiatric Out-patient	Clinics by				
Patients or Relatives .					

No. of attendances :	0	1	2-4	5-9	10+	Total
No. of patients concerned % of total patients	40 42	10 10	24 25	11 11	11 11	96 100

psychiatric out-patient attendances by patients or their relatives during the year. Of the 56 who attended, 13 did so regularly throughout the year, 12 for 4–11 months, and the remaining 31 for three months or less. Only 7 of the 20 who attended regularly throughout their time out of hospital were readmitted.

#### Action taken by G.P. and Psychiatrist

Action is considered in terms of (1) the type of action taken, (2) the person initiating the action, and

(3) the person implementing it.\* In this way it is possible to determine the different roles of the G.P. and the psychiatrist in caring for these patients.

**SCHIZOPHRENIA** 

Although a large number of types of action are possible, in practice they can be reduced to three: (a) administering drugs, (b) advising and supporting, and (c) referring to other agencies.

Drugs Given .-- Drugs constitute the principal form of treatment employed and were prescribed at some time during the year for 79% of the patients in the series: 94% of those who attended an out-patient clinic and 82% of those who saw their G.P. in connexion with psychiatric problems were given at least one drug during the year. While most of the action taken with regard to these patients was implemented by the G.P., he was responsible for initiating relatively little. Thus, out of 120 courses of a drug prescribed at some time during the year, the G.P. was the initiator of only 23 but the principle prescriber of 78, most being initiated by the hospital psychiatrist at the time of the patient's discharge. Drugs given for the maintenance of the patient's mental state were usually initiated by the psychiatrist at the time the patient left hospital and continued by the G.P. On the other hand, drugs given for relapse were usually both initiated and prescribed by the G.P. and not by the psychiatric out-patient clinics. Thus the psychiatrist was largely responsible for directing the treatment of the patient when he was discharged, but the G.P. had to cope with him when he relapsed.

In view of the fact that most of the drugs initiated by the G.P. were given because the patient had relapsed, it seems reasonable to expect that the drugs given would be major tranquillizers (which are generally regarded as the most suitable treatment for relapse in schizophrenic patients) and that larger doses would be employed than in the day-to-day maintenance of the discharged patient. In fact, this was not the case. Only 11 out of 21 of the drugs initiated by the G.P. were major tranquillizers, whereas these accounted for 88 out of 96 of those initiated during the whole year by the hospital and out-patient departments. And, although the drug was given in high dosage† in 32 of the 96 treatments initiated by the hospital and out-patient departments, high dosage was used by the G.P. in only 3 out of 27 cases.

Discussion, Advice, and Support.-In all, 26 suggestions by the G.P. were recalled by 20 patients: 12 concerned the patient's occupation and were most usually advice to find a job or return to work; six men were told to ignore their symptoms or stop worrying; and a further six were advised where to live. It was unusual for a G.P. to repeat his advice more than once (except with regard to drugs or readmission to hospital), and few attempts were made to obtain the co-operation of the relatives in bringing about the changes suggested. It was not possible to interview all the psychiatrists who had seen the patients in the course of the year and no attempt was made to ascertain the advice and support which they gave. Group psychotherapy was given to one patient.

Referrals.-Of the 62 patients who saw their G.P. in connexion with their mental state, 33 were referred to other agencies, usually with the object of getting the patient admitted to hospital. Of these, 11 were referred to the duly authorized officer (who arranged their admission), 7 were referred direct to the mental hospital, and 12 were referred to psychiatric outpatient clinics. Four domiciliary consultations by psychiatric consultants were requested, and these resulted in the admission of three of the patients. Referrals by out-patient clinics occurred 19 times: 11 involved readmission to a mental hospital, and 8 men were referred back to their G.P. and discharged from further out-patient attendance. The remaining 23 readmissions were arranged by the patient (5), a relative (10), or the police (8). (The police were also involved with five patients who spent some part of the year in prison.)

To sum up, the psychiatrists recommended tranquillizing drugs for the majority of patients discharged from hospital and saw many of them at infrequent intervals during the year, but had little to do with treating relapsed patients or arranging for their readmission. The G.P.s, on the other hand, saw the patients much more frequently, prescribed drugs which had usually been recommended by the psychiatrist, and were the principal people involved in initiating fresh treatment and arranging readmission when the patient relapsed.

# Extent to Which Treatment is Carried Out

Drugs.-Examination of the quantity of drug issued by the G.P. and careful questioning of patients and relatives enabled a decision to be made about whether the drug had been taken as directed in nearly all cases. Table III shows the results of this assessment. Almost half of the courses of a drug prescribed (53/120) were probably not taken as intended by the doctor. The commonest finding was that the drug had been terminated prematurely (26/53), and this often occurred when the patient returned to work or when the supply given him at discharge ran out. In fact, all but 2 of the 26 patients stopped taking the drug within a month of discharge and a further 10 probably never took it at all. This is clearly seen in Fig. 2, which shows the number of patients receiving treatment in the form of drugs and the number readmitted to hospital (where it is assumed that drugs are given) at the end of each month. Out of 96 patients, 68 were sent out on drugs at the key discharge, but within two months 27 had given them up. Thenceforth, although the number taking drugs as out-patients continues to drop, this fall is accounted for by the number re-entering hospital.

It was difficult to establish why patients who had stopped the drug had done this. A small proportion (7/55) complained of the side-effects and all claimed that they did not need drugs. In only two cases was

Table	IIICourse	s of	Drug	<b>Prescribed</b>	During	the Year	and
	Whether 2	Taken	or No	ot (76 <b>P</b> atie	nts Invo	lved)	

	No. of Courses	% of Total Courses
Drug* definitely taken as ordered	30 30	$25 \\ 25 \\ 50$
,, taken but definitely not as ordered ,, probably not as ordered ,, definitely not taken at all ,, probably not taken at all Not known	33 10 4 6 7	$28 \\ 8 \\ 3 \\ 5 \\ 6 \\ 44$
Total courses of drug prescribed	120	100

\* When more than one drug was prescribed each is counted separately.

<sup>\*</sup>An "action," as used here, denotes any treatment, advice, or referral initiated or implemented on the patient's behalf by the G.P. or psychiatrist (either in the out-patient department or the mental hospital at the time of discharge). It does not include repeat prescriptions for drugs or adjustment of drug dosage.

<sup>†</sup>High dosage was previously defined for each drug by reference to the literature. Thus for chlorpromazine any dosage exceeding 350 mg. daily loading dose or 250 mg. daily for maintenance is taken as "high."

the refusal obviously symptomatic. The opinion of workmates, prejudice against pill-taking, indifference of their relatives, and failure to appreciate the need for continued medication probably accounted for most of the failures.

Drugs initiated or prescribed by the G.P. were taken neither more nor less consistently than those initiated or prescribed by the psychiatrist, but it made a great difference whether the taking of the drug was supervised: 14 (82%) of the 17 patients whose drug administration was supervised by a relative or friend

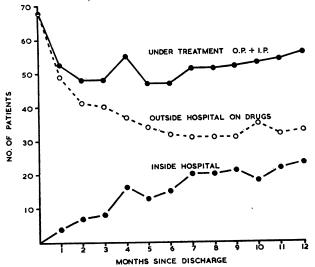


FIG. 2.—Patients receiving treatment for their mental state either inside or outside hospital at end of each month.

took their drugs as ordered, compared with 26 (46%) of the 56 not supervised.<sup>‡</sup> These results remain significant if patients who returned to hostels or lodgings and those who did not take the drug at all are excluded.

Advice.—It was difficult to assess the outcome of general advice given by the G.P. At a rough estimate it would appear to have been taken in about half of the cases (11/26).

*Referral.*—Patients were no more inclined to take their doctor's advice regarding referral than they were with regard to other matters. Out of 16 patients advised by their G.P. to attend an out-patient clinic 12 agreed to go, but two of these failed to keep their first appointment. While two-thirds of the readmissions were voluntary, in the remainder the patients had to be certified (17/52).

# Comments by G.P.s and Patients and Relatives

In the end-of-year interview the informants were invited to comment on the services provided for these patients during the course of the year. Analysis of the answers given revealed certain broad areas of dissatisfaction.

G.P.s complained frequently of lack of liaison between the psychiatric services and themselves (37 comments from 24 G.P.s). Fifteen complained of the hospital's failure to notify them of the patient's discharge, and this was confirmed by examination of the hospital notes in 12 cases (10 concerned patients discharged from two of the eight hospitals). Dissatisfaction with the contents of the discharge letter was expressed by 10 G.P.s,

particularly the lack of any advice concerning what to do if the patient relapsed. Seven G.P.s desired an easier and closer contact with the psychiatrists, and the mental health services were compared unfavourably with the maternity services in this respect.

A further 24 G.P.s commented on the care provided by the hospital. Thirteen thought that after discharge the patient should have been visited by a psychiatric social worker who could help with regard to social and occupational rehabilitation. (In fact, a social worker visited the patient's home during the year in only four cases.) Among various other recommendations there were three concerning the provision of hostel accommodation for psychiatric patients and three suggesting the provision of special occupational rehabilitation units for them.

Twelve G.P.s disapproved of the psychiatrist's decision to discharge the patient—usually because they did not think that the family were capable of dealing with him.

Patients' and relatives' comments were more varied and less specific. Out of 81 comments 27 concerned the part played by the G.P., and 11 of these were criticisms of his attitude or his ability to cope with psychiatric disorders. Four relatives complained that their G.P. had refused to visit the patient at home; in each of these cases readmission had been necessary shortly afterwards. Four comments by patients were obviously delusional.

The psychiatric service came in for criticism 26 times, though few comments occurred more than once. Three relatives and one patient complained of delay in arranging readmission, and the attitude of psychiatrists and staff was criticized in three cases. Two patients were bitterly resentful towards the psychiatrist, who had advised them and their fiancées against marriage.

Nineteen patients made comments concerning the Labour Exchange, and these included nine who thought that the Labour Exchange should have been able to find them a suitable job and six who were dissatisfied with the jobs that had been found for them. They said they had stopped attending the Labour Exchange and drawing unemployment benefit because they feared they would be penalized for refusing the jobs offered.

## **Conclusions and Discussion**

Most of these schizophrenic patients received some psychiatric care from their G.P. or from a psychiatrist during their first year out of hospital. Nearly all, including those who had not sought help, still had definite psychiatric symptoms when interviewed at the end of a year (or on readmission to hospital). While 70 patients saw their G.P., only 56 attended a psychiatric out-patient clinic, and over half of these were seen fewer than five times. Hence the main responsibility for the day-to-day care of the discharged schizophrenic patient rested with his G.P. Although the hospital was usually responsible for initiating treatment on discharging the patient, it was usually the G.P. who initiated treatment when the patient relapsed and who was expected to cope with crises at home.

The major tranquillizing drugs were much the commonest method of treatment employed by the hospital, but there was some reluctance among G.P.s to initiate their use.

The finding that 44% of the drugs prescribed were probably not taken as ordered may be explained in

<sup>‡</sup>Only the first drug prescribed for each patient is taken into account in this calculation, so that no patient is counted more than once.

various ways. Comparable figures come from several studies of out-patients with tuberculosis for whom paraaminosalicylic acid was prescribed (Simpson, 1956; Dixon et al., 1957; Luntz and Austin, 1960). These authors used a urine test to discover whether out-patients were taking their drugs or not. They found 24-50% of "defaulters," compared with 25% in our series among the patients who attended an out-patient clinic each month. Thus schizophrenics are not the only patients who cannot be relied upon to take drugs without supervision.

No doubt the situation could be improved. A simple urine colour test has been developed (Forrest and Forrest, 1957) for the phenothiazine drugs, and this can be carried out by a nurse in out-patient clinics. In this study schizophrenic patients more often took their drugs when the administration of these was supervised by a relative. More could be done while the patient is still in hospital to instruct him and, more particularly, his relatives about the importance of drugs. A crucial time for the continuance of his treatment occurs, for example, when he returns to work. He may find it difficult to attend an out-patient clinic-93% of the clinics in Greater London are held during working hours (King Edward Fund for London, 1961)—and he often stops taking his drugs for fear that his workmates will find out about his recent illness. At the same time he may be exposed to a new environment with all the stresses which accompany the formation of new social relationships. It is at this time that relatives can be most helpful by seeing that the patient takes his drugs and by reporting his progress to the G.P. and/or psychiatric clinic.

Unfortunately it is seldom possible to obtain a reliable account of the home situation from the patient himself. and several patients in this series were causing trouble at home while appearing perfectly normal and denying all symptoms at the doctor's surgery. Relatives can help considerably by keeping the G.P. and psychiatrist informed of the home situation, and there is a lot to be said for the doctor seeing the relative as well as the patient regularly in the out-patient clinic or surgery. In addition, home visits may be necessary in order to obtain an overall impression of home conditions when the patient or relative stops attending for follow-up. In our study, however, it was rare for psychiatric social workers, health visitors, or mental health officers to visit the home, and the shortage of social workers in London makes it unlikely that for some years to come out-patient clinics or local authorities will be able to provide all that are needed.

The G.P. might well play a larger part than now in visiting the home, helping the relatives, and establishing a relationship of trust and confidence with the patient; it may be that, even if alternatives are available, the G.P. will prove to be the most suitable person to supervise and support patients and families. If he is to play a large part in community care it is important for him to receive more help from the psychiatrist. A closer liaison could be facilitated if the practice in some areas where G.P.s meet the psychiatrist at regular intervals for discussion of cases was more widely followed. Relapse will be a less serious problem if the G.P. is aware of the risk and has been advised what to do if it occurs. The advice need not be one-sided, and it is equally probable that the G.P. can throw some light on the causes of a relapse when it occurs. In either case the central issue is one of liaison.

#### Summary

Certain aspects of the care received by 96 male schizophrenic patients during the first year after their discharge from eight mental hospitals in South London are described.

A general practitioner or a psychiatrist in an outpatient clinic saw 90% of the patients during the year.

While mental hospitals and out-patient clinics were responsible for initiating most of the treatment required for maintaining the patients' health, it was the general practitioner who played the major part in dealing with the crises and relapses that occurred in over half the cases.

Drugs were almost the only form of treatment employed, and the major tranquillizers were used less often and in smaller dosage by the general practitioners than by the psychiatrists.

Of the drugs prescribed, 44% were probably not taken as intended. When administration was supervised by a relative the proportion of patients failing to take the drug as ordered was 18%.

Criticisms of the psychiatric service by G.P.s were particularly concerned with the lack of liaison between them and the mental hospitals and the need for social workers to visit patients in their homes.

It is concluded that the G.P. plays an important part in the care of the discharged schizophrenic and that closer co-operation between G.P.s and psychiatrists will be to their mutual advantage.

Our thanks are due to Professor G. M. Carstairs and Dr. J. K. Wing for carrying out the psychiatric examination of the patients studied and for much other help and advice. We also thank the eight medical superintendents and 99 general practitioners whose co-operation made the study possible.

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"Increasing demands on the Health Service are being met by some part-time reinforcement of the staff. The medical officer has not needed to send a student to a sanatorium on account of tuberculosis of the lung for three years now. Mental disturbance, however, does not show the same welcome disappearing trend. Seventy-five students were classified under this heading during the year-an average number. Seven were admitted to hospital; ten were known to have failed, postponed or abandoned their courses. There was one suicide, which occurred during a vacation. While, individually, these cases are tragic and 'wasteful,' and therefore all the individual medical and academic attention that can be given to students in the hope of forestalling breakdown is justifiable, nevertheless the numbers are small in a community of 4.500 students, and should not be seen out of proportion. In the university adventure a large number of lively maturing minds are at risk, and most of them thrive on the challenge. One other student died from a rare form of cerebral haemorrhage, and, most regrettable of all, two were killed in road accidents." (University of Birmingham Report of the Vice-Chancellor and Principal for the Calendar Year 1961.)