Questionaries were sent to 184 psychiatrists. The first question asked what they understood by psychotherapy. Most thought this term to be appropriate only when there was a deliberate attempt to treat the patient by psychological means, but only 55% believed that the main aim of psychotherapy was the removal of symptoms. Brief psychotherapy was regarded as less effective than prolonged treatment by 59% and 63% rated skills acquired in psychiatric practice as more important that the personal characteristics of the therapists.

The forms of psychotherapy used by the psychiatrists included psycho-analysis, explanation, reassurance, suggestion, and abreaction. Less than one-third of the group used desensitization and aversion therapy. Most were strongly influenced by the psycho-analytical approach, but only a small number of patients had been treated with psycho-analysis. There was little opposition to combining psychotherapy with drug treatment.

The most common indications for individual psychotherapy were anxiety neurosis and hysteria. Chronic neurotic conditions and character disorders were treated more frequently with group psychotherapy than by individual psychotherapy. The senior psychotherapists estimated their success rate as higher (66%) than their juniors (41%). Better social and educational adjustment was rated highest among the indicators of success. The majority of the replies were in favour of training by a system of supervision and apprenticeship, which is available in only very few centres.

Mowbray and Timbury believe that most of the arguments about the results of psychotherapy fail to recognize that it is effective in helping the patient in dealing with personal and social problems arising from his disorder. They conclude that psychotherapy cannot be compared with conventional medical treatments and that it is "a highly individual method of helping patients with their problems rather than of treating circumstances illnesses." But some doctors are better at this work than others because they know more about patients and their problems and the disorders from which these arise. This knowledge can be taught.

The realization that neuroses and personality disorders, and possibly even some psychotic conditions, are not diseases in the conventional sense has sometimes led to doubts about whether they fall into the doctor's province. Such doubts indicate a mistaken view of the doctor's function. Most doctors spend only a small part of their time killing bacteria, removing growths, repairing physical damage, and removing symptoms, though their training made them expect that they would be doing these things most of the time. Possibly some of the dissatisfaction of doctors in general practice stems from the discrepancy between what they expected to be their function and the realities of their work. Most of the doctor's time is spent in making his patients feel better, irrespective of whether their "dis-eases" are directly or indirectly due to identifiable noxious agencies. Henry Sigerist made this point clearly when he insisted that medicine is not so much a natural but a social science and that one of its main functions is to keep man adjusted to his environment as a useful member of society. In this view of the doctor's function there can be no doubt that psychotherapy belongs to the essence of medicine and that there is no need to be apologetic about it because it only helps the patient in coping with the problems arising from his disorders. More knowledge, experience, and skill are needed to do this well than to apply standardized treatments to curable diseases. This is why it is so important that a great deal of thought should be given to the methods, the teaching, and the evaluation of psychotherapy.

### Immunosuppressive Therapy in Persistent Glomerulonephritis

Cytotoxic drugs can benefit patients with the nephrotic syndrome. For instance, mechloethamine (nitrogen-mustard) was used as long ago as 1949. But they have drawbacks and dangers, so that when corticosteroids came in and were found to be helpful the cytotoxic drugs tended to fall from favour. Now that considerable experience with corticosteroids has been obtained the disadvantages of long-term therapy are apparent. In addition, many forms of glomerulonephritis seem to have an immunological basis. Consequently, interest is renewed in the cytotoxic drugs, which are known to have an immunosuppressant effect.

The newer preparations are safer and can be taken by mouth. The recent observations by Sir Macfarlane Burnet and his collaborators that cyclophosphamide can retard the development of lethal glomerulonephritis in strains of mice with a high incidence of spontaneous disease provide an encouraging experimental background to clinical trials. At page 853 of the *BMJ*, this week Drs. R. H. R. White and J. S. Cameron and Professor J. R. Trounce report the results of immunosuppressive therapy in thirteen children and five adults with the nephrotic syndrome. Fifteen had failed to respond to adequate steroid therapy and many were seriously ill. In addition to the nephrotic syndrome most of them had haematuria, hypertension, and renal insufficiency—signs which were also regarded as sinister by D. Cornfield and M. W. Schwartz. In addition, seven patients had anaphylactoid purpura, which generally carries a grave prognosis in association with the nephrotic syndrome. Renal biopsies showed proliferative glomerulonephritis in all patients, with severe changes in thirteen. The cytotoxic drugs given—azathioprine and cyclophosphamide—appeared to benefit 12 of the patients. Sustained improvement was commoner in the younger ones, and three with anaphylactoid nephritis apparently recovered completely. The function of the bone marrow was depressed in most of the children who improved.

In the light of these and other findings corticosteroids can no longer be considered the best treatment for all patients with nephritis, and therefore criteria for selecting those likely to benefit are needed. An initial trial of corticosteroids may be hazardous. White and his colleagues emphasize the dangers of these drugs in severe proliferative glomerulonephritis, ascribing the good results obtained in two of their patients at least partly to the early recognition of steroid resistance and the prompt change of treatment. It seems logical to give cytotoxic drugs early rather than late if, by suppressing immune responses, they can stop the development of permanent scarring.

Severe glomerular disease is easy to recognize in renal biopsy specimens. However, some of the patients of White and his colleagues had proliferative glomerulonephritis of...
only moderate severity yet refractory to steroid therapy, and with this type of lesion the predictive value of renal biopsy is uncertain. Immunofluorescent techniques\(^1\) have been tried out, but at present it seems that routine light microscopy is less liable to misinterpretation than immunofluorescence.

Another approach is through the study of serum complement levels. It has been known for more than half a century that the levels are low in acute nephritis,\(^2\) and they are persistently low in a few patients whose nephritis fails to heal and who die of renal failure.\(^3\) Recently C. D. West and colleagues\(^4\) found that serum levels of \(\beta_1\)-globulin paralleled those of total complement, and they described a group of children with persistent glomerulonephritis in whom the \(\beta_1\)-globulin levels remained low. Renal biopsy specimens showed severe "lobular" proliferative glomerulonephritis, with thickening of the capillary walls. C. A. Janeway and his co-workers\(^5\) reported similar findings, and they also showed that urinary losses do not account for the low levels of \(\beta_1\)-globulin, the cause of which is obscure. These observations suggest that this is an aetologically distinct disorder. Most patients with persistent glomerulonephritis do not have reduced levels, however, and a normal result with this test is of no prognostic value.

Measurements of the renal clearance of individual plasma proteins\(^6\) give a good indication of the severity of lesions.\(^7\) In fact they are probably as reliable as renal biopsy for predicting steroid response in the nephrotic syndrome. But they have the same disadvantage of predicting a good response less reliably than a poor one.\(^8\) Moreover, because the method is laborious and uses expensive antisera, it is unlikely to be widely adopted in hospital laboratories. However, J. S. Cameron and G. Blandford\(^9\) have recently reported comparable results using commercially available "immunoplates." Despite its lack of precision, this method is cheap, simple, and may in practice provide the clinician with a useful basis for selecting patients for further study.

All this information collectively represents a considerable advance in the understanding of progressive glomerulonephritis. But none of the methods used individually provides a perfect means of predicting corticosteroid resistance, and the search for a better test must continue. Though the initial results of immunosuppressive therapy are promising, carefully controlled investigations should next be carried out which will permit statistical evaluation of the results. Owing to the scarcity of suitable cases, collaborative studies may be needed for this purpose.

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**Shortage of Radiologists**

Most countries are short of medical men, and even in those countries that are relatively well off some branches of medicine are undermanned. Radiology is a case in point. An illuminating report has been submitted recently by leading radiologists to the Surgeon General of the U.S. Public Health Service.\(^1\) Since it applies equally well to Britain it is worth quoting at some length: "In the field of medicine, more than half of the population is subjected each year to radiological study, either through the use of x-rays or the administration of radioactive materials during the diagnosis and treatment of their disease . . . in the future, the radiological sciences are likely to play an even greater role in society . . . in 1960 over 89 million medical and 48 million dental x-ray examinations were carried out in the U.S."

In diagnostic radiology the consumption of x-ray film doubles every 13 years in the U.S. With the firm establishment of such procedures as rapid serial angiography, cerebral arteriography, and cine-fluorography, this rate of increase does not look like diminishing in the foreseeable future. These and other complicated techniques are increasing the need for radiologists. Although special techniques are used in fewer than 3% of all examinations, they occupy about 25% of the professional manpower in diagnostic radiology. Consequently it is estimated that the demands on staff are increasing by more than 7% per annum. In radiotherapy the increased demand is estimated to be about 2% per annum and in nuclear medicine 15%. The report goes on to say "there can be little doubt that there has developed in the radiological sciences a shortage of physician manpower of serious proportions." Between 1949 and 1964 the number of practising radiologists in the U.S. rose from about 2,900 to 6,900. If the present growth rate of clinical demands continues it is estimated that 20,000 to 25,000 radiologists will be needed by 1975.

The advisory committee to the Surgeon General investigated the reasons for the shortage of radiologists and analyses them as follows: (1) the unusual increase in demand for radiological services; (2) the inadequate number of new medical graduates; (3) the fact that only one-quarter of radiologists make up their mind what they are going to do during their student years, in sharp contrast to those entering such specialties as medicine and surgery; and (4) the little time set aside for teaching radiology in medical schools, and thus the average student finds little to interest him in radiology. The committee is appalled at the shortage of academic departments in radiology in the American medical schools, and those that exist need more financial support. Three main recommendations are made: first, to strengthen radiological instruction of medical students; secondly, to increase the number of academic radiologists in American medical schools; and, thirdly, to increase the number of practising radiologists in the United States.

All these problems apply as much, if not more, to Britain, where the planned development of radiology has been sadly neglected. Not a single undergraduate medical school in London has a chair of diagnostic radiology and there are only