Papers and Originals

Psychiatric Education during a Period of Social Change*

Sir DENIS HILL,† M.B., F.R.C.P., D.P.M.

Brit. med. J., 1969, 1, 205-209

Introduction

Great changes in the practice of psychiatry and in psychiatric education have occurred in this country in a generation. Throughout the latter part of the last century and the first decades of this one the Royal Medico-Psychological Association and many distinguished psychiatrists had individually argued the case against the isolation of psychiatry and the importance of making it a university responsibility. The objective at that time was to provide courses of instruction suitable to improve the vocational capacities of doctors working in mental hospitals. It was for this purpose that the various diplomas in psychological medicine were instituted. One must not forget that for nearly a century after the asylums had been built psychiatry was the specialist practice of the mental hospital doctor whose only work was with compulsorily detained patients. Compared with today, the field of study and inquiry and the responsibility of those who practised it were very limited. Psychiatry was concerned almost entirely with the diagnosis and management of psychotic illness, and the educational aims and objectives, such as they were, had only these in view. At this time neurosis was considered to be the responsibility of physicians and neurologists, if anyone at all. However, after the first world war teaching hospitals, particularly in London, began to appoint physicians in psychological medicine to their staffs, and to provide them with outpatient clinics and expect of them a limited amount of undergraduate teaching. These physicians were in the main recruited from a new class of "medical psychologists," whose orientation was towards dynamic psychopathology and whose training had been Freudian, Jungian, or eclectic. They had little or no interest in the general psychiatric scene as it was developing in the mental hospitals. Those who worked in the mental hospitals had very little part to play in the new teaching hospital departments which had been set up. Thus two subjects emerged, "psychiatry" and "psychological medicine," the latter enjoying the status of a teaching hospital subject.

Meanwhile the medical model for all illness which had developed so successfully at the end of the last century out of the anatomic-pathological concept of disease, and which had received such impetus from biological and in particular bacteriological discoveries, had come to dominate the scene of scientific medicine. There seemed to be no room for a view of disease process other than that which envisaged a specific pathogen. Although medicine was emerging from its "syndrome" period, there was no longer the preoccupation with man's nature, his behaviour as an individual, his needs, or his view of himself which doctors had thought important before medicine had entered its scientific period. Kraepelin had laid the foundations of a psychiatry based on the disease-entity theory of the medical model, and had provided a coherent and workable classification. Freud too in his early writings led many to believe that specific psychological traumata were the

causes of psychiatric illnesses. Both had been a great stimulus to psychiatric thought and practice. But the antithesis of opinion between the essentially physical and the essentially psychological nature and causation of psychiatric illness, developed and promulgated by the pupils and followers of these two great men, was seen most clearly in Britain between psychiatric practice as it developed in the mental hospitals on the one hand and in the teaching hospital departments of psychological medicine on the other.

Influence of Social Change

If those who had argued so forcefully the case for university participation in psychiatry at the beginning of this century were with us today, it might seem to them that their wildest dreams had come true. Perhaps, however, they would not have viewed the present position and our future prospects without anxiety. They would observe that psychiatrists have been called upon to accept responsibility for an ever-widening range of disorders and have tried to meet that challenge. They would no doubt be amazed that, while physical and psychological treatments have developed at an astonishing rate, their application remains empirical, their mode of action not understood. They have thrown little light upon the pathogenesis of mental illness, and knowledge of aetiology remains rudimentary. Moreover, methods to evaluate therapeutic efficacy have met with the greatest difficulties. Compared with public health, which achieved great distinction outside university medicine in the field of prevention, psychiatry has had little to offer in this area of a tangible kind. Our forebears would no doubt observe with satisfaction the changed attitudes to the mentally ill not only of the medical profession but also of the lay public. Yet they would see that the great changes which have overtaken psychiatry have not so much come from an increase in psychological or biological knowledge as from the fact that the subject, like so much else in medicine, has been carried along in a process of social change which medicine did not initiate and cannot control.

For centuries, while steadily acquiring knowledge about the biological nature of man and of the pathogenesis of diseases which afflicted him, medicine remained powerless to counter their effects and could do little to alter natural prognosis. Nevertheless the social role of the doctor was safeguarded by the public image of a benevolent and all-wise authoritarianism and this became necessary to medicine. This was a false image which the advent of scientific medicine has done much to undermine. Indeed, authoritarianism in all walks of life has become suspect and is no longer acceptable to an increasingly educated, sophisticated, and open society. Psychiatry, in passing from an age of authoritarianism made necessary by a lack of scientific knowledge, tended to become too abstract as soon as some knowledge became available. It tended to forget what actual human beings were like and tried to fit men to systems rather than systems to men. But with medicine as a whole it

* Inaugural lecture (abridged) given at Institute of Psychiatry, Maudsley Hospital, London, on 10 October 1968.

† Professor of Psychiatry, Institute of Psychiatry, London S.E.5.

could not resist the processes of social change in which human needs were given the priority for social action. For psychiatry the first effects of this change followed upon the passing of the Mental Treatment Act of 1930, after which mental hospitals were freed to accept voluntary patients and were permitted to set up outpatient clinics in general hospitals. It is noteworthy that in most that followed the initiative has not come from university medicine or university psychiatry but from the informed lay public and from those working in non-teaching hospitals.

The last 20 years, following upon the introduction of the N.H.S., have been marked by two very impressive developments for psychiatry. In the first place the exclusive role of the mental hospital has been progressively reduced and will diminish further. Although largely occupied by old people and the chronic sick, the number of beds in these hospitals is progressively declining—by 20,000 in a 10-year period. In their place psychiatric units have been set up in general hospitals, both teaching and non-teaching, throughout the country. In 1966 there were 70 general hospital psychiatric units, with between them 5,500 beds and a further 1,100 psychiatric beds in teaching hospitals in England and Wales.¹ This is a threefold increase in 12 years, but it is probable that in future the district general hospital serving all the medical needs of a defined population and closely linked with the general practitioner and local authority health and welfare services will be the model likely to be developed throughout the country. In this concept it is suggested the teaching hospital would become a specialized version of the district general hospital. There are few now who deny that the teaching hospital must serve the population in which it is placed. It seems very likely that in such hospitals, teaching and non-teaching, the main work of hospital psychiatry will be conducted in the future.

The second radical development in these 20 years has been the creation of university departments of psychiatry in all medical schools of the country, except Cambridge and several of the London schools. Within the next decade this should have profound effects upon undergraduate and postgraduate education. It must be remembered, however, that the majority of these departments created in the last few years are still in a stage of active development and are preoccupied with the many problems of undergraduate education. Their responsibilities towards postgraduate education and training have been well recognized, but their ability to mount full educational programmes is still limited. Moreover, they have been given the responsibility, particularly in the provinces, for advising about psychiatric care in the large communities in which they are situated. Above all they have the formidable task of integrating several rather disparate functions—the role of an academic department of psychiatry concerned with clinical practice in their teaching hospitals, with undergraduate education, and with research, the community mental health services of their region, and the psychiatric education of postgraduates practising in the large mental hospitals which exist in the country around them.

From these two developments we are witnessing the process which many hoped for—the re-entry of psychiatry into medicine; and parallel with this the reintegration of hospital medicine with community medicine. It is upon this basis that future psychiatric education must be developed. It is therefore most pertinent to ask what the roles of the psychiatrists of the future will be. And, if we have the answer to this, to pose the second question, what should be the nature of the education and vocational training that they will need?

Role of Universities and Colleges

Universities are bodies devoted to learning and education. They are not bodies which were originally created with the aim of providing vocational experience for any particular profession.

The degrees which universities conferred were not anything more than licences to teach the subject in which the degrees have been conferred; they were not licences to practise anything. Universities therefore grew up as places where there were communities of teachers and scholars. Colleges, however, were created to serve a different function. They were set up to maintain reputable standards of professional practice, and this they have done by the granting of membership and other diplomas to those whom they regarded as having achieved satisfactory standards. Nevertheless, their role as educational institutions has until recent years been negligible. By 1858 many medical schools, colleges, and certain other bodies had acquired power to grant licences to practise, and in a situation of great complexity the General Medical Council was set up by Parliament to harmonize standards and to survey the undergraduate curriculum periodically and to make recommendations. This it has done for over a century with the full agreement and help of the profession.

The question which at the present time is exercising the minds of many people is whether the time has come for a similar exercise to that which was undertaken a century ago in respect of undergraduate should now be undertaken for postgraduate education. If there is to be a national register of doctors recognized as having acquired suitable education and having also undertaken a suitable vocational training and obtained adequate experience of specialism within a given field of medicine, it seems likely that the G.M.C. must undertake this responsibility, as the Royal Commission recommends. It will be necessary for every major branch of medicine to undertake vocational training on a much larger scale than hitherto, and this of course applies particularly to psychiatry. This cannot be the sole responsibility of university departments. Their business is to pursue academic functions, which means the promotion of opportunities for research into the sciences upon which psychiatry depends, to teach and to provide a place for the development and application of scientific methods of clinical investigation and for the pursuit of scholarship. The promotion of high standards of practice and the recognition of what constitutes adequate vocational experience and training will inevitably be the responsibility of the new College of Psychiatrists. It is therefore of the greatest concern to psychiatry that the subject should have as soon as possible a professional body, nationally recognized, to represent it in the various negotiations about postgraduate education which are proceeding at the present time. This means a professional body having collegiate structure commanding the loyalty of psychiatrists and the respect of the profession as a whole.

If postgraduate education is to be a joint responsibility of universities, the Colleges, and the N.H.S., the product being assessed and accredited by the appropriate professional body, the universities will have accepted an entirely new historical role. University departments of psychiatry in sharing this role will be faced with the necessity of preserving by all means possible the means by which they can continue to exercise their academic functions. There is already a recognized danger that in willingly accepting an important share in postgraduate clinical training they will deprive themselves of the limited resources to develop their own academic functions. Money and manpower shortages place severe limitations already. The Royal Commission suggests that the National Health Service should provide the financial provision for all medical training other than that of a mainly academic kind. If this should be accepted it would mean that university departments would be dependent in part at least, and perhaps in great part, upon the Government's assessment of the manpower needs of the profession, and would be subject to every vicissitude which the Government policy of the day might determine. For university departments of psychiatry throughout the country, only recently created and with inadequate facilities and establishments, there is grave danger in this for the scientific development of the subject. Nevertheless their position would be quite untenable

if they failed in either of two respects. On the one hand they will have to ensure that what they teach is geared to the actual professional skills and needs of postgraduates; and on the other they will have to sustain the argument by their achievements that the preparation for psychiatry requires a large and serious academic component which they alone can provide.

Pattern of the Future

The signs seem clear^{2 3} that the pattern of administration of medical care will change, and that we are moving towards a system of new decentralized health authorities responsible for all parts of the National Health Service. Whatever form this single authority may take, the new area health board will be comprehensive and will have the aim of integrating under a single umbrella all the services at present provided by the hospitals and the community health services, including the work of family doctors in a given area. If, as seems likely, this comes about, medical care, while remaining hospital-based, will almost certainly become increasingly community-orientated. The organization of postgraduate medical education will no doubt be greatly influenced by the new arrangements, and university departments of psychiatry will find themselves under greater pressure than hitherto to provide education and vocational training not only for postgraduate psychiatrists in their areas but also for general-practitioner trainees, for many other classes of doctor, including community specialists, and for a variety of non-medical professional personnel involved in in-service training in the communities in which they are located.

As psychiatry moves progressively into the general hospital, teaching and non-teaching, and also into the community, the psychiatrist will find that he will be concerned less with the problems of functional psychosis and to a much greater extent than hitherto with the problems of neurotic disorder, with patients suffering from psychosomatic disorders and with those whose disorders of personality have become associated with deviant behaviour, chronic alcoholism, drug dependence, occupational inadequacy, and delinquency. The medical manpower shortage has already placed a ceiling upon the increase in the number of psychiatrists who will be available in the future. But even if we could anticipate a modest increase, it is clear that the task of providing help and support for so many sick and disabled people cannot in the future be shouldered by medical personnel alone. Indeed, the skills and human understanding, as well as the motivation and qualities of personality necessary to such work, are not the prerogative of the medical profession alone. The psychiatrist will no doubt work increasingly as a member of a team of medical and non-medical professional people and will have to accept, as all doctors will, that responsibilities have to be shared.

The vast load of neurotic suffering in the community has hitherto received very little official or public recognition. The mental health services have developed, and the financial provision given and facilities made available were all based in the first place on an assumption that these should be adequate to meet the inpatient and community needs of patients suffering from psychosis or from subnormality. In the last 10 years or so official recognition by the Ministry of Health has been given to the needs of other psychologically disabled people, particularly epileptics, anti-social psychopaths, alcoholics, emotionally disturbed and maladjusted children and adolescents, and, most recently of all, drug addicts. Nevertheless, the bitter lesson is now being learned that in respect of most of these categories of sick people there are neither the financial resources nor the trained or interested personnel to implement the various far-sighted reports and recommendations which have issued from the Ministry in respect to them over the years. Much has been recommended but little has or apparently can be done to implement them. Above all, the serious problem, although partially hidden from view, of providing therapeutic help for the 12% to

14% of the population who suffer from neurotic illnesses has hardly been considered. These matters will no doubt come into greater prominence as general practitioners, who at present attempt to cope with 90% of the neurotic patients in the community, themselves receive vocational training, which, as they emphasize, must include psychiatry. It will also appear as a greater demand upon overstretched services, when our society, better educated and more sophisticated, becomes more aware of this need. It seems very probable that in a community-orientated and community-organized medicine an increasingly therapeutic role for many classes of emotionally disturbed patients will be taken by non-medical personnel working within the community team who will themselves in the future have to be trained in psychotherapeutic techniques, as well as in social case-work as at present. This task will fall in part on psychiatrists, who themselves must be trained.

Entry to Postgraduate Training

We can anticipate in the future a significant change in the academic and clinical preparedness of those entering vocational training for psychiatry. It should not be necessary, as in the past, to assume an absence of academic knowledge of basic subjects relevant to psychiatry and to start education at the preclinical level. If the recent G.M.C. recommendations⁴ are implemented by the medical schools, all doctors qualifying will have studied human behaviour as well as human structure and function. The opportunity to learn the principles of human growth and development and human genetics, of human psychology and sociology, will have been furnished, as well as of biometric methods. With a greater experience of the methods of clinical psychiatry, and as a consequence of a closer contact with a wider range of human problems as they affect the individual and the family, there will be a greater freedom from the prejudices which an exclusive preoccupation with the medical model of disease produces. We know that objective attitudes towards people free from antihuman prejudices, together with the capacity for subjective empathy, are hard to come by, indeed may take years to develop, but unless the potential for such personal skills which is present in most students is fostered early in medical training they may never be acquired at all. The ability to relate the patients in a therapeutic setting must remain embryonic throughout many years of the student's experience, but it will be a vital requirement for the future psychiatrist and for many other doctors who will undertake the personal care of patients. There will be some who through personal limitations will always be unable to participate therapeutically in human relationships and have no desire to do so, a position analogous to that of the surgeon who is phobic of blood. It should be a responsibility of teachers to steer their students towards careers appropriate to their interests and abilities.

The outline proposals for future postgraduate education and training given by the Todd Report are likely to receive a wide measure of acceptance. The new functions suggested for the membership of professional bodies would clearly relate to recognition that the successful candidate had undertaken general vocational training for his particular career, and if this is accepted the membership of Colleges of Physicians as it stands at present will then become an unsuitable examination for psychiatrists, for to undertake three years' professional training for medicine itself before entering psychiatry is an unnecessary requirement and would delay such entry unduly. The modal interval for British graduates between qualification and obtaining the M.R.C.P. was recently given as five years.⁵ Nevertheless it is to be hoped that a proportion of those entering psychiatry will have spent one to two years after registration working in a field relevant to the subject, such as neurology, paediatrics, or general practice, or have spent a period in clinical research. Those whose interests lie particularly in the

biological aspects of our subject should still be encouraged to do so. For the rest we must anticipate, if the recommendations of the Todd Report are accepted, that the majority of those entering psychiatry will do so very soon after registration. There can be no doubt that this will be the case for all those whose essential interest is in people rather than in things. There are many who have deplored delayed entry to psychiatry of many of its best students, considering the preoccupation with examinations and diplomas during the most important learning period of a man's life to be inhibiting of originality and to be subsequently restrictive upon his initiative and outlook. It should not be necessary for the psychiatrist of the future to win acceptance from medical colleagues or to maintain his own self-esteem by the fact that he possesses the same diplomas as they do, together with some of his own in addition. Nevertheless the Todd recommendations make evident that psychiatrists of the future will not be expected to be comprehensively trained physicians before they undertake comprehensive training for psychiatry. If the practice of psychiatry had remained isolated from medicine as a whole, this consequence would have been deplorable. But this is no longer the case and will in the future be even less so. The psychiatrist will increasingly be one of a team of hospital-based specialists with whom he should work in the closest collaboration, and whose help should always be available to him, as his will be to them. An essential part of his education therefore should be a learning experience of working with them. As part of vocational training for psychiatry a period working in a general hospital under psychiatric supervision will become an important element.

An immediate entry to general professional training after registration will, however, place greater responsibility upon those who have the business of the selection of candidates. University departments of psychiatry have a particular responsibility. There is a need in psychiatry to recruit men and women with a wide range of different interests, scientific ability, and qualities of personality. Among the élite there will always be *some* whose self-image is based upon the current concept of the clinical scientist, against whom Lord Platt⁶ has recently provided such severe admonitions. But for the clinical scientist in psychiatry there is not only the medical model founded on biochemical or physiological inquiry, but also the models based on psychological or sociological inquiry. University psychiatry has a direct responsibility for providing the opportunities for clinical scientists in all these fields and their work must be on display for all those students whose abilities and interests steer them in these directions. Yet university departments of psychiatry will not have met their social obligations towards postgraduate education if they emulate departments of medicine in the manner deplored by Lord Platt, and mistake the image of the future clinician-psychiatrist for that of the clinical scientist. The object of postgraduate education in psychiatry is to produce good clinicians. Good clinicians are not necessarily good research workers and the converse is even less frequently the case. While a critical capacity to weigh evidence, to understand the applications and limitations of the scientific method in his own field and to be able to evaluate their results, are necessary to all clinicians, psychiatrists, like all other doctors whose daily concern is the treatment of patients, must learn how to make clinical decisions based on the best available data, inadequate though this may be for a scientific experiment. Exposure to research methods and the participation in research is a very valuable part of education to which most psychiatrists who have had the good fortune to experience it will attest. For those whose future leads to academic posts, it is of course a necessary part of their intellectual equipment and of their achievement. They will indeed select themselves. University departments of psychiatry, in sharing with the professional bodies and the postgraduate regional arrangements in the hospitals around them, will no doubt have to take a major responsibility for providing research opportunities for those postgraduates whose interests and capacities warrant it. To prescribe, however, an exercise in research, perhaps on a topic

which does not interest the student, and to make this a condition of professional vocational training for *all* postgraduates would, I believe, be a self-defeating exercise.

Careers in Psychiatry

There are now a diversity of possible careers for the clinical psychiatrist, each involving its own professional knowledge and skills. While no doubt the majority will continue to have careers in general psychiatry working in hospitals and in the community, there is clear evidence of the emergence of the specialist psychiatrist with his own discipline, frame of reference, and field of work. These specialties include at present the child psychiatrist, the psychotherapist, and specialists in subnormality and in forensic psychiatry. It is very necessary to adhere to the concept of the comprehensively trained psychiatrist and to ensure that all those who become specialist psychiatrists receive a comprehensive basic psychiatric education before starting the specialist training for their chosen careers. The period of three years suggested by the Todd Report for "general professional training" is in line with much opinion about this period. At the end of it or during it the postgraduate must expect to acquire the membership diploma of his professional body—and in the future one assumes that this will be the College of Psychiatrists. Depending on aspirations, abilities, and opportunities, it is to be hoped that also at the end of this period many postgraduates will acquire a university degree by thesis or dissertation on a psychiatric subject. At this point the normal translation is to a senior registrar post, or in Todd terminology to the ranks of "junior specialists." It is then that university departments of psychiatry should be given the opportunity to provide an adequate number of "intensive training" posts for those who are to become generalists in psychiatry as well as for those who seek to have specialist careers in the subject. Whether they will be permitted to do this in the future would seem to depend to a large extent, as it has done in the past, upon decisions taken by the Ministry of Health.

The fundamental plan for the basic vocational training of all psychiatrists will continue to rest no doubt upon a system of supervised apprenticeship with a period of at least 18 months in adult general psychiatry, working with both inpatients and outpatients. This is then followed by experience in some of the special fields of psychiatry, and at this point the student should be able to exercise some choice. Increased experience of community psychiatry and of the interlinking problems of the family can be expected for the earlier period. But this can only come about when more teachers of psychiatry see their role not only as hospital doctors but also as doctors with work to do in the community. The student's experience is throughout buttressed by clinical conferences and clinical seminars, particularly on psychotherapeutic problems; and the opportunity to undertake group psychotherapy and to treat a few patients with long-term supportive psychotherapy under close supervision should, I believe, be made available to all postgraduates. When the availability of teachers makes it possible, this should be considered as a necessary condition of general professional training. This is a matter much neglected in university departments of psychiatry in Britain, as the Royal Commission points out. The shortage of psychotherapy teachers in Britain is a matter as serious for the Mental Health Services as is the present shortage of trained social workers. The capacity to understand interpersonal relationships and to provide psychotherapeutic help when this is indicated should be regarded as a necessary part of every psychiatrist's equipment. Moreover, the capacity to teach and to supervise others in this field will be greatly needed in the future. Psychotherapeutic skill is not therefore only a matter for specialist psychotherapists.

Upon the university departments of psychiatry will fall the obligation to provide the student with the basic knowledge as

it is at present developed upon which the scientific study of psychiatry rests. This must cover the phenomenological, psychological, biological, and sociological aspects of the subject, and the student's involvement would seem best insured by seminar teaching rather than by formal lectures. The student becomes familiar with the methods of inquiry in these several subjects, has a considerable amount of established knowledge to acquire, but even in a three-year period with so much to cover such courses cannot be expected to be both comprehensive and developed in depth. It will always be the student's own responsibility to select from the great range of available subjects a topic which he can pursue in depth if he wishes to do so. To help him in this a tutor selected from among his senior clinical teachers may prove invaluable.

Three types of achievement involving different skills, promoted by different motivations and dependent upon different human qualities, are now demanded of the psychiatrist élite. He is at once expected to be a scholar, a scientist, and a clinician. In the end he will be found to be predominantly excellent in one of these, not in all three. The scholar tends to be inhibited by the burden of his own knowledge and rarely has the freedom of mind the creative scientist requires. As clinician the scholar all too often lacks those human qualities without which the arduous life of dedication to patients is unattractive. The clinical scientist, however, pursues scholarship only within the field of his own interest and narrows the range of his clinical vision to the problems which as a scientist he is driven to

explore. Too often he becomes a prisoner to his own techniques. The clinician, however, in daily and continuous contact with the whole range of illness, deviation, and disability, is primarily motivated not towards scholarship or to scientific inquiry for its own sake but to treatment and the alleviation of suffering. There is the ever-present danger that disregarding the insights and understanding which scholarship can provide, and the sense of criticism and scepticism which a scientific frame of mind can give, the clinician will degenerate into a technician, and in our present era a mere empiricist, purveying the products which our advanced pharmaceutical industries continue to develop and provide. The best hope for the avoidance of these dangers lies, in my opinion, in the intelligent and inspired partnership of university departments of psychiatry with those whose business it is to treat patients as they actually present in our society.

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Cardiac Monitoring in a Regional Hospital

CLIVE P. ABER,* M.D., B.SC., M.R.C.P.; R. W. PORTAL,* M.D., M.R.C.P.; M. P. CHOPRA,† M.B., B.S.

Brit. med. J., 1969, 1, 209-212

Summary: The first 18 months' experience in a self-contained, 9-bedded cardiac monitoring unit in a regional general hospital is reported. Of 667 admissions, 373 (56%) had acute myocardial infarction. Of these, 61 (16%) patients suffered cardiac arrest(s), and 11 were successfully resuscitated. The overall mortality was 13.4%, which compares favourably with other series reported.

Introduction

Recent reports from teaching hospitals have shown a high incidence of benign and a lower incidence of potentially dangerous dysrhythmias after myocardial infarction (Fluck *et al.*, 1967; Lawrie *et al.*, 1967; Restieaux *et al.*, 1967; Stock *et al.*, 1967; Pentecost and Mayne, 1968). The prompt recognition and treatment of ventricular fibrillation and heart block have appreciably reduced the mortality from such dysrhythmias when they occur in patients cared for in specialized cardiac monitoring units, where there is rarely a problem in providing adequate numbers of trained medical and nursing staff. On the other hand, the value of cardiac monitoring in regional (non-teaching) hospitals is as yet undetermined, since no report from such a unit in this country has been published. We therefore

report our first 18 months' experience in a nine-bedded monitoring unit in a regional hospital.

Description of Unit

The unit is a self-contained nine-bedded ward with mixed sexes on the ground floor of a general hospital in the centre of Hull. Each bed is equipped with an oscilloscope (Cardiorater, Cardiac Recorders, with rectangular screen 4 by 3 in.; 10 by 7.5 cm.), piped oxygen (humidified), piped suction, and an aneroid sphygmomanometer (Accoson, 6-in. (15-cm.) face) fixed to the wall above the head of each bed. The beds are specially constructed with detachable head and foot boards. The head and foot of the beds can be raised or lowered through 20°. They stand at least 6½ ft. (2 m.) apart and are clearly visible from the nursing station at one end of the ward. A single-channel oscilloscope incorporated in the nursing-station desk permits the serial inspection of the nine electrocardiograms. An alarm switch to summon medical and nursing aid is placed at the head of each bed and also in the nursing station. When this is thrown, the duty registrar, house-officer, and three senior nurses are summoned by a Multitone call system. A D.C. defibrillator (Cardiac Recorders, Type 61A), a pacemaker (Cardiac Recorders, Type 64A), an oscilloscope, and an emergency drug trolley are kept in the unit.

The unit is under the joint supervision of two consultant physicians, who alternate in a complete daily ward round.

* Consultant Physician.

† Research Assistant.

Department of Cardiology, Kingston General Hospital, Hull.