has recently appeared in many cough mixtures. It is less toxic than codeine, has fewer side-effects, can be given in smaller dosage, and is no more likely to cause addiction; it probably represents a real advance in therapy. Pholcodine linctus (*B.P.C.*) is now in the *B.N.F.* Dihydrocodeinone bitartrate, prescribing of which is restricted by the Dangerous Drugs Act (*D.D.A.*), is altogether more powerful than codeine weight for weight, but should be used sparingly if addiction is to be avoided.

Methadone ("physeptone"), while not an opium derivative, deserves special mention as a cough suppressant. It may be prescribed as methadone linctus (*D.D.A.*, *B.N.F.*).

Antispasmodics and Antihistamines

Of the antispasmodics, stramonium, which relies for its effect upon hyoscyamine and atropine, is falling into disfavour. Ephedrine is still very much to the fore, and many modifications such as desoxy- and phenyl-ephedrine HCl and ephedrine combined with resins are being introduced. It is certainly an efficient antispasmodic, but may cause thumping of the heart, faintness, and sleeplessness. Theophylline and theophylline ethylene diamine (aminophylline) are steadily gaining in popularity. Until recently, they have really been effective only when injected intravenously or inserted as a suppository, but oxytriphylline, or choline theophyllinate ("choledyl"), seems to be almost as good when taken by mouth. The limiting factor in dosage is gastric irritation, but 200 mg. of choline theophyllinate thrice daily is usually tolerated for long periods and twice the dose for a few days.

These drugs are rarely given singly for the relief of cough, though they are often prescribed in cough mixtures, tablets, and sprays. A recently advertised spray contains ephedrine, hydrocortisone, an antihistamine, neomycin (to combat Gram-positive bacteria), and polymyxin B (to combat Gram-negative bacteria), and a tablet contains a barbiturate, ipecacuanha, ephedrine, caffeine, and aminophylline, with a view to producing mental sedation, decongestion, expectoration, and bronchodilatation. Such polypharmacy may be deplored, but at least most of the ingredients are known to have beneficial effects when properly used. They may alleviate cough among other symptoms in minor acute respiratory infections, which are by nature of short duration.

Inhalations

Perhaps the most desirable property of steam inhalations is that they should have a pleasant smell, for their main virtue is the expectorant effect of hot, moist air. Fortunately a large range of substances is available; most of them are extracts of trees and plants and have mild irritant and antiseptic properties. Amongst the best known are menthol, eucalyptus, thymol, benzoin, and creosote. For occasional use, inhalation from a jug with a towel over the head is recommended, but is not suitable for young children. A better, but more elaborate, method is to place a screen around the top of the bed with sheets draped over it and then direct the steam from a bronchitis kettle towards the head of the bed. This produces a thorough penetration of the respiratory tract without causing a feeling of suffocation, and is applicable to the young and very ill. By clipping the sheets to the screen, soiling can be kept to a minimum.

Local Anaesthetics

Phenol has anaesthetic and antiseptic properties. In the form of phenol lozenges (containing phenol $\frac{1}{2}$ gr. (32 mg.)) a temporary local effect may be obtained. It has the reputation for allaying the anxieties of opera singers with ticklish throats. Benzocaine compound lozenges (*B.P.C.*) may also be used for this purpose. When pain rather than irritation is the cause of coughing, a powder containing equal parts of orthocaine and benzocaine may be sucked through a glass tube, particularly before meals. In the last resort an amethocaine lozenge, which has ten times the activity of cocaine, may be tried.

Conclusion

So long as people cough—and the causes range from excessive smoking to carcinoma of the larynx—cough mixtures will be demanded. Medical practitioners rely to a great extent upon proved remedies which have survived successive axes in the *British National Formulary*. These include simple liquorice lozenges, hot-water mixtures, inhalations, expectorants, antispasmodics, antihistamines, and sedatives of varying strength. At present many unrelated drugs which have, among other properties, a bronchodilator effect are being tried; preparations of theophylline which can usefully be taken by mouth are being synthesized; anaesthetics both local and central are being tested; the effect of ion-exchange resins upon the rate of release of drugs is being explored; and some newer sedatives such as pholcodine and methadone are proving their worth. In the meantime the public is waiting for the day when we can "with some sweet oblivious antidote cleanse the stuff'd bosom of that perilous stuff which weighs upon the heart."

WHY ADMIT TO A MENTAL HOSPITAL?*

BY

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Those of us who have worked in mental hospitals for many years can remember a time when we had to use all our persuasive powers in order to get patients to admit themselves for treatment on a voluntary basis. But as every aspect of mental hospital life has been steadily upgraded—improved food, clothing, and furniture; considerably reduced restrictions (for example, very few locked doors), modern specialized treatments, better facilities for occupation and recreation, and so forth—many of us have found our admission rates growing like the proverbial snowball. At first we were gratified, for we were given the opportunity of treating mental illness in its earlier stages, when prospects of recovery are better; and the ever-increasing readiness of patients to be admitted was proof of the improvements in every aspect of mental hospital life for which we had striven. But latterly many of us have begun to wonder whether the journey

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to the mental hospital is always necessary, especially now that we are faced with staff shortages and overcrowding. The extent of the problem varies from area to area, but is widespread in the country. In the Park Prewett Group the direct admissions since 1929 are shown in the Table.

Admissions to Park Prewett Hospital

Year	Total	Certified	Voluntary	Temporary	Informal
1929	204	204	—	—	—
1937	332	244	82	6	—
1948	578	203	363	12	—
1949	666	183	463	20	—
1950	713	172	530	11	—
1951	755	186	551	18	—
1952	833	221	578	34	—
1953	929	217	686	26	—
1954	975	212	727	36	—
1955	1,159	292	731	35	101 (for 3 months)
1956	1,248	298	453	45	452
1957	1,254	228	493	35	498

About 7% are readmissions in the same year.

It will be seen that in a period of 28 years the total admission figure has more than sextupled. This is not explained by growth of population or by increased incidence of psychological disorders. The total number of certified patients has not in fact altered significantly. But since 1931, when the Mental Treatment Act came into force, there has been a continual rise in the voluntary admissions (more latterly, nearly half of these are informal). The great majority of these are patients with psychosomatic disorders, neuroses, and early psychoses who could not have been admitted before 1931 because they were not certifiable.

In the early 'thirties the procedure for voluntary admission was simple: the general practitioner rang up the medical superintendent, who readily agreed, feeling no doubt glad and proud that a patient was actually willing to come in without compulsion. But we have become too popular, and have begun to pick and choose our admissions as general hospitals do, demanding (except in an emergency) to assess the case first at an out-patient clinic. The Royal Commission Report (1957) goes even further. It is there recommended (sections 381-3) that when compulsory powers are used there should be no order for admission, and that the hospital should be able to refuse admission.

In 1958 the total admissions were 1,234. It will be seen, therefore, that the figure has remained stationary for three years in succession. The flood has been stemmed, and I would give most credit to the steady expansion of out-patient facilities in our area, as the following figures show:

Year	No. of Out-patient Centres	No. of Weekly Sessions	New Patients	Total Attendances
1948	4	6	174	783
1950	6	11	447	2,079
1955	6	14	619	2,983
1958	6	16	724	3,768

Indications for Admission

Indications for admission can be classified under two headings: (1) the treatment required can be carried out only on an in-patient basis; and (2) the patient is dangerous to himself or others, or is a severe trial to relatives and/or society because of his mental illness.

In the first group we include insulin shock therapy for schizophrenia, modified insulin for acute anxiety states, intensive exhibition of tranquillizing drugs,

prolonged narcosis, malariatherapy, E.C.T. for depression where complications are feared, and leucotomy. Occasionally it may be advisable to admit a patient for intensive psychotherapy—for example, in obsessional states—but this should be avoided, and when psychotherapy is the essential form of treatment out-patient arrangements are best. In the hospital all sorts of difficulties occur when lengthy psychotherapy is administered. The few patients who receive such treatment naturally take up an inordinate amount of the psychiatrist's time. Other patients become jealous, and the few who receive treatment become jealous among themselves. Moreover, transference often retards discharge interminably. Finally, one should avoid interrupting the career or occupation of any person, and it is best if he lives as normal a life as possible whilst undergoing lengthy psychotherapy.

In the second group will be included not only those mental disorders for which some fairly specific treatment is indicated, but also many others, such as chronic schizophrenia and various paranoid and dementing states.

In view of the ultra-optimistic opinion expressed in some circles that mental hospitals can be emptied by an encouragement of community care, it must be emphasized that many patients are still quite incapable of living in the world outside because their behaviour would prove too disturbing. We have no right to demand that relatives should give up their ordinary way of life and become psychiatric nurses of the mentally sick; moreover, the strain of looking after such cases can be most trying. Sometimes we are asked to admit a patient because, as we may be informed, "he is driving other members of the family scatty."

Case 1.—A woman aged 60, with recurrent hypomania, had been admitted to hospital five times in five years. She was a voluntary patient, and after a short stay talked of leaving the hospital. Her two married sisters arrived to interview me and asked whether the patient could be compulsorily detained. They reported: "When she was home we had one month of hell. Is it right that she should be able to drive us round the bend? She sings at the top of her voice early in the morning and the neighbours complain. She stays in bed till 5.45 p.m. and grumbles at the food we prepare. Our husbands have been called back from work to deal with her rowdiness."

In such cases one should admit the patient even if only to give exhausted relatives a respite for a while.

At the same time we must firmly insist that merely because a person is suffering from a mental illness is no reason for admission to or retention in a mental hospital. If no in-patient treatment is indicated and if he is harmless, he should remain at home. This is especially true of the schizophrenic, who still accounts for at least 50% of our mental hospital population. Bleuler's (1924) advice concerning schizophrenics, given some 40 years ago, is still true: "They should be discharged as soon as possible, because later they are gotten rid of much less easily; because not only the patients but the relatives still more adapt themselves too quickly to the sequestration . . . the supreme remedy which in the majority of cases still accomplishes very much, and sometimes everything that can be desired is training for work under conditions that are as normal as possible."

From the Research Rehabilitation Unit at Park Prewett Hospital we have discharged many chronic

schizophrenics, some still hallucinated, who have succeeded nevertheless in holding down gainful occupations in an independent manner (Atkin, 1958).

Not a Place of Rest

An old erroneous idea that "rest" is good treatment for neurotic conditions still persists. I find patients are still told on occasion that they need a period of rest; if this is really believed they should be sent to a quiet convalescent home, not to mental hospitals. The latter are very much hives of intense activity, where a "total push programme" of active treatments and full occupational and recreational programmes are organized to help the patient regain his normal social capacities. Any tendency to use mental hospital beds for convalescent purposes or as a holiday centre must be sternly resisted.

Environmental Problems

In general, admission should be avoided when the essential trouble is in the patient's environment—for example, marital disharmony, bad housing, loneliness, or financial or occupational difficulties. The patient may settle in the hospital and never wish to leave, the admission serving the purpose of a form of happy escapism. After discharge, fairly rapid readmissions occur because the vital problem has remained unsolved. In such cases out-patient psychotherapy, with frequent visits by a psychiatric social worker and the help of various welfare officers, is indicated rather than admission. However, an exception will have to be made now and again. There are occasions when it is proper to advise the patient to *reculer pour mieux sauter*: the patient must have a respite from particularly distressing circumstances before he can gather forces for a readjustment.

The improved conditions in mental hospitals have served the purpose of drawing attention by contrast to the lack of desirable social and recreational facilities in some rural areas. A weekly cinema and dance, ward parties, musical concerts, tennis and badminton, an art studio, and so forth may not be available in the patient's native village, but are free and ready in the mental hospital. Quite a number of patients volunteer to say that they will feel lonely and will miss the social club and many recreational activities of the hospital after discharge, and there are cases where patients have delayed departure for such reason.

Out-patient Treatment

Undoubtedly an increase of out-patient facilities, more sessions, and more centres can reduce the flow of in-patient admissions. Most cases of depression who require E.S.T. should be treated at such centres, and too many are still being admitted unnecessarily. Psychotherapy, as already mentioned, should be available at all out-patient centres in a more generous fashion. If patients were more systematically followed up after discharge, many relapses and readmissions would be prevented.

Senile Cases

An unduly large number of the more aged are being admitted. The main reasons are sociological. Relatives are no longer able or willing to look after their elders when various grades of deterioration or dementia develop.

A physical illness in the senile may make the patient a much more difficult nursing proposition at his home. He may become uncooperative, cantankerous, negativistic, or may develop a temporary confusional or paranoid reaction. Such cases are not readily welcomed in general hospital units, and so find their way through the "ever open door" of the mental hospital. It is difficult on humane grounds to refuse admission, for the patient obviously cannot be cared for at home. The real problem, however, is faced when the senile patient is due for discharge, whatever the mental trouble was. One finds that the original family room or lodging is no longer available; or if he has come from a home for old persons or a hospital for the chronic sick, the vacancy has meanwhile been filled. In some cases the waiting-list for admission to old persons' homes runs to 100 or more, and it may take many months before a senile patient can be transferred. Whenever possible it is as well to ensure that someone will be prepared to receive back the senile person when the temporary mental reaction has receded. More accommodation in chronic sick hospitals and old peoples' homes is urgently necessary.

Psychopathic Personalities

The ordinary mental hospital is not the proper place to treat the more severe types of psychopathic personality, and admission should be avoided. Some inadequate types tend to settle permanently; the aggressive types disturb other patients, and either leave quickly or are told to leave; the alcoholics fail to co-operate; the wanderers depart as it suits them. From one point of view, the psychopath finds himself more free in the hospital than in the social world outside. In ordinary life, if he becomes violent or drunk, steals or insults others, pesters women, or fails to do any work, there are apt to be retaliations by society, sometimes with the aid of the police and the law. But in the mental hospital there is no question of punishment. All we can do is to use our persuasive powers to influence the psychopath to behave reasonably well. If he persistently refuses, the alternative is to discharge him—the same procedure which a general hospital follows when a patient refuses to co-operate.

The modern mental hospital, with its open doors, minimal regulations, and absence of authoritarianism, cannot enforce any sort of discipline on the psychopath. If he refuses to get out of bed at the proper time, fails to attend the occupational therapy centre, goes off loafing to the nearest town, returns intoxicated in the early hours of the morning, indulges in sexual intercourse with female patients, steals from other patients' lockers, and so forth, the best we can do is to discharge him and blacklist his readmission. What are urgently needed are special units for the treatment of these difficult psychopaths, institutions where they could be detained and where a regime of regular hours of work could be enforced. As it is, they wander in and out of numerous mental hospitals and prisons, wasting the time of many doctors, psychiatrists, and social workers, and do no good to themselves or society.

Some psychopaths become quite expert in the procedures of admission and discharge, and learn all the tricks required. One of the commonest stratagems for admission is for the psychopath to call on a local doctor, duly authorized officer, or the police, state that he has

no job, no lodgings, no money, feels depressed, fed up with life or suicidal, and that he has been treated previously in several mental hospitals. If this does not work, the patient swallows tablets—for example, aspirin or A.P.C.—and informs the police; the stomach is washed out at the local general hospital and the patient duly appears at the neighbouring mental hospital.

The following brief summaries of three cases illustrate some of the points raised.

Case 2.—A man aged 25 (antisocial, pseudologic, homosexual) was found wandering in the streets of a neighbouring town during the early hours of the morning. The police referred him because he appeared to be mentally depressed. On the second day of admission he became abusive and threatening. He gave a history of having been a patient in 10 psychiatric hospitals during the previous five years. His criminal history dated from the age of 12, and he had been an inmate of an approved school, Borstal, and three prisons. He admitted exaggerating, if not simulating, mental symptoms. He left after a stay of six days. We received inquiries two months later from a mental hospital in another county, where he had managed to get himself admitted.

Case 3.—A married woman aged 31 (alcoholic) had a history of six admissions during the previous four years. In these institutions she was reported as having been hostile, uncooperative, wandering off to the nearest public house and getting drunk, discharging herself against medical advice. Three of the hospitals refused readmission. At Park Prewett she repeated the same pattern.

Case 4.—A man aged 25 (antisocial, sexual deviant) had a history of three previous mental hospital admissions. He had four convictions for petty theft and one prison sentence. He was on the "caution list" of the Forces Help Society and R.A.F. Benevolent Fund because of getting money by false pretences. He was told that psychotherapy would be prolonged, so he left after a stay of five weeks. Eight months later he presented himself without a doctor's letter, having assumed a different name and giving a London address. Readmission was refused. Two years later he was reported to be in the hands of a probation officer, charged with being "drunk and disorderly."

Summary

Admission rates to mental hospitals have rapidly risen, especially since 1948, but it would seem that some of the journeys are not really necessary. The figure could be reduced if the following measures were adopted: (1) Patients should be admitted only when there is one of two clear indications: (a) the treatment required can be carried out only on an in-patient basis; and (b) the patient is dangerous or society cannot tolerate his severely disturbed behaviour. (2) Increase the out-patient facilities. (3) Avoid admitting "social problem" cases. (4) Provide more beds in chronic sick hospitals and increase Part III accommodation. (5) Organize special units for the detention and treatment of psychopathic personalities who exhibit a severe behaviour disturbance.

I would like to take this opportunity of thanking the Hospital Car Service which has enabled lengthy out-patient sessions for E.C.T. to be held at Pinewood Hospital (a non-designated unit since October 1, 1955) to cover a radius of some 30 miles.

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TESTING NEW DRUGS SOME OF THE DIFFICULTIES

[FROM A SPECIAL CORRESPONDENT]

The newly formed Association of Medical Advisers in the Pharmaceutical Industry organized a symposium on "Progress in the Evaluation of Drugs" which was held at the Royal Society of Medicine on January 22. It was attended by clinicians, statisticians, and pharmacologists, and medical research directors of the pharmaceutical companies.

Dr. T. B. BINNS (Glaxo Laboratories) prophesied that the number of new drugs found worthy of clinical trial would continue to increase. It was in everybody's interest that a drug should be accurately evaluated as soon as possible. It was our duty to uphold the highest standards for trials, and this meant scrupulous attention to detail. Dr. G. R. FRYERS (John Wyeth & Brother) took the chair.

First Dose in Man

Professor C. A. KEELE (London) discussed pilot or preliminary trials with special reference to analgesics. He drew attention to the difficulties and dangers of giving new drugs to man for the first time. These were, of course, less when the new drug was merely a modification of an existing compound; the serious dangers were when a completely new chemical group was being tried. The preliminary trial should be in two phases: trial in volunteers, then trial in patients. After this, if indicated, a large-scale controlled trial could be designed, using the information already obtained. Professor Keele usually calculated the dose which, from animal experiments, might be expected to be effective and then divided by 10 or 20 for the first human case. Normal subjects were chiefly useful for information on side-effects of drugs; therapeutic potentiality was commonly not well indicated—e.g., the response to a hypotensive drug on normals and hypertensives was usually quite different. If preliminary experiments suggested that large-scale trial would not be profitable it was still important to answer the question whether the series of compounds was yet worth pursuing. He advocated that the doctor in charge should have had a big enough dose of the drug to produce side-effects in himself before inviting volunteers. The double-blind technique was often impossible in initial experiments because of the possible dangers of a drug; also, side-effects often gave the game away when this valuable technique was used. He described how on one occasion he spent months working on a drug only to conclude it was not worth doing a large-scale trial, so it was abandoned. It was not always as bad as this, but haste was undesirable. The doctor only lost his reputation, but the patient stood to lose much more.

Basic Questions

Dr. J. KNOWELDEN (London) discussed the design of trials. There were four questions to be answered carefully: What disease? What treatment? What patients? What indices of measurement? Diagnostic difficulties could ruin a trial if not carefully allowed for. Differences in the incidence of paralytic poliomyelitis following immunization had been readily established, but not of the non-paralytic form. This was because of the impossibility of reliably diagnosing non-paralytic poliomyelitis clinically. It was a good thing to use more than one dose of a drug in a trial, as the risk of selecting a wrong dose if only one were used was substantial. Bias in selecting patients could prevent useful generalization from results of a trial if not allowed for. Ethical considerations, Dr. Knowelden said, required controlled trials. Casual, uncontrolled therapy was in his view unethical.