The development of postgraduate medical education, with particular reference to the West of Scotland

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SUMMARY

The practice of postgraduate medical education could be said to be as old as the practice of medicine itself, but the formal organisation of postgraduate medical education in this country dates back to the turn of the century. With the growth in the knowledge-base of medicine and also the expansion of the British Empire, postgraduate education became at last a necessity for every doctor.

During the last seventy years several reports have dealt with this issue and have made many recommendations and suggestions, few of which have been assimilated into practice. In the West of Scotland, the innovations have been ahead of the country as a whole which places the region in a strong position today.

However, several issues appear problematic at both local and national level. These issues may be divided into three major areas, management; education; and special issues. In the management area problems relate to the specification of aims, the question of roles, the increasing problems of finance and the problems of conflict. With education problems relate to the curriculum, to assessment and to evaluation. Finally, special issues which encompass all these problems are particularly related to the pre-registration year, to continuing medical education and to teaching skills.

There are no simple solutions to these problems. However, dialogue, discussion and further research could alleviate the situation. What is important is to recognise that the problems of postgraduate medical education are not unique. Many of the debates now occurring in the field of postgraduate medical education have already taken place, or are on-going in other educational areas. Postgraduate medical education can both learn from and contribute to these debates.

ABBREVIATIONS

BMA	British Medical Association
DHSS	Department of Health and Social Security
EEC	European Economic Community
FRCS	Fellowship of the Royal College of Surgeons
GP	General Practitioner
MB	Batchelor of Medicine
MD	Doctor of Medicine
MEd	Master of Education
MMed	Master of Medicine
MRCP	Membership of the Royal College of Physicians
NHS	National Health Service
SHHD	Scottish Home and Health Department
UK	United Kingdom

CHAPTER ONE

HISTORY OF POSTGRADUATE MEDICAL EDUCATION

Introduction

The history of postgraduate medical education dates back to the beginning of the practice of medicine. However, like the practice of medicine, it bears little or no relation today to that experienced by the doctors of the middle ages. In the early days of medicine, students of medicine did not attend just one school but moved around, sampling the classes on offer, for there was no guarantee that each school taught everything. Individual teachers gained reputations for tackling specific subjects, so students would journey around Europe, building their curriculum as they went. (Poynter, 1966)

The amount of medical knowledge required to pass the necessary examinations was small so physicians relied on postgraduate education to ensure technical proficiency. This proficiency was gained by working in hospitals. It became traditional for the new doctor to be given progressively increasing responsibility for his patients, thereby educating himself in the process both by practice and by example.

In fact, the study of medicine was effectively postgraduate

study for all students. In the eighteenth century the regulations for the universities of Oxford and Cambridge insisted that students should have spent at least six years in the study of the arts, before they were admitted to the study of medicine. This ensured that the physician was a well-read, cultured man, having had a liberal education. There is a strong parallel in this to the American system today and some would regret the passing of the "education" for medicine. By 1800 the end product of a physician's education was a cultured, highly educated gentleman with a small but adequate knowledge of medicine. Very often his medical training took up only one year after his general education.

Of course, until the nineteenth century, academic study was reserved for the physicians. Surgeons and apothecaries, much more lowly breeds in those days, learned by apprenticeship to a master. It was felt that a university education was not necessary for surgery where the important skills were speed and dexterity in the absence of anaesthesia. Until the mid-nineteenth century physicians were considered to be professionals while surgeons were considered to be craftsmen and the respective Colleges reflected this distinction in their entry qualifications.

Early History

The College of Physicians was founded in 1518 by Henry VIII.

In the early days this body was more disciplinary than educational however. It was given the right to licence physicians and as a result in 1522 any physician practising in England had either to hold a doctorate of medicine from Oxford or Cambridge or be examined by the College. By the mid-sixteenth century the College was running a series of anatomy lectures for which Queen Elizabeth I granted them four criminal corpses annually.(Newman, 1957)

The academic study of medicine was concentrated in Oxford and Cambridge for undergraduates and in London for postgraduates where the end of the sixteenth century saw several series of lectures. Gresham College held a series of postgraduate lectures on medicine in 1597, followed shortly afterwards by the Lumleian lectureship at the Royal College of Physicians of London. At that time, the college activities were more akin to those of a present day medical society. In addition, the newly formed Royal Society numbered many physicians among its members thus ensuring a strong medical emphasis to any meetings. (Allen, 1946)

It is interesting to note that during the same period the College of Barber-Surgeons held a series of anatomy lectures for its members. These lectures were given by a member of the College of Physicians.

But London was not the only seat of postgraduate activity. 1599 saw the establishment, by the royal approval of James

VI, of a Glasgow body which in 1654 styled itself the Facultie of Chyrurgeons and Physitians. This Facultie laid down a code of rules for the training of apprentice surgeons in 1602 and arranged for the provision of teaching for both the apprentices and their masters. (Duncan, 1896)

But the fact that Glasgow had one body for both medicine and surgery did not mean that physicians and surgeons were considered equal. In the original charter surgeons were to be admitted to the Facultie by examination while physicians were to be admitted by possession of a university degree.

The establishment of the first specialist hospitals in the eighteenth century provided the first specialist postgraduate education. These specialist hospitals were originally established because the general hospitals refused to admit certain cases, for example unmarried mothers and lunatics. St. Luke's Hospital, founded in 1751 and providing postgraduate education in psychiatry was the first of some 140 by the early 1900s. Unfortunately many of these hospitals were founded not for the good of the patients but for the personal gain of the founders and thus these hospitals earned a poor reputation. (Poynter, 1966)

Nineteenth and Early Twentieth Century

At the beginning of the nineteenth century, the training for medicine was so inadequate that all serious students

undertook some postgraduate study. This was undertaken mostly abroad where centres of excellence were already providing the postgraduate student with the means of further study. For the first half of the nineteenth century, this centre was France, where because of the need for surgeons to help in the revolutionary wars, the French had created a science of medicine. (Newman, 1957)

This "grand tour" of the great schools of Europe was common to Scottish physicians of the time, as evidenced in the biographies of many of the presidents of the Royal College of Physicians and Surgeons of Glasgow until the beginning of the twentieth century.(Gibson, 1983)

It was in the nineteenth century that the first medical clubs and societies started to appear throughout the country. Early examples were the Glasgow Medical Society which was founded in 1814 and in 1836 the Guy's Society for Clinical Reports at Guy's Hospital, London. Most of these societies were founded for the advancement and discussion of medical knowledge and could therefore be considered to be contributing to the postgraduate medical education of their members. It has been suggested that those societies with premises offering social in addition to educational accommodation were the precursors of the postgraduate centres a century later. (Newman, 1957)

In 1841 for the first time, a formal examination was held for the qualification of M.D. at Cambridge University. This was

followed in 1844 by the first FRCS examination and in 1859 by that for the MRCP. These first true postgraduate examinations were conducted orally, and in Latin, maintaining the tradition of the candidate having to defend a tract or thesis. The move towards written examinations began in 1847 with the examination for the Fellowship of the Royal College of Surgeons. Meanwhile in 1858 after many fruitless attempts, the government succeeded in passing the first medical act. The Medical Act established the General Council of Medical Education and Registration in the United Kingdom (renamed the General Medical Council in 1951). The production of a Medical Register by the General Medical Council meant that for the first time all doctors, physicians, surgeons, apothecaries and general practitioners were equal before the law as registered medical practitioners. The way was therefore open for a more general undergraduate education. The Act also provided for the official recognition of Scottish medical graduates in England and Wales.

In 1886 another medical act was passed which prescribed the training required before a doctor could register with the General Medical Council. This training stipulated proficiency in medicine, surgery and midwifery. Stipulation of training in this way was controversial at the time because it created the concept of a single portal entry to the profession rather than, as had happened in the past, different training for medicine, for surgery and for apothecary. However, the Act made no mention of

postgraduate medical education and this lack of any legal requirement to undertake postgraduate medical education still exists today with the exception of general practice. In reality of course, a young doctor is very unlikely to progress in his medical career without undertaking further training.

The revolution occurring in medical education and in medicine generally in the late nineteenth century made the need for postgraduate medical education both more and less necessary. There was no longer any need to compensate for the poor quality of undergraduate medical education but at the same time medicine was developing at such a rate that postgraduate medical education was now needed in order to keep up to date and for the first time to specialise.

In the second half of the nineteenth century there was a move towards more "teaching" of postgraduates, in line with the postgraduate schools on the continent. The first of these was the North East London Postgraduate College in 1868 which provided "hospital practice in general subjects and thirteen specialities". It also encouraged students to attend post-mortem examinations. This is the first evidence of a clinical postgraduate education as opposed to an academic one. The North East College continues today in association with the Prince of Wales Hospital. (Poynter, 1966)

This was followed in 1884 by the Pathological Society which

interestingly enough had quite successful fortnightly meetings until the introduction of bacteriology when numbers dropped. It has been suggested that this drop in numbers was due to the fact that the main role of a graduate school was practical hands-on training rather than academic theory. (MacPhail, 1919)

The next recorded activity was not until 1893 when the West of London hospital which had been founded in 1856, inaugurated a series of lectures for postgraduates after several unsuccessful attempts to encourage local doctors to use the educational facilities of the hospital. This appears to have been a fairly successful venture with a total membership of £200 for the first course and by 1903, a working profit of 650. In 1907 it formed the basis of a West London Postgraduate Medical College Society. This became a sort of local club for doctors, with lectures and
clinical work on the wards providing the educational input. However, after reaching the height of its success in 1903, the lectures gradually declined in popularity thereafter. Despite this it was still in existence in 1951 when it became part of the Charing Cross Hospital and Medical School.

Meanwhile other moves were afoot. By the 1890s it was becoming more obvious that there was a lack of suitable facilities for postgraduate study in the United Kingdom. There were three reasons for this. Firstly the steady stream of growth in the science of medicine and surgery was becoming

more of a torrent which could no longer be stemmed by the undergraduate curriculum. Secondly the practising doctor was finding it necessary to return to study for the same reason. Thirdly in an era of colonialism and the expansion of the British Empire more doctors were arriving from overseas to study in the U.K. This lack prompted the establishment of the London Postgraduate Association in 1898 which provided centrally organised postgraduate instruction until 1913 when the larger medical schools broke away. A year later in 1899 the Medical Graduates College and Polyclinic, which developed from the clinical demonstrations given by Sir Jonathan Hutchinson was opened. The aims of the Polyclinic were "to facilitate in all directions the life-long education of medical men by providing the G.P. with an easy means of keeping his knowledge up-to-date, the
service medical officer with a profitable way of using study leave and the foreign visitor with an easy way of learning the best in medical science in this country." It is noticeable that this aim made no mention of the postgraduate education of hospital doctors.

The polyclinic was at pains to point out that it was not a rival but an auxiliary and supplement to the medical schools. Sadly it was always in financial difficulties and despite a membership of 700 in 1901 membership declined continually until the Polyclinic was forced to close in 1914.

The failure of most of these worthy attempts at postgraduate

medical education has been attributed to several factors. The most enticing of these blames the failure on the fact that the teachers were still educating for the nineteenth century, oblivious to the fact that medicine had moved and was continuing to move with ever increasing speed into a new age. If that was the case, there is still a lesson to be learned there for the educators of today. (Newman, 1966)

This trend towards organised postgraduate medical education was reflected in Edinburgh with the establishment in 1906 of a joint postgraduate executive committee comprising members from Edinburgh University and of the two Royal Colleges in Edinburgh. This committee had its origins in two separate committees both established a year earlier run by the Faculty of Medicine and the Royal Colleges respectively. Luckily the chairmen of these two committees were friends and so resolved to join forces. A similar step was taken in Glasgow a few years later in 1914.

There were individual attempts at postgraduate medical education as well. For example in an obituary of George Stevenson Middleton, visiting physician to the Glasgow Royal Infirmary from 1892-1913, it is recorded that he was so popular a teacher that some of his former students prevailed upon him to conduct a teaching ward round on Sunday mornings for their benefit. His obituarist claims this as the first postgraduate teaching in Glasgow. (Gibson, 1983)

However, for the early part of this century, the continent still retained its hold over serious postgraduate students and in particular Vienna was the pre-eminent centre until the outbreak of the First World War. (Newman, 1957)

Inter-war Years

In 1918 a report on postgraduate medical education in London was published. This report was in fact a memorandum from the chief medical officer, Sir George Newman to the President of the Board of Education. It reported on his work as medical assessor for grants in aid of medical education since 1918. Although the report applied only to England and Wales some of the recommendations he made were far-sighted for postgraduate medical education in general. (Newman, 1918)

Newman argued that there were two main reasons for the introduction of systematic postgraduate study in medicine. These he saw as the rapid advances in the science and art of medicine and the overcrowded medical curriculum. He cited the German example of a year's internship as a role model and saw the need in England for a system whereby all students received some practical postgraduate training before embarking on independent practice. In addition he felt that all practitioners should be offered the facility of bringing their knowledge up-to-date periodically.

According to Newman, this system required postgraduate teaching and learning of various types. These he identified as: postgraduate instruction as an integral part of the work at undergraduate medical schools; postgraduate training at specialist hospitals and schools; postgraduate work at district hospitals in both general and specialist medicine for local practitioners; and an imperial postgraduate teaching scheme in London for foreign graduates.

The subjects GPs required were specified as: revision courses in diagnosis and treatment; special tuition in tuberculosis and venereal disease; detection and management of mental cases; differential diagnosis in surgery; disorders of digestion; ophthalmology; and war neuroses. An argument was put forward for the inclusion of each of these. He then went on to the character of any courses which must, he argued be comprehensive, reasoned, considered, of university standard and above all practical.

Newman summed up his philosophy of postgraduate medical education as follows:

> " a great proportion of the population are submitting themselves to medical treatment by professional men trained 20 or 30 years ago; it would handsomely

> repay the state to encourage and to aid fresh study every 8-10 years, so rapid and profound are the advances in medicine. Such postgraduate study can only find its true source in the medical schools or their teachers; it cannot be firmly established or fulfill its purpose apart from a sound system of medical teaching" (Newman, p. 115)

At the end of the War, Sir William Osler saw the opportunity for London to usurp Vienna as the centre of postgraduate medical education and urged the government to help with the development of a scheme to provide "academic" medicine. Nothing came of this, but as a result of his activity a revised scheme for the Inter-Allied Fellowship of Medicine provided much needed rehabilitation courses in London for returning service doctors from English speaking forces. Osler however had failed to persuade the government to contribute anything to the provision of these courses. The Fellowship amalgamated with the London Postgraduate Association in 1919. (Poynter, 1966)

The activity and enthusiasm generated by the establishment of the Fellowship of Medicine led in part to the appointment of

the Athlone committee to look at the postgraduate medical education position particularly in London. The postgraduate medical committee under the chairmanship of the Earl of Athlone took only 5 months from establishment in January to report in May 1921. (Postgraduate Medical Committee, 1921)

The terms of reference of this committee were set out quite explicitly - "to investigate the needs of medical practitioners and other graduates for further education in medicine in London and to submit proposals for a practicable scheme for meeting them." (Postgraduate Medical Committee, 1921, p.2) As was suggested in the terms of reference, this report dealt in the main with London, but some of its discussion was pertinent to the rest of the country.

The committee identified seven different categories of people requiring postgraduate instruction. These were recently qualified graduates; GPs of some years standing requiring general courses in medicine and surgery; GPs looking for specialist courses; graduates about to take higher qualifications; officers from the services; graduates requiring facilities for research; and graduates from abroad.

The report praised the American system of internship and suggested a similar system for the UK, but warned that this would require to be a voluntary scheme because of the laws in this country regarding the Medical Register. These laws required a graduate to register with the General

Medical Council before taking up any medical post. Having acquired that registration, there would be no compulsion that could be placed upon a graduate to force him to undertake an internship. The argument for a year spent as a clinical assistant before going into independent practice was based on the need for practical experience after graduation. As to the needs of GPs, the committee stressed the need for courses which were practical and which were what a GP wanted, not what someone else thought he wanted. In order to allow GP's time off to partake of these educational opportunities, the question of locums or substitutes was raised and the committee suggested maintaining a register of suitably qualified medical graduates.

With regard to facilities, the committee recommended the conversion of one of the London hospitals with attached medical school into a Postgraduate School. This would have a role to play over and above that played by the general hospitals, specialist hospitals and poor law infirmaries in postgraduate medical education. These teaching facilities would be complemented by a Bureau in central London offering information, social facilities and a library for those undertaking postgraduate medical study in the capital.

The committee also recommended an Institute for State Medicine. It was expected that the finance for these initiatives would come from the state and from private endowment. A brief mention was made of provincial demand for

postgraduate medical education. The committee saw this being met by the universities.

Following this report the London School of Hygiene and Tropical Medicine was established in 1922. However it took the report of a second committee on postgraduate medical education in 1930 before anything was done regarding a postgraduate medical school. This second report from the Postgraduate Medical Education Committee in 1930 followed on directly from the report of the Athlone Committee. It was chaired by Neville Chamberlain from 1925-1929 and by Arthur Greenwood for the remainder of its term. The terms of reference of this committee were "to draw up a practicable scheme of postgraduate medical education centred in London" (Ministry of Health, 1930)

The committee reiterated the reasons for providing facilities for postgraduate study which it claimed had become obvious over 30 years before. These were the growth in the science of medicine, the need for medical men to refresh their knowledge and the expansion of the British Empire. In addition it stated that the present urgency of the problem had come about through the explosion of new discoveries.

It was in agreement with the findings of the Athlone Committee and applauded the setting up of the London School of Hygiene and Tropical Medicine. However, it was saddened

to see that there was still no postgraduate hospital and school eight years later.

The emphasis in this report was on the service to the British Empire, the national value of advancing medical science and the benefit to isolated country doctors.

The recommendations of the committee centred around the conversion of the Hammersmith Hospital into the British Postgraduate Hospital and Medical School, providing 600 beds, the full educational facilities of a medical school and accommodation for postgraduate students.

The result was the setting up of the British Postgraduate Medical Hospital and School in 1935. However, by then Britain was in the grip of the Depression and the money available for such things was cut dramatically. As a result the School was never as grand as had been proposed.

The interwar years also saw the development of a plethora of postgraduate diplomas in such diverse subjects as child health, psychiatry and radiology. These were an attempt at specialist training now that the general qualifications of MRCP and FRCS were no longer considered suitable for a number of emerging specialties. Unfortunately there was no coordination of these diplomas and as a result there was considerable disparity in the standards they required of candidates. Some were pitched at the same level as the

MRCP and FRCS, some were a degree higher and some were designed as exit qualifications. In the years immediately preceding the second world war, the government took a hand in postgraduate medical education by establishing grants to enable insurance practitioners to attend refresher courses in centres around the country every five years. These grants covered not only the direct educational expenses but also the payment of a locum during the practitioner's absence.

Post-war and the Introduction of the NHS

1944 saw the publication of the Goodenough report on medical schools which marked a watershed in the history of medical education. For the first time, undergraduate and postgraduate medical education were considered by the same body, at the same time. (Interdepartmental Committee on Medical Schools, 1944)

The interdepartmental committee on medical schools was appointed in March 1942 to look at the organisation of medical schools following the proposals for the introduction of the national health service. In a letter to the committee in April 1942, the Minister of Health directed their attention to certain key questions including "lastly the arrangements for postgraduate teaching and research".

The main recommendation of the report as far as postgraduate medical education was concerned was for the introduction of

a pre-registration year before graduates were admitted to the Medical Register. This would require a change in the Medical Act, making their actions during this year, before registration legal. It was emphasised that the pre-registration year should be seen as the final year of undergraduate medical education and that the junior house officers should be seen as students with time for study and reflection. This pre-registration year was to be made up of two six-month appointments ideally in general medicine and general surgery. No examination was to be set at the end of the year, instead the assessment should consist of a certificate of satisfactory completion to be issued by the supervising consultant. In addition free board and lodging were to be provided and a salary paid.

The recommendations on postgraduate medical education per se were based on the fact that "the provision so far made for postgraduate medical education in Great Britain lacks organisation and cohesion. A nation embarking on a comprehensive health service cannot afford to do without a comprehensive system of postgraduate medical education." (Interdepartmental Committee on Medical Schools, p. 32).

The recommendations were based on the general principle that qualifications and standards should be set centrally, that the primary requisite should be approved postgraduate training and experience and that there should be general clinical experience before specialisation.

The report stressed the need for the young doctor to be regarded as a trainee with time for education. It was recommended that the trainee should spend at least a further six months in general medicine or surgery after the pre-registration year before going on to specialise.

It was expected that the undergraduate teaching centres would cater for the training of specialists and that this would require larger staffing complements. A number of institutes in special subjects were recommended to be developed to spearhead postgraduate education and research.

For GP refresher courses the committee viewed intensive courses as a short-term solution. In the longer term GPs should be encouraged to take up clinical assistantships which would offer them the chance of clinical experience which was considered of more value. It recommended that courses be of a practical nature but that in order to maintain a high standard, the responsibility for organising these courses should rest with the universities.

One recommendation was published in advance of the full report due to circumstances at the time. With the end of the war in sight and the movement towards refresher courses for returning medical officers, the committee intimated its proposal for each university to appoint a special committee or board of postgraduate studies. This committee would

take over the administration of postgraduate courses and would form the official channel for government funds for this purpose.

One of the many results of the Goodenough report was the establishment in 1945 of the British Postgraduate Medical Federation, turning the specialist hospitals into formal postgraduate institutes of the University of London. The aim of the Federation which it is interesting to contrast with that of the Polyclinic half a century earlier was "to enable each member of the medical profession, no matter what his professional field may be, to be in constant touch throughout his career with the leaders and teachers of medicine and with wiser and more experienced colleagues". On its establishment the Federation took over the running of refresher courses for general practitioners from the British Postgraduate Medical Hospital and School, leaving the latter to concentrate on more academic pursuits.

The first director of the Federation, Sir Francis Fraser, maintained that postgraduate education in the regional hospitals would be centred around the specialists in the teaching hospitals who were in daily contact both with university staff and with district hospital doctors and GPs. He believed that postgraduate medical education must be entrusted to the universities in order to avoid the danger of there being only purely technical courses. (Fraser, 1946)

The end of another World War saw another opportunity to evolve courses for demobilised doctors and this time these were to form the basis of a certain amount of postgraduate activity by the universities in the re-introduction of the intensive refresher courses. Goodenough, as stated above had recommended that these refresher courses be organised through university postgraduate committees thus providing the initial catalyst to the introduction of regional postgraduate committees. These refresher courses were in addition to the lecture series being run by the Royal Colleges.

At this time Glasgow and Edinburgh were very much ahead of their English counterparts in providing vacation courses at their respective Royal Infirmaries, offering graduates the chance of study in general medicine and surgery.

Something which was to have a major impact on every aspect of medical life, was the introduction in 1948 of the National Health Service. The changes which the NHS wrought were felt throughout the medical population including the provision of postgraduate medical education. Now, as the employer of a great proportion of the nation's doctors, the government had a say in the education of its staff and a duty to do something about it. And indeed it began to take responsibility right from the start. The 1946 NHS Act had made money available for General Practice refresher courses in much the same way as had occurred before the war.

In addition, the introduction of the National Health Service established the current staffing structure of three training grades - senior house officer, registrar and senior registrar, followed by one career grade of consultant. This structure was developed from that which had been in operation in the voluntary hospitals before the war and owes more to tradition than to educational policy. With minor exceptions (e.g. the staff grade) there has been little change in this structure over the last forty years.

For many people however, the biggest milestone in postgraduate medical education was the introduction in 1953 of the pre-registration year. For the first time, all newly qualified doctors, whatever their future career plans, had to spend twelve months in hospital training posts. The Goodenough report, in recommending the pre-registration year nine years earlier had emphasised the importance of the junior house officer being regarded as a student. Registration was to be witheld until satisfactory completion of the year. The aim of this year was to consolidate the knowledge gained in the undergraduate years and to widen the student's experience under the guidance and supervision of a consultant. In this way the student would develop a sense of responsibility, undertaking the same duties as a house officer but with a smaller workload to allow time for private study, and personal investigations. An important part of the pre-registration ethic was that there were to be no examinations at the end of the period. Supervising

consultants were instead required to certify to the satisfactory completion of the prescribed period. Full registration would only be granted on the production of these certificates.

The Last Twenty-Five Years

The sixties saw a marked change in the organisation of postgraduate medical education. This change began with the Christchurch conference in 1961 as a result of which postgraduate centres and clinical tutors in each region began to appear. These centres were established with the help of grants from the Nuffield Provincial Hospitals Trust who had been instrumental in organising the conference.

Christchurch was a private conference held in Oxford in December 1961. This conference brought together representatives from many of those bodies interested in postgraduate medical education (e.g. the Ministry of Health, the University Grants Committee, the universities and the colleges). The meeting was called to look at the arrangements for postgraduate medical education and how these might be improved. It recommended a scheme for postgraduate medical education in the UK which was based to a large extent on the American system. (Pickering, 1962)

The basic unit of postgraduate training was seen as the district hospital. This hospital required certain facilities

before it could be termed a centre for postgraduate medical education.

These facilities came under three headings : standard of service, physical facilities and atmosphere.

On service, the conference decreed that unless a hospital reached a minimum standard it should not have training posts at all. These standards included a good general medical and surgical service; clinical pathology services; a post-mortem service; good medical records and out-patient facilities.

On physical facilities a library and ward laboratories were considered compulsory. In addition the centre required meeting rooms, a room for the clinical tutor, a dining room and married quarters.

On atmosphere, the conference was looking for liveliness, curiosity and inquiry. This was dependent on the attitude of both senior and junior staff, the appointment of a clinical tutor, the organisation of a suitable programme and staffing generous enough to allow staff time to participate. The role of the clinical tutor was touched upon, particularly in regard to involving GPs in clinical discussion.

The conference also recommended that postgraduate medical education be organised on a regional basis centred around a

university. The university concerned should appoint a postgraduate dean or director who would be convener of a regional committee representing the university, the colleges and the health authorities. In addition, the conference perceived a need for a central organisation mirroring the constitution of the regional committee.

Several government reports followed in the next few years, The first of these was the Platt report. This report was primarily a staffing report which aimed for a consultant-based service. It stipulated that the Senior Registrar grade was a training grade with the numbers of Senior Registrars being related directly to the number of expected consultant vacancies. Training was also touched on with a recommendation for rotations to include non-teaching hospitals. (Joint Working Party on the Medical Staff Structure in the Hospital Service, 1961)

On general practice, the committee recommended two years hospital experience before entering private practice. This report also recommended the establishment of the grade of medical assistant.

The report on postgraduate medical education and the specialties with special reference to London was in some ways different from the others. The Minister of Health had already issued a statement in June 1961 regarding his intention to group the specialist hospitals into two groups

following consultation with interested parties. He then appointed a committee under the chairmanship of Sir George Pickering to look at this proposal from an educational point of view. (Ministry of Health, 1962)

This committee recommended that the ideal solution would be for four to six special hospitals to be grouped around the periphery of a circle with shared facilities of library, lecture room and dining room in the centre. This would offer the advantages of separate institutions for each specialty thereby maintaining the identity of each special hospital while avoiding the associated isolation.

Outside London, the committee was of the opinion that special units in general hospitals had an important role to play in postgraduate medical education regionally.

The Porritt report, although dealing with a review of medical services in Britain, had a great deal of important points to make about postgraduate medical education. Many of these echoed previous reports. The report stressed that the "standard of medical care must depend on the efficiency of medical education", and made the important point that graduation was no longer synonymous with qualification, emphasising the need for postgraduate medical education. It bemoaned the fact that for the majority of trainees postgraduate medical education merely consisted of experience without adequate supervision. (Medical Services

Review Committee, 1962)

The burden of responsibility was placed fairly and squarely on the health service as the employer , not just for postgraduate medical education but also for continuing medical education. In addition Porritt favoured the formation of a central independent body representing colleges, associations and universities to coordinate postgraduate training.

Following the generosity of the Nuffield Provincial Hospital Trust, the government recognised its responsibility for postgraduate medical education in 1964 with the publication of circular HM(64) 69 which stated that continuing medical education was a fair charge on NHS funds.

The first move towards some form of central organisation for postgraduate medical education came in 1962 with the Scottish Postgraduate Medical Association five years before a similar body was established in England and Wales. Although the Scottish body was purely advisory and had no powers it marked an important point in the development of postgraduate medical education because the need for a central forum for discussion was recognised.

The report of the Wright committee was aimed primarily at Scotland and restated the principles of Platt. It provided detailed recommendations for the staffing establishment in

each specialty within each region in Scotland.(Scottish Home and Health Department, 1964)

A few years later, the report of the Scottish Postgraduate Medical Association on postgraduate medical education in the National Health Service in Scotland was more in the nature of a discussion document. Nevertheless its findings were important. (Scottish Postgraduate Medical Association, 1966)

The terms of reference of this committeeagain under the chairmanship of Dr Wright were quite specific. It was expected to enquire into the needs of postgraduate medical education in Scotland. Specifically this meant: further training for pre-registration house officers; inservice training for registrars; coordination of training for specialists; vocational training for GPs; organisation of training for overseas students and the retraining of married women doctors.

The report started with a detailed definition of postgraduate medical education and underlined the sharp distinction between postgraduate medical education and undergraduate medical education.

On pre-registration the committee felt that the evidence they had heard suggested there was a general agreement on a two year pre-registration period with one year in fairly general posts and a second more specialised year.

On the subject of registrars, the committee felt that a ceiling on numbers was needed to avoid disappointment further up the career ladder. The working party were in favour of planned programmes of training and of rotations to vary the training experience.

Facilities for training were discussed and it was felt that a library and accommodation for lectures were important pre-requisites in any hospital.

They urged for the setting up of a central body to coordinate postgraduate medical education in Scotland and also for regional committees both of a tripartite nature. That is, with representation from the Universities, the Colleges and the NHS.

Finally, the report recommended the setting up of a careers advisory service.

In 1967 a Central Committee for Postgraduate Medical Education was established in London with funds provided again by the Nuffield Provincial Hospitals Trust. Originally set up as a purely English body, its remit was extended almost immediately to cover Scotland and Wales. As with the earlier Scottish body, the Committee was an advisory body acting as an informal and unofficial clearing house for postgraduate medical education. This Committee had no representation from

the National Health Service.

A year later The Royal Commission on Medical Education under Lord Todd which had been set up in 1965 reported. It is often quoted as the report on postgraduate medical education. The report recommended several new concepts in postgraduate medical education. It began by stating that "the aim of the undergraduate course should be to produce not a finished doctor but a broadly educated man who can become a doctor by further training" (Royal Commission on Medical Education, 1968, p. 23).

It saw the pattern of postgraduate medical education changing to include the intern or pre-registration year and three years general professional training before further professional training in the chosen specialty. This would be followed by continuing medical education throughout the rest of a doctor's career. (Royal Commission on Medical Education, 1968)

The Commission emphasised the common features of specialty training and urged for a three-year scheme of planned training posts. Thus if career plans changed, much of a trainee's experience would still be relevant. In addition the report recommended the merging of the SHO and Registrar grades. This pattern was also recommended for GP training with three years general professional training before going into practice.

It discussed at length the problems of the current assessment procedures for examinations and put forward an argument for continuous assessment of all trainees. To that end, it recommended the rationalisation of the examination structure of the Royal Colleges and Faculties, in order that the examinations might bear more relation to training.

Todd also recommended vocational registration. It was felt that registration as it now stood no longer marked qualification and that some form of recognition of competence was required at the end of training.

The report also stressed the importance of continuing medical education. However it came out strongly against making this compulsory. "...compulsory continuing medical education would not in our view create the receptive spirit which is necessary if training is to be effective" (Royal Commission on Medical Education, 1968, p. 75).

Todd followed previous reports in recommending a central organisation for postgraduate medical education together with a network of regional committees. As a result central Committees for England, for Scotland and for Northern Ireland were established in 1970 together with their regional counterparts.

The report of the committee under the chairmanship of Sir George Godber came out in 1969, only a year after Todd, and

echoed many of the recommendations of that report. (Working Party on the Responsibilities of the Consultant Grade, 1969)

Like Todd, Godber was in favour of vocational registration. He also recommended that the nature of the service contribution of each doctor in training should be appropriate to the requirements of that training. The said training should last about eight years, leading to one permanent career grade to which trainees might be appointed in their final year of training after open competition.

The report emphasised the need for an equilibrium between the number of staff in the training grades and the number of consultants.

Few of the recommendations made by the Todd report and the Godber report were implemented. In particular, vocational registration was fully discussed but was finally dropped.

The committee under the chairmanship of Dr A Merrison which reported in 1975 was concerned with the regulation of the medical profession and thus by implication with education, particularly postgraduate medical education and continuing medical education. (Committee of Inquiry into the Regulation of the Medical Profession, 1975)

The committee recommended the introduction of specialist registration similar in nature to the vocational

registration proposed by Todd seven years before but never implemented.

This recommendation formed part of an overall scheme to reorganise the General Medical Council in order to make it a better regulator of the profession.

The pattern of training was also discussed. A proposal for graduate clinical training was put forward which would include the current pre-registration year together with the years of general professional training identified by Todd. General registration would follow this period. Several years of specialist training would follow leading to accreditation as a specialist and specialist registration.

The committee recommended that the staffing provision for service needs should be larger than that needed for the perceived service load, in order to allow staff time for education.

The General Medical Council's role in continuing medical education was also discussed. "Unless a doctor keeps abreast of medical developments it is likely that his competence as a medical practitioner will be seriously affected" (Committee of Inquiry into the Regulation of the Medical Profession, 1975, p.47).

The report of the Merrison committee resulted in the Medical

Acts of 1978 and 1983 the latter giving the General Medical Council responsibility for all stages of medical education while the former removed from the universities the need to produce graduates competent in medicine, surgery and midwifery.

In 1976 an EEC directive came into force ensuring the free movement of doctors within the European Community. In other words, doctors who had trained in a Community country were free to travel and work in any country within the Community. This had important ramifications for the training of doctors both here and elsewhere in the Community, particularly with the stipulation of standards for each specialty.

Dr Merrison, now Sir Alex Merrison, also chaired the committee in 1979 which looked at the National Health Service. Although less concerned with postgraduate medical education this time, the committee did make recommendations which would impinge on training. (Royal Commission on the National Health Service, 1979)

These recommendations included the introduction of audit and peer review, an attempt at interprofessional training and the need for training programmes in the shortage specialties. The importance of medical audit to postgraduate medical education was stressed. "Evaluation of patient care and postgraduate education are ... closely linked and this is widely recognised" (Merrison, p. 176).

Merrison recommended that consultants who take responsibility for teaching students, should have time for this written into their contracts. Also on education, he proposed the establishment of postgraduate centres specifically for overseas doctors.

In 1981, the Social Services Committee under Renee Short looked at medical education, and did not like what it saw. They were particularly concerned about the risk to patients resulting from too much care being undertaken by junior doctors and on the discontent becoming obvious amongst junior staff. (House of Commons, 1981)

After reviewing the poor record of success of previous recommendations, the committee listed a vast number of recommendations of its own. These were based on the premise that a higher proportion of patient care should be carried out by fully trained medical staff. Many of the recommendations had to do with manpower, with a view to cutting the ratio of junior staff to consultants.

They recommended that the General Medical Council should develop its role in relation to coordinating postgraduate medical education. This would ensure that minimum standards of training were enforced.

Their view was that training should include at least one

year in a specialty other than that chosen for a trainee's career, and they proposed planned programmes of training to include both teaching and non-teaching hospitals. The committee therefore envisaged the pattern of training as one year's general clinical post-registration experience, a probationary year in the chosen specialty then three to four years specialist training. This specialist training would encompass the current registrar and senior registrar years.

Careers advice and guidance were considered extremely important with both the Postgraduate Dean and the postgraduate tutor developing their respective roles in this area.

The Social Services Committee looked at medical education again in 1985, to review what progress had been made following their recommendations. On the whole, they were disappointed with the lack of progress although they did welcome the General Medical Council's initiatives in the area of postgraduate medical education. (House of Commons, 1985)

The General Medical Council, having only recently been given responsibility for postgraduate medical education (Medical Act, 1978), issued two draft documents in 1986 which caused a great deal of controversy in the medical profession. The first dealt with general clinical training, while the second dealt with specialty training. Of the many recommendations in these two documents, the most controversial and the most

discussed was the proposal for a designated trainer (later renamed educational supervisor) responsible for each trainee. (General Medical Council, 1986; 1986a)

The recommendations on general clinical training were a revision of those issued in 1980 and referred in the main to the educational aims of general clinical training. The education committee of the General Medical Council recorded its intention to issue a discussion document proposing a second non-mandatory year of general clinical training but this document notwithstanding, it set out its revised recommendations for the pre-registration year as it now stood.

The aims of general clinical training according to the report were to give the student general clinical experience, with opportunities to consolidate and apply knowledge gained in the undergraduate years. This the committee argued should be provided through general experience in medicine and surgery. At this stage in a trainee's career there was no place for very specialised training. The content of any training should concentrate on broad skills in areas such as communication, diagnosis, teamwork, evaluation of quality of care and commom medical emergencies.

The committee set out criteria for the approval of pre-registration posts and for the monitoring and assessment of trainees. Supervision, the committee recommended,

should be the responsibility of a designated trainer.

On basic specialist training the recommendations were fairly similar. The committee stressed the common attributes of all practitioners and the need for broad, general training at the early stages of a trainee's career.

The needs of the trainee were set out. These included modelling on work done by his superiors, good supervision, formal teaching, time for study and self-assessment, and feedback. The committee stressed the need for a balance between theoretical and practical training and again the role of the designated trainer.

The committee was of the opinion that some form of indicative register of specialists was inevitable at some time in the future. It argued that there were good educational reasons for establishing a register but recognised that the complexity of problems involved needed much further consultation.

Staffing has always been one of the major problems to beset postgraduate medical education. The latest attempts to solve some the problems inherent in the current staffing stucture were the Hayhoe report and the Shaw report. Achieving a balance was published in 1986 with a plan for action for its implementation a year later. The "balance" which the title wished to achieve in this report was a

staffing one. Over the years an imbalance had developed between numbers of consultants and numbers of junior staff in particular at the registrar level, known as the registrar bulge. The Hayhoe committee recommended ways of diminishing that bulge. (Ministry of Health, 1986; 1987)

Its recommendations hinged around a greater involvement by consultants in patient care. It saw this being achieved by an increase in consultant posts, a scheme of early retirement for consultants, the Senior Registrar establishment being more closely linked to the number of consultants, an overall reduction in registrar posts with registrars being designated as either "career" or "visiting" registrars, and a controlled expansion in the number of senior house officers. In addition, it recommended the introduction of the intermediate service grade or staff grade as a non- training grade.

Careers advice was seen as important particularly for the senior house officer group and for those doctors who were not expected to be successful in their chosen career.

All this was dependent on the concept of the safety net which meant that at any time, the staffing of a unit should never drop below an agreed safety level for the care of patients.

The committee saw the merging of the Senior Registrar and

registrar grades into a single grade being an inevitability in the long term.

Meanwhile, in December 1986, exactly 25 years after the original conference in Christchurch, a commemorative seminar was held at Green College, Oxford to look at how far postgraduate medical education had progressed in 25 years. The papers presented at that seminar and at a follow-up meeting six months later in Birmingham, painted a picture which although not exactly gloom, doom and despondency, voiced disquiet about the state of postgraduate medical education. (Green College, 1987)

Major themes emerging from these two linked meetings included the move to a pattern of multi-disciplinary centres, the need for evaluation, the consultant's responsibility for training, careers advice and the need for research.

There was general acceptance of the fact that Christchurch had been a major catalyst towards the current system of postgraduate medical education. However, almost everyspeaker warned the conference about resting on its laurels. Postgraduate centres had been built up through a partnership between the National Health Service, the doctors and private enterprise. However, there was now a move towards multi-disciplinary centres which would bring their own problems, for example in conflict of professional interests.

Several speakers stressed the need for time in the contract of consultants for education over and above the service commitment. This was especially important for tutors, but should be provided for all consultants particularly in the light of the General Medical Council's proposals on educational supervisors. It was pointed out that training needs service but equally service needs training. The role of the Postgraduate Dean was seen as central to postgraduate medical education, linking the service and training strands. The meetings emphasised that teaching was not an optional extra.

Continuing medical education was discussed, particularly in regard to GPs who to a large extent had now taken responsibility for their own education. The point was made that maintaining competence is far more difficult than attaining competence in the first place.

The need for evaluation of postgraduate medical education and for research were also touched on. The move towards audit meant that everything must now be cost effective and postgraduate medical education was no exception. However, resources must be made available for educational research as a priority.

The role of the central organisation was discussed, and in particular its failure to coordinate postgraduate medical education as originally planned. The delegates felt that

in part this failure was due to the power structure of medicine with its inherent tensions when specialty interests overrode general educational values.

Teaching methods and in particular the new technologies were discussed, as were the need for better assessment instruments.

The meetings recorded their commitment to the principles of the Hayhoe report and looked forward to its implementation.

The Shaw report, although commissioned before Hayhoe, came out some months later. It was a strictly Scottish report, but nevertheless its recommendations were remarkably similar to Hayhoe. The differences lay not so much in the broad recommendations but in the detailed staffing targets for each specialty. (Shaw, 1987)

Shaw saw the registrar grade being sub-divided. Career registrars would be UK trainees aiming further up the career ladder, while visiting registrars on the other hand would take up training posts before returning to their own country.

In order to control the spiralling numbers in the registrar grade, Shaw recommended a carefully controlled expansion in senior house officers. He also saw some sub-division in this grade with three stages of senior house officer

depending on the trainees level of experience from basic post-registration through general professional training to those in class III who would be embarking on basic specialist training.

The changed staffing structure also included a proposal for a non-career grade. Like Hayhoe, Shaw embraced the concept of the safety net which coloured his recommendations on staffing numbers.

The respective roles to be played by the regional committees and the Royal Colleges were defined. The report emphasised the importance of career counselling and the role of the regional committees in this. "If expensively acquired skills are to be fittingly used, the trainee must at all stages have access to whatever level of help he needs at the time" (Shaw, 1987, p.26).

The Current Situation

In the last couple of years the Council for Postgraduate Medical Education in England and Wales has been replaced, after a review exercise, by the Standing Committee on Postgraduate Medical Education. A similar review exercise in Scotland was also undertaken but the Scottish Council was deemed to be doing its job and was therefore allowed to remain.

The latest report which will profoundly affect postgraduate medical education is the government white paper on the national health service "Working for patients". It is generally expected that this will become legal later in this session of parliament. The recommendations which are of most concern to postgraduate medical education are those dealing with the postgraduate training allowance for general practitioners and those proposing that hospitals may opt out of health board control.

In the meantime, junior doctors are calling for better training programmes and shorter hours. If their calls for a shorter working week are heeded this too will have an influence on postgraduate medical education for two reasons. Firstly the Colleges and Joint Higher Training Committees argue that shorter hours would mean longer periods of training to compensate. Secondly if junior doctors worked shorter hours then either more doctors would be required to staff the service or both junior doctors and consultants would have even less time to devote to education than they do at present.

CHAPTER TWO

POSTGRADUATE MEDICAL EDUCATION IN THE WEST OF SCOTLAND

Early History

The history of medicine in Glasgow is different from the history of medicine elsewhere in the United Kingdom because unlike their equivalents in Edinburgh, Dublin and London, the physicians and surgeons in Glasgow organised themselves into a single college. This college was formed in 1599 by a charter from James VI granted jointly to a physician and a surgeon. Admittance to this college was different however for the two groups with surgeons being required to sit an exam while the physicians had to produce evidence that they possessed a university degree. (Duncan, 1896)

In the early days of the Facultie of Chyrurgeons and Physitians, as it was known, very few physicians applied for entry because they did not want to be associated with tradesmen.

In 1672 the physicians approached the Facultie to renegotiate entry to what became in all but name two separate bodies within one. On the one hand there was the college of physicians and surgeons and on the other there was the city guild of barbers and surgeons. This link between surgeons and barbers was not broken until 1722.

Meanwhile in 1697, the Facultie acquired land near the Tron church on which they built a hall. The opening of these premises a year later allowed the Facultie to begin the collection of a medical library. Many of the books were acquired as donations from members, friends and patients and reflected the composite nature of the Facultie. The importance placed upon the medical library can be gauged from the fact that the "collector and bibliothecarius" was an office-bearer of the Facultie.

The following century saw Glasgow University begin to award degrees in medicine and in 1742 to provide some teaching in medical subjects. However, it was only in 1794 with the opening of the Royal Infirmary that Glasgow could provide clinical teaching.

At the beginning of the nineteenth century the numbers of men qualifying as doctors of medicine from the Scottish universities began to multiply. However the standard of courses and examinations was not uniform. In order to practice in Glasgow therefore, doctors were required to become members of the Faculty or else face prosecution.

The nineteenth century also saw the establishment of medical societies, some of which are still in existence today. The first of these was the medico-chirurgical society of the university in 1802 followed in 1814 by the Glasgow Medical

Society. The latter group were granted the use of the premises of the Faculty for their meetings. These first two were followed in 1844 by the medico-chirugical society of Glasgow which amalgamated with the Glasgow Medical Society in 1866 to form one body. There followed a burgeoning of clubs and societies until the end of the century.

Glasgow also went down in the history books by being the first provincial city to publish its own medical journal. The Glasgow Medical Journal published first in 1828 was followed in 1831 by the Medical Examiner.

Twentieth Century

At the beginning of the 20th century, various hospitals in Glasgow were making attempts at systematic postgraduate teaching, with a degree of success. The process of formalising the system of postgraduate medical education in Glasgow and the West of Scotland started in March 1914, with a meeting of the university medical staff and the staff of the specialty hospitals in Glasgow to look principally at the coordination of the efforts already being made by various hospitals independently. This ad hoc group appointed a "general committee for postgraduate medical teaching in Glasgow" with representatives from all the teaching institutions and from the teachers.

However, this committee only met three times before the

outbreak of war. With the advent of the first World War, all plans of such a nature were shelved until peace came again. In 1919 there was a meeting of the general committee together with the Faculty of Medicine of the University to review the situation.

At the end of the war, the need for the formal organisation of postgraduate medical education was heightened by the anticipated demand for postgraduate instruction from returning doctors who had served in HM Forces immediately after graduation.

The general committee together with the Faculty of Medicine eventually resolved themselves into the Glasgow Postgraduate Medical Association in 1920.

The momentum for this organisation was greatly helped by the personalities involved at the time, not least Prof. McAllister, principal of Glasgow University and first chairman of the Glasgow Postgraduate Medical Association, whose membership of the International Bureau for Postgraduate Instruction in Berlin greatly influenced his commitment to the scheme. In particular he was moved to action by his realisation of the "sporadic and imperfectly organised character of postgraduate study in Britain".

The organisation of refresher courses for returning practitioners developed over the course of the next few

years into a programme of refresher courses for GPs on many topics and in the late thirties examination preparation courses for specialists. In 1938 after several years of negotiation the Department of Health instituted a scheme whereby insurance practitioners were entitled to a refresher course every five years at the Department's expense. These courses were provided in Glasgow by the Association. This pattern was set to continue but for the outbreak of the Second World War when work was again suspended for the duration.

Post-war developments

Come 1944, with the end of the war in sight, the members of the Association met to discuss again the needs of demobilised medical officers. This time however, the government intervened, insisting any funds go direct to the universities for the reimbursement of fees etc. This prompted the University Faculty of Medicine to set up its own committee (before the dissolution of the Glasgow Postgraduate Medical Association) on which the university members of the Glasgow Postgraduate Medical Association were to sit. The remit of this new committee was to provide courses for demobilised medical officers. The Glasgow Postgraduate Medical Association was therefore disbanded in 1945 with its funds going not to the new committee but to the Royal Faculty of Physicians and Surgeons for postgraduate medical education purposes.

The new postgraduate medical education committee again set about organising schemes for returning medical officers, both GPs and specialists this time, following Department of Health guidelines. Three schemes were instituted nationwide. The first, for graduates who had been called up before going into private practice, aimed to give some clinical experience particularly in those areas not seen in wartime, e.g. the health of children and of women. The second for established GPs was more in the manner of the previous short refresher courses. Finally, for intending specialists, the committee set up clinical training posts. In contrast to the schemes undertaken after the First World War, those run this time were funded by the government.

These schemes gradually developed from an essentially emergency scheme into a formal postgraduate training scheme. Over the course of the next few years, following the advent of the National Health Service in 1948, the committee flourished running an ever expanding programme of lectures, demonstrations and clinical attachments.

From 1947, the post of Dean of the Faculty of Medicine became a permanent post, the first incumbent being Prof. Wishart. The post of Dean also included that of Director of Postgraduate Medical Education and Convener of the Postgraduate Medical Education Committee.

Another change occurred at the end of 1960, with the

committee reforming under a new name, the Postgraduate Medical Board, with the status of a committee of the Faculty of Medicine. This committee included coopted members from the main Royal Corporations and an observer from the Regional Hospital Board.

Following the Christchurch conference in 1961, and the offer of grants from the Nuffield Provincial Hospitals Trust, 21 postgraduate advisers, as they were then called, were appointed in the Western Region, together with two clinical sub-deans for undergraduate medicine.

In addition to these postgraduate advisers Sir Charles Illingworth held a unique position in postgraduate medical education. From 1966 until the establishment of the Regional Committee in 1970, he was appointed by the Western Regional Hospital Board as regional postgraduate adviser with the duty of coordinating postgraduate facilities throughout the region. During the time of his appointment, he edited a journal called the Medical Postgraduate which aimed to be a vehicle for information on postgraduate medical education in the West of Scotland.

Meanwhile in 1962, the Royal Faculty of Physicians and Surgeons changed its name to the Royal College of Physicians and Surgeons of Glasgow, bringing it in line with the other colleges. In the same year, the Scottish Postgraduate Medical Association was created.

In 1966, the University Senate intervened with the Postgraduate Medical Board to have postgraduate dental education added to their remit. An adviser in postgraduate dental studies was appointed in 1971.

By 1969, Glasgow claimed to have the largest postgraduate organisation outside London.

The publication of the Todd report in 1968 recommended the setting up of a central organisation for postgraduate medical education and a network of regional committees. This recommendation resulted in 1970 in the establishment of the Western Regional Committee for Postgraduate Medical Education. For the first time, the health authorities as the major employer were officially a part of the postgraduate organisation. With the increased representation, the committee was much larger than its predecessors. For this reason, a small executive committee was also appointed.

It was also in 1970, that the Board decided to start the instigation of postgraduate centres. Although there had been postgraduate advisers since 1962, the Department of Health in Scotland had maintained a policy of not providing postgraduate centres in Scotland. This policy was revised following the proposed reorganisation but there appears to have been little enthusiasm from the rank and file doctors.

On the retiral of Prof Fleming as Dean of Medicine and Director of Postgraduate Medical Education, the introduction of a university post of postgraduate dean was discussed at some length and Prof Cruikshank was duly appointed as first Dean of Postgraduate Medicine in 1971. A proportion of his salary together with a proportion of the costs for the administration of the Western Regional Committee were to be reimbursed by the the Regional Board to the University. This administration comprised for the first time, staff employed specifically to service the Committee and to administer the burgeoning range of responsibilities.

The constitution and composition of the Committee changed again as a result of the health authority changes in 1974. The Scottish Council had recommended at that time, that the Regional Committees be dissolved and a committee for each health board be created with a coordinating committee at the centre to oversee arrangements. The feeling of the Western Regional Committee and of those in the West of Scotland however, was to retain what was a very successful central committee and this was eventually agreed, to the extent that this became the pattern for the whole of Scotland. The result was the West of Scotland Committee for Postgraduate Medical Education with a slightly altered composition to take account of the six health boards as opposed to one regional board, making it by far the largest postgraduate area in Scotland.

The last ten years

Recent developments have reflected the move towards new technology. The first of these was an initiative which created a database of medical and dental manpower in the West of Scotland. This initiative has now been adopted throughout Scotland on the West of Scotland model. Following on from this, in 1985 an on-line database was created to offer doctors and dentists in the West of Scotland access to information on educational activities. This last database came under the auspices of the newly formed Research Unit, which began in 1985 to undertake research into medical education topics. In 1986, after some negotiation, the Department of Postgraduate Medical Education was formally recognised as a department of the University of Glasgow. This was an important step because it gave the Committee an academic base from which to develop educational courses and research. This academic base, which was developed in collaboration with other University departments, chiefly the Institute of Educational Studies, led to the instigation of the Certificate of Education and Medicine in 1988.

In September 1989 the Committee ratified a revised constitution which encompassed all these new functions.

CHAPTER THREE

THE CURRENT SITUATION IN POSTGRADUATE MEDICAL EDUCATION

Organisation

Postgraduate medical education in the United Kingdom is currently the responsibility of a multitude of bodies. The General Medical Council is the governing body for postgraduate medical education. It is required by law to coordinate medical education and to ensure that high standards of quality are maintained. It does this by delegating responsibility for specific issues to other bodies. The power to set curricula for individual specialties is devolved from the General Medical Council to the Royal Colleges for general professional training and to the Joint Higher Committees for higher specialist training. In their turn the Colleges run higher examinations and the Joint Higher Committees award accreditation on the completion of training. These two groups also approve hospital posts for training purposes.

While the General Medical Council deals with the regulation of the profession, the Standing Committee on Postgraduate Medical Education and its counterparts, the Scottish Council for Postgraduate Medical Education and the Council for Postgraduate Medical Education of Northern Ireland are the advisory bodies on educational matters. Unlike the General

Medical Council, the Standing Committee has no legislative authority.

In addition to these national bodies, in each region there is a Regional Postgraduate Committee with representatives from the universities, the health authorities and the colleges in that region. It is the responsibility of these committees to oversee postgraduate medical education at a regional level, to coordinate training, to provide courses, to offer careers advice and to provide a forum for discussion.

At a local level, each district has a postgraduate tutor appointed from among the clinical staff. His duties in collaboration with a district educational committee include the provision of a varied programme of educational events, the provision of careers advice and the day to day running of a postgraduate centre. These centres range in size and facilities from a single office to purpose built centres with on-site catering and audio-visual production. The postgraduate tutor is aided by a postgraduate centreadministrator and, in the larger centres by a librarian.

Training patterns

On graduation, a young doctor must by law complete twelve months pre-registration or general clinical training before

he can register with the General Medical Council. This period is designed to consolidate the knowledge and skills learnt during his undergraduate days. The pre-registration house officer should still be considered a student during this year and should have the time and opportunity for study and reflection.

Having successfully completed his pre-registration year the doctor commences his postgraduate medical education. If he plans a career in hospital medicine he will then spend two or three years as a senior house officer in a series of six or twelve month posts, all the time increasing his skills, confidence and responsibilities. The next three or four years will be spent as a registrar in his chosen specialty during whichtime, he may undertake some research and will almost certainly sit at least one higher examination.

The step to senior registrar is an important one. Competition for senior registrar posts is keen as this marks the start of higher specialist training and the doctor can now look forward to a consultant post in four or five years. The number of senior registrar posts in each specialty is closely linked to the expected number of consultant vacancies so his chances of progression are good at this stage.

Finally, on average twelve years after graduation the doctor reaches a career post. Thereafter his education should continue throughout his career. During his period of

postgraduate medical education a doctor may attend courses, may present papers, may be involved in seminar groups and small group teaching but the majority of his education takes place on the ward and in the laboratory. Much of the education of doctors is informal and relies on the willingness and skill of his colleagues to undertake the task.

General Practice

If a doctor intends to follow a career in general practice the pattern is somewhat different. Unlike hospital medicine there are legal regulations regarding the training of general practitioners if they wish to practise under the NHS. Each intending general practitioner must undertake a three year approved vocational training period. This may be in one of the approved schemes run by the regional committee or he may elect to create a made-to-measure programme of his own. In either case the three year period must contain certain elements including one year in a training practice. These training practices are specially selected by the regional adviser in general practice for their excellence of service and educational opportunity. General practice trainers, on appointment must attend courses on educational method and if their practice fails to come up to certain standards they may subsequently lose their training practice status.

As with hospital doctors, general practitioners on completion

of their postgraduate medical education must continue to undertake educational activities throughout their professional lives. Until April 1990, the costs incurred in such educational activities were paid for by the government under section 63 of the Public Health Act 1964. From April 1990 this fund will be abolished and general practitioners will receive a postgraduate education allowance each year which will be dependent on their participating in a stipulated number of continuing medical education sessions.

Women Doctors

Women doctors, who now make up 50% of the output of medical schools each year may have special training problems. In order to allow a women doctor to pursue a career and fulfill any domestic commitments, part-time training is becoming increasingly available. In addition women may take a break in their careers to have a family, maintaining their professional interest through a retainer scheme.

Overseas Doctors

In addition to the British doctors in training, the United Kingdom also provides training for a large number of overseas doctors each year. These doctors, chiefly from the developing countries, spend a part of their postgraduate medical education period in this country because it has the reputation for providing training of a high standard.

Contrasts with abroad

In the United States postgraduate medical education is organised differently. On graduation young doctors undertake a year's internship, similar to the British pre-registration year. There then follows three years in a residency programme. Unlike the United Kingdom however, not every hospital runs a residency programme and those which do may have their residency status withdrawn if services and facilities drop below a certain level.

Postgraduate medical education is overseen by a multitude of bodies including the Accreditation Council for Graduate medical Education, the specialty boards, the hospital boards and the Association of American Medical Colleges.

In Canada by contrast postgraduate medical education is organised entirely in a university setting. Only those hospitals attached to medical schools run residency programmes.

Other commonwealth countries work more to a British model. For example in Hong Kong upon graduation doctors undergo a year's pre-registration training. After full registration with the Hong Kong Medical Council, many doctors go abroad to complete their postgraduate education in the United Kingdom or the United States. In addition the universities offer

formal courses for general professional and higher specialist training.

The organisation of postgraduate medical education in Hong Kong is governed by the Central Training Board which makes the overall policy. In addition there are nine central training committees covering the major specialties and four regional training committees covering the four regional hospitals.

Closer to home, the United Kingdom is the only European country which does not run some form of specialist certification, although standards for these certificates vary. The concept of general clinical training is common to all European countries but varies in length from nine months to three years.

CHAPTER FOUR

THE MAJOR ISSUES

In the following pages, I will look at some of the major issues which arise from the history of postgraduate medical education both in the United Kingdom as a whole and in the West of Scotland in particular.

Management

The concept of management in postgraduate medical education has not been fully addressed either at local or at national level. Various issues within management have been discussed but in many case this discussion is merely a description of the status quo.

At a local level, the aims of postgraduate medical education have rarely been set out. Occasionally on a change in the format of the Committee, the functions of the Committee have been stipulated but there is no explicit statement of the aims.

The original meeting in March 1914 commented on "the sporadic and imperfectly organised character of postgraduate medical education" stating that "any step towards unity and better organisation would be a gain" and that "a more imposing appearance would give Glasgow its proper place in

the international movement". These could certainly be taken as the aims of that time. The early papers showed a marked pride in Glasgow and its status. This was reflected in the work of the Committee. The role which the Association assumed during the twenties and thirties was one of coordination and dissemination.

The regional and national organisation of postgraduate medical education has been the subject of debate. Some form of postgraduate committee for each university was recommended by Goodenough and in fact this recommendation, published in advance of the full report, created some action. Christchurch was the impetus behind the postgraduate medical education movement and recommended the establishment of regional as opposed to university committees. Todd took this up in 1968 and it was as a result of Todd that many of the current committees were established in the early seventies. On the national front, Christchurch again was the moving force. The earliest national body was the Scottish Postgraduate Medical Association which published its own report in 1966 calling for a larger more representative committee. Todd was the instigator of the Central Council for Postgraduate Medical Education and the Scottish Council for Postgraduate Medical Education in 1971. Since then the role of the central organisation has been discussed chiefly in the Green College seminar where its lack of success was debated. The English body has since been replaced by a Standing Committee for Postgraduate Medical Education after

a government review exercise.

The roles undertaken by the various bodies and individuals who deal with postgraduate medical education have been discussed at various times. One of the many problems in postgraduate medical education is the number of diverse groups who have some dealings with it. These include the health Boards, the Departments of Health and Education, the Royal Colleges, the University Grants Committee, and the General Medical Council to name but a few. This creates a certain amount of conflict of interests at times and is something which needs further study.

Finance

Financial and other resources for postgraduate medical education have always been a problem. Athlone made some recommendations as to sources of finance in 1921. He suggested a partnership between the state and private endowment. It was not recorded whether this was achieved. The Christchurch conference discussedfinance with a view to justifying the expense which would be incurred if the proposed postgraduate centres were to go ahead. The Nuffield Provincial Hospitals Trust who held the conference proved of great help in this instance with grants for the building of the first postgraduate centres. Porritt also discussed the financial implications of postgraduate medical education, as did Todd and it was after Todd that agreement was reached

regarding the relative responsibilities of the National Health Service and the universities for postgraduate medical education. Not surprisingly finance continued to be discussed and is still a major concern.

These financial problems are reflected at a local level. For example, in 1914, the committee proposed to publish a syllabus but lack of funds precluded this, until money became available through the collection of fees. As early as 1928, the Department of Health was proposing postgraduate study for insurance practitioners from the Highlands and Islands but lack of funds prevented this going ahead. In the early 20s, the committee's finances seem to have been fairly healthy, but as their plans grew more ambitious they began to go into debit. This happened for the first time in 1933 after the first series of free lectures, but the committee did not consider this to be a great problem.

After the Second World War, the University took over responsibility for finance, with the government reimbursing them for costs incurred for the course fees and salaries of demobbed medical officers.

Conflict

Conflicts of various kinds have been discussed in many of the reports. Service versus education is the most common but the Green College seminar also recognised "interprofessional"

and "inter specialty" conflict when professional interests override educational priorities. The conflict between the roles of the various bodies which oversee postgraduate medical education has already been discussed above.

Conflict of one sort or anotherhas dogged the history of postgraduate medical education in the West of Scotland. Primarily there was the service versus training conflict in all its many guises from lack of funds, to too many undergraduate students. But that was not the only conflict. Conflict of a different sort existed between the various providers of postgraduate medical education in particular the college and the university.

Curriculum

Not surprisingly, what to teach has been a major theme. Both for GPs and for specialists there has been discussion not only on topics but also on teaching methods. On many occasions courses were run locally at the instigation of the individual teachers or more rarely of the students. Topics reflected the changing face of medicine e.g. AIDS and computers today, paediatrics and venereal disease in the twenties. Comparatively early, the movement of opinion against didactic lectures was felt.

Far from having any detailed idea of the "curriculum for postgraduate medical education" the local Committee relied

almost entirely on what teachers were prepared to offer. Teaching methods too were unambitious following the traditional lecture and demonstration mould.

Assessment

Methods of assessment have certainly progressed since the Latin oral of the nineteenth century, but there is still a need for methods which relate more closely to experience. Back in 1944, Goodenough was bemoaning the proliferation of diplomas and since then these have increased rather than decreased. Both Goodenoughand Todd recommended some form of rationalisation and coordination between the colleges on examinations but apart from the common MRCP and the reciprocal agreements for the primary FRCS this has not happened yet. Merrison, the General Medical Council and Green College all called for new, better assessment instruments but although techniques like the objective structured clinical examination have been developed the "important" examinations still rely on written and oral tests of theoretical knowledge to a large extent. The problems of assessment are also illustrated by the number of adverts for "exam technique" courses in the pages of the British Medical Journal and the Lancet.

The concept of some form of specialist registration was first mooted by Todd in 1968 and wheels were put in motion almost immediately for legislation to that effect. However, after

consultations this legislation was postponed and has never been enacted. The need for specialist registration was also discussed by Merrison from the point of view of the regulation of the medical profession and the latest General Medical Council reports stated that this issue was inevitably in the long term.

Evaluation

The question of audit although much under discussion today first came up in 1979 in the Merrison report. Audit is regarded with suspicion by many members of the medical profession but if looked at as an educational experience it is an important method of postgraduate medical education. Green College recognised this.

In 1961, Pickering recognised the need for proving the worth of postgraduate medical education. Unfortunately evaluation is a concept which has not been regularly discussed over the years. Only Green College made a substantial issue of it. But with audit and accountability the current watchwords it cannot be neglected. Educational research was also identified by Green College as an important area of concern.

General clinical training

The concept of a period of "internship" or "residency" before a young qualified doctor may go into independent

practice was first discussed in Newman in 1918 and Athlone too recommended this American model for the UK. However, it was only with the publication of Goodenough in 1944 that this idea took root and flowered in the 1950 Medical Act. The first pre-registration year was in 1953. Following its introduction, the pre-registration year continued to be the subject of discussion particularly in regard to its educational nature and the duration it should cover (General Medical Council, 1986).

Goodenough was the first report to record the importance of time for education. A training programme is of absolutely no value without the related time element both for the teacher and the taught. The need for time was also emphasised by Merrison and by the Green College seminar which recommendeda change in doctors' contracts to make education explicit. This need was also reflected in the acceptance of the service versus training conflict which many reports (Christchurch, Todd, Merrison, Green College) assumed was inevitable in postgraduate medical education. No report has however really addressed the problem directly.

The introduction of the pre-registration year brought its own problems of conflict. It was always intended that junior house officer posts should be primarily training posts with the staffing of hospitals being a secondary consideration. However, in practice this proved difficult to enforce. A meeting was called in 1960 to discuss this question. This

conflict of the need to staff the hospitals over the need of trainees has continued to the present day. The reports of Hayhoe and Shaw sought to address this conflict but as with any report which recommends changes to the staffing structure there was considerable opposition from the various specialties within the profession.

Continuing medical education

On continuing medical education, the early reports from Newman, Athlone and Goodenough stressed the need for some form of continuing education for general practitioners and discussed various options for offering general practitioners the opportunity to update their skills. However the continuing medical education of other medical professionals was on the whole ignored until Todd and it was really only the Green College documents which put any emphasis on the need for continuing medical education for ALL medical staff.

Teaching the teachers

If assessment methods were a topic for discussion, so also were teaching methods. Todd looked at this in 1968 and the Green College seminar discussed it in 1986 with much the same conclusions. There is a need not for a change to other methods but for a more varied selection of methods particularly taking advantage of the new technology.

Recently with the moves to appoint educational supervisors attention has been focussed on the need to teach the teachers. Although many doctors will undertake training in non-clinical skills such as administration, few are willing to submit themselves to the mercy of the educationalists. It is often assumed that being a doctor means that one is inherently a good teacher and has no need to study educational method. This attitude is not only wrong but dangerous.

SECTION TWO

MANAGEMENT ISSUES

CHAPTER FIVE

MANAGEMENT IN POSTGRADUATE MEDICAL EDUCATION

Policy

> "Organisational policies are abstractions or generalisations about organisational behaviour at a level that involves the structure of the organisation" (Katz and Kahn, 1978)

Before one can discuss the management of postgraduate medical education in any detail one must look at its policy to see how that policy is formulated and if indeed any policy exists. Elliott (1985) laid down certain prerequisites for a policy to exist. These were a coherent set of statements expressing the intention to do certain things to achieve certain ends and a set of actions clearly designed to translate those statements of intent into reality. In other words it is not enough to simply state what the policy of an organisation is going to be without at least attempting to put these policies into action.

Howell and Brown (1983) while discussing systems analysis claimed that policy making in secondary education has certain

features which distinguish it from policy making in other fields. Firstly it manifests concern for specific educational values which at times take precedence over costs. Secondly it takes place in a decentralised system of government in which the providing institution has considerable autonomy. Both of these points may be equally applied to postgraduate medical education, although the second perhaps more so than the first.

David (1977) created a distinction between policy-making and planning. Policy-making requires decisions on the future state of affairs and can be done by politicians while planning on the other hand requires finding the best means of achieving the ends in the stated context and therefore requires technical expertise.

Aims

> "The ultimate aim of postgraduate medical education must be to improve patient care" (Bevan,1986).

If the aims of postgraduate medical education are discussed at all, they tend to be discussed as homogeneous and shared by all medical staff. However, as Merrison (Committee of Inquiry into the Regulation of the Medical Profession, 1975) pointed out, each specialty has a different job to do and

therefore a slightly different end in sight for training. Could it therefore be argued perhaps that it is false to talk of the aims of postgraduate medical education? Should we instead be looking for the aims of surgical or pathological education? This is a moot point. Personally I don't believe that the specialties are so far divided that this is the case at present but it could well be the case in the future. In this context Jarvis(1984) talked of segmentation where professions are "loose amalgamations of segments pursuing different objectives in different manners and more or less delicately held together under a common name at a particular period in history".

In his summing up of the Christchurch conference, Pickering noted that the annual reports from the British Postgraduate Medical Federation and the training requirements defined by the Colleges emphasised the maintenance and improvement of standards. These were technical questions. Nowhere was there concern with the broader questions of the purpose of postgraduate medical education and how that purpose was to be achieved. (Pickering, 1962)

On the question of goals, Etzioni(1964) defined a goal as a desired state of affairs which an organisation attempts to realise but he then asked, whose vision of the future does the organisation pursue? For example the goal could be the vision of the unit manager or the consultant or the patient. Leading on from this, one could then ask, how do we determine

the goals of an organisation? Do we look at what the organisation does or do we look at what it says the goals are or do we ask the workers? There may well be a discrepancy between real and stated goals and this must be recognised when determining goals. Etzioni also talked about the concept of displacement where there is adherence to policy at the expense of goals.

How valid is it to talk of the aims or goals of postgraduate medical education or of any organisation? Hoyle (1975) examined the phenomenological approach which warns of the dangers of thinking of an organisation as an entity with goals of its own. According to the phenomenologists, goals belong to individuals and will change depending on their concept of the organisation. Thus the goals of a junior doctor who is tired and overworked will change as he rises in his career and gains more status.

In a similar vein Katz and Kahn (1978) also warned against regarding organisations as a single person. They emphasised that policy is the outcome of organisation infighting, mutual concessions and coalition forming. Thus in the following policy statement, what appears as a coherent well-thought-out statement is probably a compromise of several views.

The policy document on the new Scottish Council was revised in early 1970 with the following changes in the aims :
1. The Council was to be essentially an advisory body working

by consent and cooperation

2. Its terms of reference were to coordinate and stimulate the organisation and development of postgraduate medical education and training in Scotland by giving advice at a national level to professional and education bodies and to representative regional bodies established in connection with the organisation and planning of postgraduate medical education regionally; to provide a national forum for discussion of matters pertaining to postgraduate medical education and training and to provide the government with an authoritative source of advice on these matters

(Postgraduate Medical Board, 1970)

Agreement on the goals of an organisation only occurs when those goals are stated in ambiguous and nonoperational terms according to Katz and Kahn (1978). These goals often reflect more the aspirations than the imperatives of an organisation. It is therefore unwise to assume that stated goals are widely accepted objectives. In other words the more vague and woolly an organisation's aims are, the more likelihood there is that these aims will be accepted generally. For example, the DHSS announcement on the establishment of the UK Central Council for Postgraduate Medical Education gave as its purpose : to coordinate and stimulate the development of postgraduate medical education and to provide an authoritative source of advice to the government. (Postgraduate Medical Board 1970) These aims are decidedly vague. Take for instance the phrase "stimulate

development". Almost anything could be undertaken in the name of stimulating development.

Katz and Kahn(1978) identified the problem of organisations which have several policies which appear to reflect competing

goals. This seeming inconsistency can be handled by giving sequential attention to each goal in turn. For example, in a hospital, policies relating to patient care are sometimes inconsistent with policies relating to medical education.

Participation

On the question of policy, Hoyle (1975) proposed that teachers, although they have high classroom autonomy, have relatively little involvement in decision-making when it came to matters of school policy. The same could be said of clinical teachers who within their own teaching have considerable autonomy but at the level of deciding about rotations or accreditation for example they have little input unless they are also active members of the educational establishment, that is the relevant college or faculty. The alternative to this classroom autonomy, is the concept of collegiality in which responsibility for decision-making rests with the "college" i.e. the professional teachers as a group.

Greater participation in decision making is now being

demanded by teachers according to Hoyle who put this down to extended professionality. (Hoyle, 1975) By this he meant that teachers who embraced extended professionality wanted to broaden their horizons by professional collaboration, by involvement in non-teaching professional activities and by keeping up to date through reading the professional literature and taking part in in-service training. In other words they did not see their work as stopping at the classroom door. Many of the characteristics of extended professionality in education could equally be applied to medicine but could they also be applied to medical education? Certainly there is now a burgeoning professional literature on medical education and courses are run by several centres notably Glasgow and Dundee. Those medical educators who take advantage of these opportunities and who extend their professionality in other ways may also now be looking at greater participation in the medical education decision making process.

However, there must come a point where teachers cease to merely participate and begin to wield power. The power of the teachers was discussed by Layton(1982). He felt that although it is true that they should participate in policy-making he questioned to what extent? This whole question revolves around public accountability and creating a balance between professional prerogatives and the interests of the public. In the final analysis the decision makers must be accountable for their actions and it must be

questioned whether the teachers have or want that accountability.

On the topic of decision-making Yukl (1975) saw the forms of decision making on a continuum from high leader influence to high subordinate influence. He suggested that the individual preference for a certain level of participation depended on the importance of that decision to the individual concerned. Thus an individual would have a preference for a different level of participation at different points in the policy making process. In the same way, Weaver(1975) saw policy making as a process from formulation through determination to implementation. Participation in that process may mean anything from determination of policy to merely passive observing of the decision making process.

There has been participation in postgraduate medical education by the teachers in Glasgow since 1919. From the very start, the Committee was composed not only of representatives from the institutions but also from the teachers. (Glasgow Postgraduate Medical Association, March 1923)

The Royal Faculty of Physicians and Surgeons became involved in the Committee in 1944. Until then the composition had been largely hospital based but with the establishment of the new Committee after the war, the Faculty offered to play a part. (Glasgow Postgraduate Medical Association, 1944)

In fact, participation has been a major theme throughout the history of postgraduate medical education in the West of Scotland. The composition has changed over the years to meet the changing needs of the Committee. (Glasgow Postgraduate Medical Association, Postgraduate Medical Education Committee, Western Regional Committee for postgraduate Medical Education, West of Scotland Committee for Postgraduate Medical Education)

The Committee was ahead of its time in 1969 in inviting an observer from the Regional Hospital Board to sit on the Committee for it was only in 1971 with the establishment of the Central Council and its regional counterparts that the representation on postgraduate medical education organisations became truly tripartite.(Postgraduate Medical Board, 1969)

Roles

One of the chief problems which besets postgraduate medical education is the number of different bodies which claim some responsibility over it. It was in an effort to coordinate these competing interests, that the Committee and its national counterparts were established. The problems of role conflict will be dealt with in a later chapter.

Role Theory

Role theory (Burnham, 1975) is based on the premise that a role has a set of expectations attached regarding the kind of behaviour which is considered appropriate for the role. There is a distinction between a position and a role. A person may hold a position but that person performs a role and that role is therefore affected by the personality involved. Specialists have highly differentiated roles and tend to view organisations in the light of their own discriminative needs, interests and knowledge.

Role sets (Burnham, 1975) are the expectations other people or organisations have about a role. However, this is complicated by the fact that it is not only what they say they expect. Many expectations are never put into words. These expectations may be legitimate or illegitimate. In the same way, a person may assume people have expectations about his role which they do not hold. Conflict can arise between the role demands, i.e. expectations of other people, the role conception and the role performance.

This phenomenon was illustrated in 1981 when the local Committee considered the question of whether a postgraduate centre should be used for holding political meetings. (West of Scotland Committee for Postgraduate Medical Education, November 1981). This is a clear example of the centre taking on a role which is not expected of it. This is not to say

that that role is illegitimate.

In an earlier example, the news from the English Colleges that they were about to set up a joint postgraduate committee was met with disapproval from the Committee. They felt that in Scotland, with the existence of the committees both in Glasgow and in Edinburgh, there was no need for a joint committee.(Postgraduate Medical Education Committee, 1949). In other words, they felt that a new committee would try to take over their role.

Role overload (Kahn, 1964) is a common enough phenomenon and occurs when too much work is expected of a particular role and as a result the quality of such work is much poorer. On the other hand, role dissatisfaction (Walton and Dutton, 1975) can involve a lack of recognition and therefore a lack of status. This can occur because of ambiguities in the definition of work responsibilities. Although initially dealing with individuals, Walton and Dutton's work could also be applied to organisations.

Within postgraduate medical education, there is frequently a lack of recognition of the role which one organisation or another performs.

An example of role dissatisfaction is a request from Law Hospital for sponsorship from the local Committee in order to hold a week's postgraduate course. Just a year before

the Christchurch conference encouraging such educational activities from a district hospital, their request was turned down because the hospital was otherwise uninvolved in medical education. (Postgraduate Medical Education Committee, 1960)

Another, earlier example comes in the complaint that the status of postgraduate instruction was unclear in terms of the priorities of undergraduate pre-clinical teaching. (Postgraduate Medical Education Committee, 1949) In other words undergraduate teachers were being asked to undertake work for postgraduate medical education which they felt it was not their role to perform.

The concept which an individual has about a particular role is important in any interaction with that organisation. (Handy, 1984) The way in which a communication is received will depend on the perception that the receiver holds about the sender. This is extremely important in an area of ambiguity. For example, when the post of Dean of Postgraduate Medicine was established he was required to maintain some clinical commitment, thus signalling to others that his role continued to be a clinical one despite his move into "academic circles". (Western Regional Committee for Postgraduate Medical Education, 1970)

Role expectations

The roles of the various bodies and individuals involved in postgraduate medical education at national level has been a matter of some ambiguity. Each writer stated that a particular action is required of a particular organisation but consensus on roles is far from being reached.

For example, the responsibility for providing refresher courses for general practitioners was placed by Goodenough (Interdepartmental Committee on Medical Schools, 1944) on the Universities and later (Health Services and Public Health Act, 1968) the responsibility was placed on the Secretary of State to fund continuing education activities for doctors and dentists through Section 63.

The Christchurch conference (Pickering, 1962) recognised the duty of senior medical staff to teach their juniors and this recognition was echoed later with the call for teaching to be included in staff contracts.

The role of the postgraduate tutor was first raised at the Christchurch conference (Pickering, 1962) where the concept of a doctor designated to take responsibility for the organisation of facilities and of an educational programme was defined. Peaston (1986) twenty-five years later saw this role changing as postgraduate medical education changes. The role was now more managerial reflecting the increasing input from others. Previously, his main task had been in the area of fund-raising.

Pickering (Ministry of Health, 1962) saw a clear role for the specialist unit in providing specialist postgraduate medical education at a regional level, providing the education which in London would be provided by the postgraduate institutes of the University of London.

The responsibility for providing postgraduate medical education and in particular the financial implications of this, were placed by Porritt (Medical Services Review Committee, 1962) on the health authorities as the employer.

Many of the organisations involved in postgraduate medical education have been involved for so long that their involvement is taken for granted. Not so the General Medical Council. Until the last decade, the General Medical Council had been concerned only with undergraduate medical education. It was only as a result of the Merrison report (Committee of Inquiry into the Regulation of the Medical Profession, 1975) and the subsequent medical acts that their involvement was extended into postgraduate medical education. There was therefore a certain amount of suspicion among the old hands to this usurper. Short (House of Commons, 1981) was quick to see the benefit of the General Medical Council's role in postgraduate medical education, creating a certain sense of continuity to the medical education continuum. The General Medical Council however has bowed to the superior specialist knowledge of other bodies in certain things, for

example accreditation is devolved to the Colleges.

The General Medical Council introduced a new variable to the equation with its recommendation for a designated trainer. This concept was borrowed from General Practice where each trainee is under the watchful eye of a trainer in a one-to-one relationship. In hospitals the situation is somewhat different however, with a trainee perhaps answering to not one but several chiefs. The role of the designated trainer is perhaps better thought of as a mentor to whom a trainee can turn for educational help and guidance. There is a danger however of a consultant accepting the status of such an appointment without also accepting the ensuing responsibility. (West of Scotland Committee for Postgraduate Medical Education, 1987)

With the many organisations involved in postgraduate medical education, there is always a need for an authoritative statement about who is responsible for what. This Todd (Royal Commission on Medical Education, 1968) attempted:
The Central Council for postgraduate medical education is responsible for supervising arrangements

The Universities are responsible for the implementation of the intern year; for providing teaching facilities and skills; for postgraduate students doing research and higher degrees

The professional bodies are responsible for systematic training in their own specialty; for inspecting of posts and for arranging formal examinations

The National Health Service is responsible for posts; for training and for money

Decision-making

Donnison and Chapman believed (Ribbins 1985) that it was the providers of services rather than controllers of resources or clients who usually initiated change. This may be because providers are at the "sharp end" and can see how changes could improve the service they provide.

Cuthbert (1984) claimed that each perspective on a problem is valid but that managerial action requires a choice. This choice is critical because a certain perspective determines how problems are solved and also which problems are recognised as such. Thus, going back to the phenomenological approach, each manager will view the organisation, the problem and the solutions differently.

Katz and Kahn (1978) specified the difference between administration and policy making. The distinction lies in the significance of the decision for the organisational structure and functioning and bears no relation to who makes the decision concerned.

For example, in the West of Scotland, decisions have been taken by various bodies. In the early days of the Committee there was a considerable amount of control from within the Committee. From 1945 until 1971 the Committee held the status of a sub-committee of the University Court and as such any major decisions particularly in regard to finance had to be referred to the Court for ratification. Since 1971 the Committee has been relatively autonomous, with an executive committee dealing with the day-to-day issues and the full committee sitting only infrequently.

Katz and Kahn(1978) made an important distinction between policy announcement and policy making. Merely to announce a policy does not necessarily effect the organisation. Decisions must be followed up by action.

Leadership

Blau and Scott (1963) defined the concept of leadership as the key function of management. According to their theory, leadership is required for making critical as opposed to routine decisions, that is decisions which define the ends (goals) of the organisation.

The role of the Postgraduate Dean as a natural leader of postgraduate medical education in a region was identified by

Bevan (1986). But he explained, it must not be forgotten that the Postgraduate Tutor is also a leader within his own district. Rhodes (1987) echoed this when he developed the concept of the School of Graduate Medicine in each region where the Dean would be the Head of the School and the Postgraduate Tutors would act as his assistants in the districts.

The role of the leader in any organisation is vital to its effectiveness. (Handy, 1985) However the role is a complex one involving ambiguities and conflict. The way in which a leader is appointed can lessen those conflicts.
For example, from 1947 until 1969 the Dean of Medicine at Glasgow University was also the Director of Postgraduate Medical Education and chairman of the Committee. The leadership therefore created close ties between undergraduate and postgraduate medicine. After a decision had been made to appoint a Postgraduate Dean, it was decided that the person appointed should be a clinician and should stay in touch with medicine, thus giving him an important perspective on the decisions he would have to make.

In the same way in 1955, a representative from the College was made vice-convener to the Committee thus creating a leadership which was at once University and College based. (Postgraduate Medical Education Committee, 1955)

Power and Accountability

Etzioni(1964) thought that decision makers who are fully and publicly accountable acquire both political and psychological stakes in their decision.They therefore try to justify these decisions at all costs, becoming deaf to any criticisms which may arise. There is a danger here that the decision makers will carry through a decision no matter what the consequences.

The problem of corporate planning in education was tackled by Salter and Tapper(1981). If education is planned centrally as part of a larger remit, then education becomes accountable to the central objectives of an authority rather than having separately evolved objectives. This means that the authority is always searching for ways to measure input and output. This in turn,imposes a severe limit on the kinds of educational policies which are feasible in the eyes of the planners.

Salter and Tapper(1981) also questioned the role of government appointed committees. On the face of it, these committees are independent of the Department concerned, have eminent membership and are sensitive to the climate of educational or medical opinion at the time. However, their terms of reference are laid down by the Department and their secretariat and research data are supplied by the Department which places a question mark over any pronouncements. In any case, the Department can choose to ignore any unacceptable

policy conclusions.

This phenomenon was illustrated by Short (House of Commons, 1981) who stated that it would be pointless to arrive at the ideal solution to any problem if the conclusions of the committee were then ignored.

Weaver(1975) questioned the term advisory. If a body is advisory whom does it advise, and by extension how much power does it then possess? This is of particular importance in postgraduate medical education where the regional and national bodies have been set up deliberately as advisory bodies. This was initially because in order to have vested them with legitimate power would have required legislation thus delaying their introduction. However, it must now be questioned whether without such power, their continued existence is worthwhile. This question was recently pondered by a government review exercise.

Policy changes

Salter and Tapper(1981) also produced a model for changing policy. In this, increasing pressure for change leads to the emergence of a validating ideology which in turn leads to new structures which embody the new ideology.

Several policies in postgraduate medical education have shown this sequence germinating from initial idea to action or

legislation. One example is the introduction of the pre-registration year. This was first proposed by Newman in 1918 (Newman, 1918) and again by Athlone (Postgraduate Medical Committee, 1921) three years later. However, it was only with the publication of the Goodenough report in 1944 that support for the idea resulted in its introduction in 1953.(Interdepartmental Committee on Medical Schools, 1944)

Another example is the establishment of a central body to overseeand coordinate postgraduate medical education. This was first suggested by Pickering (1962) and by Porritt (Medical Services Review Committee, 1962). The Scottish Postgraduate Medical Association in 1966 also recommended this but by the time Todd was published in 1968 (Royal Commission on Medical Education, 1968), a central committee had been running for a year and this was transformed in 1971 into the Central Council for Postgraduate Medical Education.

If these examples are typical then the issue of vocational registration should soon be resolved. A form of registration was first advocated by Todd (Royal Commission on Medical Education, 1968) and Godber (Working Party on the Responsibilities of the Consultant Grade, 1969) and in a different form by Merrison (Committee of Inquiry into the Regulation of the Medical Profession, 1975). The General Medical Council (1986) saw it as only a matter of time before specialist or vocational registration would become a reality.

The same story could be told of many other issues such as staffing and the increase in the consultant/junior ratio or of the common pluripotentiality of general training.

In a different example of policy changes, Shobokshi (1988) described the process of initiating a curriculum evaluation procedure in a South Arabian medical school. This involved an initial survey to identify the problems, a definition of the purpose of the evaluation, a statement of the principles of the evaluation and only then was the evaluation process designed. He stressed that with such a major change as this in the workings of the school, it was important to establish channels of communication and to ensure that the evaluation was officially recognised. Only in this way would recommendations from the evaluation become decisions.

CHAPTER SIX

FINANCE

Finance, or rather the lack of it, has proved a constant cause for concern in postgraduate medical education. The financial footing of postgraduate medical education has never been very solid and is unlikely to become so in the near future particularly with the proposals in the new white paper on the National Health Service. (Department of Health, 1989)

Sources of Funding

Finance created problems for the local Committee right from its inception. Its first syllabus for the year 1914-1915 could not be published until 1915 because the Committee at that time had no funds. It therefore had to charge for courses in order to create enough revenue to service the Committee and administer the courses. (Glasgow Postgraduate Medical Association, 1914)

After the war, the Committee agreed not to charge any fees to returning medical officers unless the government agreed to provide grants for this purpose. (Glasgow Postgraduate Medical Association, 1919). For other students, no fee would be charged for clinical attachments, but a flat rate of 5 guineas would be charged for courses no matter how many classes the student attended. However, it was agreed that

finance would not be the master. Should a course be undersubscribed it should still go ahead, even at a loss. From these fees, the Committee would retain a sum for expenses and the remainder would be paid to the teachers.

The grant from the Nuffield Provincial Hospitals Trust following the Christchurch conference, to the Committee was £25,000 which was used to appoint 21 postgraduate advisers. (University of Glasgow, 1962)

With the setting up of the Scottish Council for Postgraduate Medical Education, finance for the Committee was put on a more formal footing. The allocation from central funds for the Committee was allocated via the Regional Hospital Board. (Postgraduate Medical Board, 1970) However, there was still a lack of funds for many things, for example the administration of the pre-registration year.

Funding for postgraduate centres became an issue in the early seventies. Until then, the policy from the Scottish Home and Health Department had been not to have any centres in Scotland, in marked contrast with England and Wales. However, with the reorganisation in 1971 this policy was reversed. A certain amount of financial provision was to be made for postgraduate centres from postgraduate funds. (Postgraduate Medical Board, 1970) However, if a new hospital was being built then funding would be provided centrally for the provision of a postgraduate centre.

This problem of finding sources of funding is not unique to this country. In the United States problems are now occurring as a result of the moves towards shorter hospital stays and more ambulatory care. This in turn means that there are fewer in-patients for trainees to see and thus education too must look at the ambulatory setting. However a problem arises with the increased costs involved in using any clinical situation as a teaching situation and the resulting decrease in productivity. This is not helped by the fact that ambulatory care brings in a lower revenue than inpatient care. (Bentley, 1989; Eisenberg, 1989)

In the same vein, Colwill (1989) looked at the problems involved in financing residency programmes in general practice. He suggested that there should be financial incentives from the government to encourage general practitioners to offer residency programmes.

Cost Benefit Analysis

The problem of finance in education according to Thomas(1985) is that economists view education as a process with inputs (both human and physical), a process and outputs. A difficulty then arises in specifying and measuring the output. When measuring output, there is a tendency to talk in terms of earnings and higher productivity. (Atkinson, 1983) This is not particularly relevant to education of

any kind.

Costs may be direct or indirect. (Knight, 1983) In other words, some things are obviously a charge on postgraduate medical education, while others would appear on first reading to have little to do with it. For example, the cost of materials is a direct cost while the cost of the hospital building is an indirect cost.

Knight(1983) discussed the various costs involved in education. These are not merely financial but many can be expressed in financial terms. However, he questioned the wisdom of this currency, advocating the alternative currency of time which is more suitable for many educational situations. With the eagerness of economists to look for cost effectiveness and cost efficiency a measure is often needed for the intangibles of education such as morale and motivation.

This is borne out in postgraduate medical education where the costs are not always financial in nature. The costs of time are a large consideration to those undertaking and those providing education. (Interdepartmental Committee on Medical Schools, 1944; Royal Commission on Medical Education, 1968; Committee of Inquiry into the Regulation of the Medical Profession, 1975; House of Commons, 1981). Time spent on education may mean that other duties are neglected or that new staff have to be employed to perform these duties.

Physical resources are alsoa problem on occasion. (Pickering, 1962). The capital cost of providing these facilities is high but so also are the maintenance costs which will rise proportionately with the use being made of them. On the other hand, lack of use does not come cheap either. The costs of facilities lying idle must also be taken into consideration. (Knight, 1983)

The Employer's Responsibility

Organisations invest in education in the expectation of receiving benefits from that investment. In theory an organisation will invest in training which is specific to its needs because unlike general training the skills are not on the whole transferable and therefore the organisation can hope to reap the benefits. However in practice, other issues such as high unemployment or lack of housing will reduce the mobility of an organisation's workforce and it is therefore safe to invest in general training. (Drake, 1983)

In postgraduate medical education, the employing organisation who one would expect to invest in training is the National Health Service. But it is not quite as simple as that.

For example, the conflict over the position of the Postgraduate Dean, referred to in a later chapter, also caused problems over finance. This arose because the Dean's

post was a university appointment while his remit extended into health board areas. There was considerable discussion over who should take financial responsibility for postgraduate medical education. (Postgraduate Medical Board, 1970)

Financial responsibility for postgraduate medical education was eventually considered by the University Grants Committee. The University Grants Committee and the Health Departments finally issued a joint note of guidance concerning this matter. According to this note, fees for courses approved by the regional committee should be paid for by the NHS, while coures for GPs would continue to be paid under the Section 63 scheme. In addition, a proportion of the Postgraduate Dean's salary together with a similar proportion of the administrative costs of the regional committee would be reimbursed by the health board to the university. It was felt that this arrangement would lead to effective consultation between the two bodies.(Postgraduate Medical Board, 1973)

Bevan used the Section 63 funding for General Practiceas an example of the way in which he thought hospital postgraduate medical education should be financed. (Bevan, 1986) This suggestion implies that a central fund should be available for the education of hospital doctors. At present any education costs fall either to the local postgraduate centre or are dealt with through the study leave allocation.

The Responsibility of Other Bodies

Postgraduate medical education is an area where many bodies have some influence and some input of finance. These bodies include universities, health boards, colleges, drug companies and private sponsorship. The division of responsibilities for this finance is a difficult question.

Sometimes agreement can be reached amicably with an organisation acknowledging its responsibility. For example, Glasgow University Court agreed in 1947 to meet some of the expenditure incurred by the Royal College of Physicians and Surgeons of Glasgow in the provision of facilities for postgraduate medical education. In particular, for the improvement of the library and for the adaptation of two rooms to be used as classrooms, the Court made a grant of £1,000 together with an annual award of some £1,100 to meet postgraduate medical education expenses. (University of Glasgow, 1947)

At other times one organisation cannot or will not finance an initiative and some degree of partnership must be created. For example, the grandiose plans for postgraduate medical education put forward by Athlone in 1921 were to be financed, (at a cost of £14,000 per annum) he said, from a combination of state aid and private endowment. (Postgraduate Medical Committee, 1921)

Goodenough too saw a partnership between public funds and private benefactors in the funding of postgraduate medical education. He envisaged the need for large increases in expenditure.(Interdepartmental Committee on Medical Schools, 1944) In summing up the achievements of the Christchurch conference on its twenty fifth anniversary, Lister confirmed that postgraduate centres had been built through a partnership between hospital authorities, doctors and private enterprise. (Lister, 1986)

Looking to the future, Peaston mourned the passing of the fund-raising role of the postgraduate tutor. He felt that the emphasis today on new technology brought changes in financial responsibility for the tutors. In addition, the role of the drug companies needed clarification with a clear statement of policy on the degree of sponsorship which would be regarded as acceptable. (Peaston, 1986)

Accountability

Cost efficiency is a term which is often heard in these days of financial restraints. Atkinson(1983) created a distinction between technical efficiency where the relationship between the quantities of inputs and outputs is compared and economic efficiency where the emphasis is on the cost of the inputs.

McNay (1984) saw problems in placing too much emphasis on

process efficiency. This encourages authorities to try and maximise the use of resources rather than optimise their use. The resulting overload can only be detrimental to education. Such an emphasis on efficiency although disliked by the teachers is probably more popular than an evaluation of the actual teaching which would be more directly threatening to the teaching staff.

Accountability and audit are not new in postgraduate medical education. Newman (1918) was essentially a financial report. Newman was the medical assessor for grants in aid of medical education and his report in 1918 was intended to look at how these grants had been spent.

At a local level, it is encouraging to note that in 1959, the Committee stated that financial loss was no reason for terminating an otherwise satisfactory course. (Postgraduate Medical Education Committee, 1959) Thus, efficiency was not allowed to compromise education.

Human Capital Theory

Hughes (1985) reviewed the economics of education. In the human capital theory, education is seen to enhance productivity therefore educational expenditure is a form of investment both for the individual and for the society. Resource requirements should therefore be viewed in terms of the increased income return. This is illustrated by Athlone

(Postgraduate Medical Committee, 1921) who claimed that the expenditure on his schemes for postgraduate medical education would form a national investment.

The concept of the human capital formation was set out by Thomas (1985). Under this analysis, individuals acquire skills by systematic investment in education. This point was also made by Drake(1983). In order to invest in education, an individual must renounce the benefits of the other possible uses of his scarce resources in the hope of reaping greater benefits in due course. This opportunity cost, as it is called, may be financial or alternatively it might be for example a loss of leisure time. This need for investment will influence the take up of any educational opportunities.

Houle(1980) pointed out that the benefits to an individual of undertaking further education are not always clear. On occasions there may be grants available or a higher salary may reward those with higher qualifications but this is not always the case.

On the question of financial inducements for undertaking continuing medical education, Athlone (Postgraduate Medical Committee, 1921) suggested that this was not necessary as doctors would take part out of pride in their professionalism. Conversely, Todd (Royal Commission on Medical Education, 1968) warned that until a period of

postgraduate training was compulsory for all newly qualified doctors, then the prospect of quick financial gain (by going immediately into private practice) would undermine attempts at raising standards.

To the individual, adequate remuneration during the long period of training is essential (Royal Commission on Medical Education, 1968). And by the same token, doctors who undertake to teach their junior staff should be paid for this duty. (Medical Services Review Committee, 1962) In 1958 the local Committee discussed the fees payable to teachers on the postgraduate medical education courses. It was agreed that payment to full-time university teachers should be made to the relevant departmental funds, while payment to regional board employees should be made to the individual concerned as postgraduate teaching was not part of their contract. (Postgraduate medical Education Committee, 1958)

National Policy

Like every other part of the education sector, postgraduate medical education is influenced by national economic policy. Elaborate plans for training programmes will flounder at the first hurdle if the money is not available. This depends on the policy of national government at the time. For example, is the government committed to high public spending or is there a move towards more private funding of certain ventures? (Atkinson, 1983)

And policies which are not overtly educational will also have an influence on postgraduate medical education. For example, in order to try and create a more cost efficient system, Todd (Royal Commission on Medical Education, 1968) recommended that the expensive specialties should be restricted to one or two of the larger cities which would become centres of excellence for training in that specialty. Although making economic sense, this has important ramifications for training especially where an accrediting body calls for experience in several different units.

Atkinson(1983) asked how education should be financed. In the public sector there are many options including for example grants, loans or vouchers. In the area of postgraduate medical education, the same question could be asked. Should postgraduate medical education be paid for from the public purse or should the beneficiaries finance their education in some way? And taking that argument one stage further, who are the beneficiaries? Many would answer that the doctors benefit, but what about the patients, or the health service? Taking that argument to its logical conclusion should doctors, patients and the health service all pay for medical education?

CHAPTER SEVEN

CONFLICT IN POSTGRADUATE MEDICAL EDUCATION

> "Two systems are in conflict when they interact directly in such a way that the actions of one tend to prevent or compel some outcome against the resistance of the other"
> (Katz and Kahn, 1978, p. 613).

> "It has long been recognised that conflict is not inherently pathological or destructive. Its very pervasiveness suggests that is has many positive functions". (Deutsch, 1969 p. 381)

> "The resolution of conflict involves give and take on all sides and this is often interpreted as defeat and weakness" (Gray, 1980)

Conflict has many guises, arising from differing situations.

Some of that conflict may be resolved and some may not. In postgraduate medical education, conflict has arisen in four main areas : over resources, over professional values, over organisational interests and over roles.

Katz and Kahn (1978) made an important distinction between conflict, competition and conflict of interest. Conflict is incompatible interaction, whereas competition is incompatible activities and conflict of interests is only incompatible needs.

From these definitions it might be argued that in many of the cases cited below what is occurring is not conflict but in fact competition. No open "conflict" occurred in many cases, but there is a definite conflict of interests in every case which if left, could lead to conflict. This chapter will examine how that conflict of interests was managed, if at all. The term conflict will be used throughout to denote both competition and conflict.

Conflict Over Resources

The conflict which is most often cited as the major problem in postgraduate medical education is the so-called service versus training conflict. This occurs because doctors in training are also "pairs of hands" needed to staff the service. It therefore becomes a matter of priorities as to how long a trainee and his trainer spend on educational activities. In theory, it might be possible to dedicate a certain number of

hours per week, but in practice the needs of a sick patient will always come first. This is evidenced at every hospital seminar or meeting when the speaker makes his presentation to an accompaniment of bleeps from radio-pagers calling doctors back to the ward.

Ribbins (1985) in his critique of organisational theories mapped the Marxist origins of conflict ideologies. He explained that every member of an organisation is working towards certain goals, however with an inevitable limit on available resources, conflicts are inevitable between members requiring the use of the same resources. This in turn leads to the formation of alliances.

In the service/training conflict, the resources which are in conflict are the doctors themselves and the time which they have to bestow on their multifarious tasks. The alliance, according to Ribbins' paradigm, is the postgraduate medical education organisation at local, regional and national levels.

There are examples of the service versus training conflict both at local and at national level. At local level, the Committee has had to address the service/training conflict on several occasions. For example a scheme to enable all general practitioners to take study leave regularly every five years was proposed by the Department of Health for Scotland in 1937. The Committee put its support behind the scheme, but due to a claim from general practitioners for an increase in their capitation

fee, the scheme was postponed due to lack of Department of Health funds.(Glasgow Postgraduate Medical Association, 1937)

In a more typical example, the overwork of residents was raised several times by the Committee, resulting in a review of pre-registration posts and an agreement that all recognised pre-registration posts should be primarily for the training of the post-holders and only secondarily for staffing the hospitals. This issue was important enough to warrant the arranging of a special meeting to discuss the problems which were apparent. (Postgraduate Medical Education Committee, 1960)

At a national level, the question of time for education was echoed in many of the reports. Goodenough (Interdepartmental Committee on Medical Schools, 1944) emphasised the need for the trainee to have adequate time for reading, reflection and research, but gave no indication about how this might be accomplished. Porritt (Medical Services Review Committee, 1962) also looked at the need for time to teach and the importance of remunerating doctors for this duty.

The service versus education conflict appeared to occur at every level of postgraduate medical education, with no grade being more, or less at risk than any other. The problems in the preregistration year were identified by Merrison (Committee of Enquiry into the Regulation of the Medical Profession, 1975) particularly the lack of time for study when too often the resident is an extra pair of hands. Todd (Royal Commission on

Medical Education, 1968) identified the registrar grade as the major problem area where training is haphazard and where most posts meet service not training needs. In the same vein, Todd looked at rotation schemes and again argued against the over-burdening of Senior Registrars with routine work, but by the same token, he warned against moving too far in the opposite direction where trainees become observers only. Continuing medical education was also scrutinised by Todd, where he again made a case for giving all doctors both the time and the opportunity for education.

The above examples illustrate the problem. The allocation of time is finite for each doctor and the allocation of doctors is finite. With a limit to these resources, there is a need for an explicit statement of priorities.

Perrow (1969) talked of the official goals of an organisation and the need for a formal statement of priorities among them. He also illustrated another nuance of the service/training conflict. If by using young doctors as pairs of hands the organisation is working against the stated goal of medical education, at the same time it is working towards the stated goal of good patient care.

The education versus service dilemma can also be looked at from the point of view that each is dependent on the other for survival (Bevan, 1986) and in this dependency, the Postgraduate Dean becomes the lynchpin. The concept of a linking pin, who

is not a representative of either group of which he is a member is an important one (Likert and Likert, 1976). This means that he can look at any problem from all angles, without having the restriction of having to fight for the interests of his parent group.

Merrison (Committee of Inquiry into the Regulation of the Medical Profession, 1975) argued for the acceptance of the inevitability of the service education conflict, but he was a lone voice. Other writers complained but offered little in the way of solutions.

One of the major variables in the service versus training conflict is the staffing establishment. The attempt to balance this by Hayhoe(Ministry of Health, 1986) was welcomed by Parkhouse (1986). Achieving a balance was a long-term staffing exercise which, if implemented in full, should see an expansion in the number of consultants and a corresponding reduction in the number of junior staff. This should ultimately lead to a service staffed and run primarily by consultants with junior staff in their intended learning role. This has been the ideal of a number of reports (House of Commons, 1981; Ministry of Health, 1986; Shaw, 1987).

One or two writers have suggested possible solutions to this problem. In his argument for general professional training, Todd (Royal Commission on Medical Education, 1968) put a clear emphasis on time for educational activities and for thought. He

suggested the need for both more staff and more resources to ensure that both training and service considerations were satisfied. This is related to the regulations and money available for study leave.

In designating the role of the clinical tutor the Christchurch conference (Pickering, 1962) recognised that in order to take on the tasks required of him, he must be relieved of some of his routine clinical tasks, but again,the conference made no suggestions regarding the financial and service implications of this statement. However, Christchurch did acknowledge that staffing must be generous enough to allow both senior and junior staff time to participate in the educational activities which are being planned for them.

According to Merrison (Committee of Inquiry into the Regulation of the Medical Profession, 1975) the solution was to make the service provision bigger than the service load to allow for educational activities. However, as the service demand would always increase to meet the available resources, there was a need for a protection mechanism. He applauded the constitution of the Scottish Council for Postgraduate Medical Education where two members were co-opted from the Scottish Home and Health Department thus encouraging a dialogue on resources for education.

Bayley (1986) argued that time for education must be allowed over and above the service commitment and this implied a change

in staff contracts.

As can be seen, many of the proposed solutions to the service/training conflict boil down to funding. But from the discussion it becomes apparent that more funding is not a final solution. As Merrison (Committee of Inquiry into the Regulation of the Medical Profession, 1975) pointed out, the service will always grow to meet the available resources. A new solution is required to this dilemma and this solution must include a statement of priorities laid down and agreed by all interested parties to the conflict. Perhaps the time has come for a new imaginative solution (Likert and Likert, 1976)

Conflict Over Professional Values

The question of professionalism and specialisation is another area of concern in postgraduate medical education. What was in the past one single profession of medicine, has now splintered into fifty or more medical and surgical specialties each fighting for its own corner. In the local Committee over the years a conflict has arisen as each specialty tried to ensure "adequate" representation and on each occasion the number of factions has grown reflecting the growth in the number of specialties. (Glasgow Postgraduate Medical Association, 1921, 1933, 1944; Postgraduate Medical Education Committee, 1947, 1955; West of Scotland Committee for Postgraduate Medical Education, 1983) This might be called professional conflict.

But professional conflict did not only arise within the medical profession, there was also conflict with other health professions. Lister(1986) and Peaston (1986) encountered a fairly new area of conflict arising from the move towards multi-disciplinary centres where the disparate needs of different professional groups were sometimes at odds. For example if nurse education requires a lecture theatre for one hour every Wednesday then another group cannot hold a full day meeting in the same room.

At an individual level, there is the problem of professional versus bureaucratic orientation. An individual as a professional has a loyalty to his profession and as an employee has a loyalty to his organisation. Where these loyalties do not coincide, conflict can occur (Blau and Scott, 1963). At the same time there is a conflict which can occur between staff and line. For example, the performance of an audit in order to save money will create tension between line and staff in an organisation.

There is a great deal of literature regarding the problem of professional autonomy and the conflict this creates within the power hierarchy. A professional act is an autonomous act which threatens the power hierarchy of the organisation, but in an organisation where more than fifty percent of the staff are professionals, professional staff will have superior authority to administrative staff (Etzioni, 1964). This is certainly true in hospitals where doctors reign supreme, but it also suggests

another question. What of the role of the medical educator?

Medical teachers need to be taught how to teach, but the medical profession seems to have an inbuilt distrust of educationalists (Parry, 1986). In this context, hospital medicine has to learn from the general practitioners who have leapt ahead in the educational stakes by bringing in educational specialists and constructing major educational programmes. Extended professionality with its emphasis on the broader context of the profession, may suggest some answers. (Hoyle, 1975) For example, doctors who broaden their professional role to encompass non-medical professional tasks such as management or education should adopt the same "professional" attitude to these other tasks as they do to their clinical tasks.

Bennis (1969) discussed the problem of divided loyalty where an individual's professional values are at odds with his organisational demands. This might be a problem in the regional and national postgraduate organisations where each representative of a specialty may feel obliged to fight for his specialty , sometimes at the expense of the greater good of postgraduate medical education.

On the other hand, Blau and Scott (1963) saw interlocking membership as an important variable in the reduction of conflict. If an individual is a member of several organisations then this will produce cross pressures in the individual which will ultimately reduce conflict. This

phenomenon is attributed to the fact that the individual will lose interest in the conflict or will make attempts at arbitration between the opposing pressures. If this were the case then the local postgraduate Committee which is made up entirely from members of other organisations should not have problems with conflict.

Conflicts Between Organisations

During the last seventy years in the West of Scotland, in addition to the conflicts which were occurring within the postgraduate medical organisation, conflicts were also occurring with other organisations. These organisations were many and varied and each felt that they had a particular role to play in postgraduate medical education. For example, the Committee had a difference of opinion with the local branch of the British Medical Association in 1936. The initial approach was made from the BMA to the Committee with a view to increasing the interest of members in courses organised by the Committee. However, the BMA questioned certain aspects of the administration of these courses, notably the time and day of meetings. They also wished to include one or two of their own official BMA lectures into the Committee programme. The response of the Committee to this was emphatic. It would not change the day or time of its meeting and it would not include BMA lectures in its programme. As a concession, they allowed a BMA leaflet to be distributed with the Committee programme. (Glasgow

Postgraduate Medical Association, 1936) In this example the Committee were clearly not willing to devolve any part of their responsibility for organising educational programmes.

In a different example the Committee was unwilling to undertake a role which they felt did not belong to them. In January 1949 a letter was received by Professor Rodger from Sir David Henderson regarding the Diploma in Psychological Medicine courses. Owing to the small number of candidates for this diploma, Sir David suggested that the Scottish Universities should run these courses in rotation, and that there should be a joint psychological medicine course run by Glasgow and Edinburgh universities. As it was the policy of the University to leave diplomas to the Royal Corporations, the Committee felt that the best solution was for Edinburgh to stop awarding the Diploma in Psychological Medicine and for a joint diploma of the Edinburgh colleges and the Glasgow College to be instigated. Glasgow University would only take part if this arrangement proved impossible. (Postgraduate Medical Education Committee, 1949)

The story continued in June of that year with the news that the Royal Colleges in England were about to institute a Diploma in Pathology. The Committee felt that this demanded action in Scotland and proposed a conjoint diploma similar to that proposed for psychological medicine. Should these proposals be accepted by all the corporations concerned, then a conjoint board might be set up. Although the Scottish pathologists were

not enthusiastic about a diploma, they intimated their willingness to participate in order to "defend the prominent place of Scotland which was now under attack by the English colleges".

In a third example a conflict of interests was envisaged between the Committee and the Colleges over the proposal that the Committee should take over approval of posts for general professional training. (Western Regional Committee for Postgraduate Medical Education, 1972). Until then, the approval of posts had been the preserve of the Colleges which set the standards for training in each specialty. For the Committee to take over this task required the Colleges to relinquish a substantial proportion of their power.

The above examples illustrate some of the problems that can arise when conflicts occur between organisations. Power is a major issue in this form of conflict. Hoyle (1975) suggested that social life is based on conflicting interests and that these are only resolved with the use of coercion by those with power. Deutsch too (1969) talked about power, and particularly the power of third parties to a conflict.

The Postgraduate Dean acting as a third party was important, together with his regional committee in resolving the conflict arising between the many committees and groups overseeing postgraduate medical education.

At a national level the Council for Postgraduate Medical Education was set up with the aim of providing a mechanism for cooperation between these diverse groups but it has failed to do so (Williams, 1986). The answer may lie in the power structure of medicine and the tension between particularly the Colleges and the General Medical Council. Williams therefore suggested that it was important to resolve the conflict within the Council for Postgraduate Medical Education before tackling the conflicts outside.

Conflict Over Roles

Particularly in a multi-purpose organisation, conflicting role expectations of an organisation by its organisation set (Blau and Scott, 1963; Kahn, 1964) can also lead to conflict. An organisation may feel that one client expects it to save money while another expects it to teach and yet a third expects good patient care. Various strategies can be employed by the organisation to lessen this role conflict. It can bow to the client with the greatest power at the expense of the others. It can insulate itself against observation thus appearing to serve all its clients at different times. Alternatively it can inform its clients of the conflicting pressures and it can form associations with like-minded organisations to give it more power.

Gray (1980) in his discussion of the exchange-conflict model

questioned the motives of such organisations. Whom do they serve? Conflict is a result of the differing demands that members make on an institution. In a school, which many might say is there to serve the pupils, the power-base lies not with the consumer but with the providers, that is the teachers and the educational authorities who set all the rules. The same could be said of postgraduate medical education training schemes. The health boards control selection, workload, experience, rewards and study leave. Certainly it will be argued that the hospital is there to serve its patients but equally it is there to educate its young doctors.

In the exchange-conflict model, every member joins the organisation to gain something and to provide something. Doctors provide service and gain salary, job satisfaction and education. The hospital in return gains medical expertise. The success of an organisation lies in its ability to satisfy members needs, and therefore conflict may only be successfully resolved through renegotiation of the contract.

For example, in the local Committee, after discussion over yet another Diploma course which demanded basic sciences, it was pointed out that for many postgraduate diplomas, university teachers did the work, but the Colleges obtained the prestige. A call was made for clarifying the status of postgraduate instruction. Heads of non-clinical departments with heavy undergraduate teaching commitments were lukewarm about undertaking postgraduate instruction of men not of direct

interest to their department and not taking a university examination. In these cases the responsibility of the non-clinical departments was unclear. (Postgraduate Medical Education Committee, 1957)

This problem was echoed again in March 1957 with a letter from the Professor of Pathology complaining about the increased workload placed upon his department by all the postgraduate courses. (Postgraduate Medical Education Committee, 1957) Again in December 1960, the teaching staff made known their unwillingness to undertake a second annual course for the primary examination due to lack of staff. (Postgraduate Medical Education Committee, 1960)

Perhaps the best example of conflict over roles at a local level occurred when discussions were taking place regarding the new regional committee and the appointment of a full-time Postgraduate Dean. Here conflict occurred over the title and status of this post. The College objected to the university connotations of the title "Dean".(Postgraduate Medical Board, 1969) The College didn't want him to be too University orientated remembering his role as executive officer of the Committee. However, the University people saw a need to afford him equal status with the Undergraduate Dean. Opposition came from both the College and the Health Boards regarding the financial responsibility for postgraduate medical education and in particular the fact that the Postgraduate Dean was to be a University appointment.

Etzioni (1964) recognised the need for priorities in a multi-purpose organisation. Without a clear definition of the relative importance of an organisation's various goals, conflict becomes ever more likely because the members of that organisation must create their own priorities. In addition, there can be a discrepancy which arises between stated goals and real goals. For example, the stated goal of a training programme is to train a clinically competent doctor, while to the trainee, the real goal may be to pass the examination.

The role of postgraduate medical education is a difficult one. The postgraduate medical education organisation is a fairly new phenomenon in medicine and therefore people are unsure of what to expect from it. This results in ambiguity and ultimately in conflict. A solution lies in specifying aims, which has now been done in the West of Scotland. (Western Regional Committee for Postgraduate Medical Education, 1974)

Strategies For Reducing Conflict

Katz and Kahn (1978) looked at conflict-reducing behaviour. Three actions were identified. Firstly, unconditional submission, secondly conditional promises and threats, and finally conditional cooperation. Of the three Katz and Kahn identified conditional cooperation as the action which is seen as the most effective for reducing conflict. In other words,

the parties in conflict must work together to resolve their differences by cooperation and discussion.

Katz (1964) enumerated the three conflict resolving strategies which are commonly undertaken once a conflict has been identified. Firstly, an organisation will try to work through the conflict, maintaining the status quo. Secondly, additional conflict-solving machinery may be put in place such as additional staff or regulations. Only if these two strategies fail do organisations actually look at changing to address the underlying causes of the conflict. Katz also stressed that conflict is not always bad and may at times be the catalyst of creativity and innovation.

When the proposals for the new regional Committee were under consideration in 1969, Professor Fleming urged the principal to consult with the College on this matter and not issue them with a fait accompli. This is a good example of an attempt at communication in an effort to avoid conflict.

Deutsch (1973) and Likert and Likert (1976) emphasised the importance of common goals and cooperation in the resolution of conflict. If a conflict is depersonalised by scaling up to look at general policies before tackling specific issues, it makes it easier for the two or more opposing sides to come to some agreement.

SECTION THREE

EDUCATIONAL ISSUES

CHAPTER EIGHT

THE CURRICULUM IN POSTGRADUATE MEDICAL EDUCATION

Definition

There are many different definitions of a curriculum. Each has its merits, but for clarity in this thesis I have selected the definition from Barrow (1984) which states simply that a curriculum is a prescribed course of study or training. In other words, I am concerned here primarily with the prescription of content. Teaching methods, which are considered by some writers to be included in the planning of a curriculum, I will deal with separately when I come to discuss the education of teachers.

When discussing education in any form, the central concept must be the curriculum (Weaver, 1975) All the other tasks which are necessary for educational efficiency, for example staffing, maintenance etc. are important only as far as they serve the actual curriculum. The curriculum is the very foundation of any educational system. (Kelly, 1982)

Planning a curriculum

There are many books and articles giving various interpretations of the way in which the definitive curriculum should be planned. Some advocate the process model, others

stress the need for objectives. What all these writers have in common is an emphasis on the need for planning the curriculum. A plan implies some forethought about the curriculum and about what it is intended to produce or convey. In other words, a curriculum is not merely a collection of educational episodes which just happen, they are linked together by a common thread and have a specific goal in the master plan.

Some reports suggested that there is a lack of planning in postgraduate medical education and by implication that a curriculum did not exist. For example, Todd (Royal Commission on Medical Education, 1968) abhorred the haphazard nature of post-registration training and Merrison (Committee of Inquiry into the Regulation of the Medical Profession, 1975) called for a sound organisation of training so that young doctors could benefit from their clinical education.

However, there are also examples of when planning did in fact take place. For example in the West of Scotland, the Royal College of Physicians and Surgeons of Glasgow ran a series of weekly lectures on various topics by invited speakers. It proposed in 1955 to rationalise these lectures into a three year integrated syllabus of lectures and demonstrations. (Postgraduate Medical Education Committee, 1955)

The notion of curriculum development is a well known one but

this implies that the curriculum is continually reappraised and improved. (Kelly, 1982) It is not enough merely to plan a curriculum and assume that thereafter its tenets will be written in stone, never to be changed. Curricula must change with the changes in medicine and in society in addition to changes required to improve what is already being taught. This issue will be raised again in the chapter on evaluation.

According to Rowntree (1982), the actual consideration of subject matter is no substitute for the consideration of the objectives of a course. He stated that the job of the teacher was to "arrange for learning to take place" which implies a form of management task. This task must take into consideration the nature of the knowledge to be "taught" and the needs of the students.

These considerations were echoed by Lawton (1973) who felt that objectives should be planned in the light of the nature of knowledge, the nature of the learner and the pressures and needs of society. He saw a possible conflict arising between these sometimes competing considerations. He therefore recommended the establishment of a framework of values.

Lately there has been some research carried out into the needs of the learner and into his learning styles in postgraduate medical education. (Baker, 1988; Mohapatra,

1988) This is particularly important where, taking Mohapatra's work as an example, a curriculum is designed with the needs of urban society in mind. This curriculum may not prepare doctors for work in the poorer rural areas where modern medical advances cannot cope with the problems of poor nutrition.

Hirst too (1974) claimed that there could be no curriculum without objectives. He warned that deciding the objectives of a course of study involved value judgements, but that all too often the established syllabus set the objectives. However, he agreed that specification of objectives did not imply that the selection would be the same for every situation. Objectives must be specified in the light of the particular context.

Hirst further argued that in curriculum planning the first task was to formulate the objectives clearly before moving on to questions of content or methods.

There is evidence that at times postgraduate medical education has formulated its objectives. For example the Scottish Council for Postgraduate Medical Education published a report on continuing medical education for general practitioners. In it the objectives of continuing medical education were stipulated as: to keep general practitioners up-to-date, to present them with the growing knowledge and to stimulate research. It was therefore important to identify

their needs, to make courses relevant and to provide varied programmes. (Western Regional Committee for Postgraduate Medical Education, 1973)

At a national level, the General Medical Council have published their aims for the pre-registration year. These aims were: to round off basic medical education and to provide general clinical experience under supervision with the opportunity to apply and extend professional knowledge and skills. (General Medical Council, 1986)

But not all writers were in favour of objectives. Stenhouse (1975) although admitting their value if used intelligently, warned of the dangers of using objectives too extensively. For example trivial objectives are the easiest to quantify and they prevent opportunism. He argued that education should enhance freedom and in a fully democratic educational situation behavioural outcomes of students are unpredictable. He therefore recommended the process model where content is selected without reference to objectives and where the process of learning is more important than the end point.

On the other hand, Davies (1976) justified the objectives approach because objectives clarified the intention of a learning situation and thus the question of relevancy and worthwhileness could be addressed.

Harden (1986b) felt that there was no one ideal approach to

curriculum planning and that all had both advantages and disadvantages. He therefore proposed a list of ten questions which once answered would provide a framework on which to build a medical curriculum. These questions related to needs, aims, content, structure, methods, assessment and educational climate.

Much of the literature on postgraduate medical education describes "innovative" programmes of study in hospitals and medical schools. Jayawickramarajah (1987) sounded a word of warning about these innovations which offered to remedy all the problems inherent in medical education. As he pointed out, the implementation of an innovative programme is regularly carried out by medical teachers who have little or no educational training. If, as is almost always the case, the educational tasks (e.g. selecting resources, carrying out assessment etc.) require an understanding of the curriculum theory, then what actually happens in the classroom or on the ward may bear little relation to what was designed on paper.

Many people talk of a balanced curriculum and thisimplies totality in planning, as opposed to the piecemeal approach which is often undertaken. But the notion of balance could also be misinterpreted. What Kelly implied (1982) was a judicial balance not a mathematical one. But such a balance is relative and based on value judgements.

The question of a balanced curriculum is an issue both in

secondary education and in postgraduate medical education. Creating a balanced curriculum was the remit of the Munn Committee in looking at the curriculum for the third and fourth years of secondary school. This committee questioned the meaning and importance of the concept of balance. (Consultative Committee on the Curriculum, 1977)

Likewise, a "balanced" curriculum was proposed by Todd who felt that postgraduate medical education should not be concerned purely with medical courses. He suggested management; operational research and pharmacology as examples of a wider curriculum. (Royal Commission on Medical Education, 1968)

More recently, a document on the training of physicians identified the need for balance between a broad-based medical knowledge and a high level of specialist expertise. It therefore recommended that general professional training should be flexible and should not commit a trainee to one particular branch of medicine. (Standing Committee of Members of the Royal College of Physicians, 1986)

In the same way, the General Medical Council emphasised the need for breadth and diversity with general experience in medicine and surgery for the period of general clinical training. Rather than specify content, the General Medical Council gave examples of broad skills which the trainee should gain during his training. These included

communication; emergencies; record keeping; health promotion; teamwork and the evaluation of quality of care. (General Medical Council, 1986)

At a local level, an expansion of the curriculum for general practitioners was proposed by the Committee in 1932, with the suggestion that university classes open to medical graduates be added to the summer syllabus even though these did not come directly under the auspices of the Committee. (Glasgow Postgraduate Medical Association, 1932) These classes, which were optional gave graduates the opportunity to broaden their education.

Scope is another buzz word in curriculum theory. Taba (1971) pointed out that scope implies not only breadth but also depth. He warned that the wider the coverage, the less time there is to develop depth of understanding. This is a very important point.

In the same vein, Taylor (1971) argued that the curriculum is the bringing together of knowledge, methods and objectives and therefore a complaint that a curriculum is too narrow or unbalanced needs to be clarified. In other words, in what dimension is the curriculum unbalanced?

For example, a Dr Eaton approached the local Committee about running a class in biochemistry. However the Committee felt that the class he was suggesting was not sufficiently

comprehensive to have postgraduate status. He was advised that he could run the course privately with the possibility of its later inclusion in a more comprehensive course. (Postgraduate Medical Education Committee, 1949) No indication is given of what would have constituted a more comprehensive course.

Kelly (1982) warned of the difference between intention and reality in any planned curriculum. By this he meant not just the hidden curriculum, as it has come to be known but also the problems associated with students learning something other than that which was originally planned.

The Core Curriculum

Much talk has been heard in the field of secondary education about the need for a core curriculum. Mr Baker, before his departure from the Department of Education and Science stressed the need for every school child to study certain subjects.

This debate is also raging in postgraduate medical education. Many have argued for the pluripotentiality of training and for the need for skills which are transferable. (Green College, 1986)

Kelly (1982) suggested that the increasing external control of the curriculum at secondary level had led to a growing

concern with the curriculum as a totality. This is also the case in postgraduate medical education where the activities of the General Medical Council in recent years have resulted in calls for a core curriculum. (General Medical Council, 1986) However, Kelly argued that educational equality does not necessarily mean providing exactly the same educational experiences for every student.

One of the problems of a core curriculum is who decides on what that core should be. At the Conference of UK Postgraduate Medical Deans, Bayley (1987) proposed that postgraduate medical education needed a National Curriculum Council similar to that being proposed at the time for secondary education.

But the notion of a core curriculum is not a new idea. The local Committee became aware of the overlap which was occurring in the provision of courses for the primary examinations of the various specialties (e.g. anaesthesia, ophthalmology, surgery etc.) thirty years ago. It therefore began to look at the possibility of providing a general basic sciences course which would cover all these specialties. (Postgraduate Medical Education Committee, 1956)

And in a similar vein, the Committee received a report from the working party on general professional training in 1972 which recommended a broad-based three year basic training providing wide experience before specialisation. (Western

Regional Committee for Postgraduate Medical Education, 1972)

As long ago as 1944, Goodenough was proposing a sound experience of general medicine and surgery before specialisation. (Interdepartmental Committee on Medical Schools, 1944) Similarly, in recommending general professional training, Todd explained that it would emphasise the common features of training so that if a trainee's plans changed most of his training would still be relevant. (Royal Commission on Medical Education, 1968)

More recently the General Medical Council stressed the common attributes of all independent practitioners which should form the basis for a core curriculum for all doctors before specialisation. These included consultation skills, ethics, emergency procedures and teaching. (General Medical Council, 1986)

The Vocational or Academic Curriculum

After a young doctor graduates from university and moves into his junior house jobs, he hopes to leave book study alone for a year or two while he concentrates on the clinical skills - the real medicine. But unfortunately his study has only just begun. The debate over what to include in the increasingly pressurised undergraduate curriculum must ultimately spill over into the postgraduate sphere for what is necessarily left out at one stage must be incorporated at

another. This echoes the education versus training debate discussed in a previous chapter.

Even in the secondary sector a debate has raged on the relative merits of a liberal versus a vocational education and the debate is echoed in the field of postgraduate medical education. For example, King (1988) argued that the absence of a broad liberal education creates a lack of a "profound conception of the whole of civilisation" in an otherwise educated person. This in turn led to a decrease in the amount of shared knowledge which could be taken for granted.

Raffe (1985) suggested that in secondary school pupils choose the subjects they wish to study on the basis not of content but on the basis of "status" in the job-hunt. This status variable therefore puts an emphasis on so-called academic subjects at the expense of vocational ones. It could be argued that the same is true of postgraduate medical education where doctors will attend courses on certain topics because that gives them another step on the ladder to success.

The fine dividing line between what should be incorporated in the undergraduate curriculum and what should be left until a doctor's postgraduate training is a contentious issue. For example, Goodenough (Interdepartmental Committee on Medical Schools, 1944) thought that the technical skill of the operating theatre was a matter for postgraduate study.

Todd (Royal Commission on Medical Education, 1968) too dealt with this point. He felt that the aim of the undergraduate course was to produce not a finished doctor but a broadly educated man who could become a doctor by further training. In recommending a period of general professional training, Todd envisaged the ethos of this period of training as being strictly vocational not academic.

However, according to Ellis (1988), undergraduate medical education was still too "facts" orientated despite the recommendations of the Todd report. Postgraduate medical education therefore needed to include the "education" lacking at the undergraduate stage. By "education" Ellis meant thinking and attitudes. He argued that most so-called postgraduate medical "education" was in reality postgraduate medical "training".

Calman and Downie (1988) discussed the need for some differentiation in the use of the terms education and training. There is a tendency in the medical education literature to use the terms somewhat interchangeably which can cause confusion. But if one is to follow the writings of the philosophers then "education" implies something worthwhile involving cognitive thought while "training" merely implies mastery of a skill. This discussion could be said to parallel that of academic versus vocational education.

The Selection of Curriculum Content

For many people the word curriculum is synonymous with syllabus and content. This may or may not be the case, but nevertheless the selection of content is a major educational decision for any teacher. But who should select the content? And what criteria should this person or body utilise in its selection?

The selection of the content for postgraduate medical education leading to higher examinations and accreditation rests with the Royal Colleges and the Joint Higher Training Committees who are accorded this power by the General Medical Council in the same way as the universities select the content for the undergraduate curriculum. (General Medical Council, 1986)

Kelly (1982) identified many pressures on the curriculum designers which might influence the final version of the curriculum. These pressures might include tradition, economics, technological change and academic influences. All these pressures are evident in postgraduate medical education. In particular the pressures exerted by the examinations may be said to have created a curriculum of their own. Kelly suggested that by the very nature of the interrelationship between the curriculum and the examination structure, there should be joint planning.

The strained relationship between examinations and curriculum in postgraduate medical education was illustrated locally in the reluctance among undergraduate lecturers to take on the extra work involved in providing preparation courses for the FRCS. This reluctance led to the Committee undertaking an analysis of their proposed 10 week syllabus. This revealed that they would require 91 teachers and would take up 250 teaching hours of which 70 would be biochemistry, 75 would be anatomy and 90 would be pathology. As a result of this analysis, it was questioned whether the students really wanted a "cram" class or whether clinical experience was of more importance. (Postgraduate Medical Education Committee, 1948)

The pressure of examinations did not just come from surgery and medicine. In the case of radiology and radiotherapy, two Glasgow hospitals were already recognised training centres for the Diploma in Medical Radiology and it was the radiologists themselves who approached the Committee suggesting that they takeover the responsibility. (Postgraduate Medical Education Committee, 1949)

The centralisation of the control of the curriculum raised several problems for Kelly (1982). The very fact of centralisation does not remove the problem of who should decide and how that choice should be made. To take the question a stage further, how far should the centralised

decision-making go? Should it be a list of centrally approved subjects, or a central syllabus or more? A centralised curriculum could be open to accusations of irrelevancy or indoctrination. And it also questions the autonomy of the individual teacher. It is important to distinguish between central control and the central monitoring of standards.

The early reports on postgraduate medical education stipulated the curriculum of postgraduate medical education in some considerable detail in what could be considered to be central control. For example Newman (1918) specified instruction in diseases of women and children; neurology; skin diseases; orthopaedics; psychiatry; ear, nose and throat and other specialties "crowded out of the ordinary curriculum".

In the same way, the curriculum for general practitioner refresher courses came in for special consideration by a number of reports. For example Newman (1918) thought that General Practitioners needed revision courses on diagnosis and treatment; special tuition on tuberculosis and venereal disease; detection and management of mental cases; differentiated diagnosis in surgery; disorders of the digestion; ophthalmology and war neuroses.

In any discussion about the curriculum, at some time someone will argue for the retention of a traditional subject on the grounds of its inherent worth. Benjamin (1971) related the

story of the saber-tooth curriculum as a somewhat exaggerated example of how dangerous that argument could become.

Pressures on the curriculum come from other quarters as well. In schools the non-educational goals of the school exert pressure (Taylor, 1971) and the same could be said of hospitals where the pressures of patient care undoubtedly exert a pressure on the medical curriculum.

The selection of content was also tackled by Barrow (1984). Very often in the selection of content, people justify their selection on the basis of its use, relevance and reality. But as Barrow pointed out, who should decide and against what criteria should these decisions be made?

Pressure to emulate other centres was a powerful catalyst in local curriculum design. For example, in 1936 the secretary drew the attention of the Committee to an advertisement in the British Medical Journal for postgraduate courses in surgery and surgical pathology in preparation for the FRCS. (Glasgow Postgraduate Medical Association, 1936)

The same pressure arose in 1948 when the Committee discussed the syllabus for the Edinburgh FRCS course and although unwilling at that time to undertake such a course, they felt pressurised into doing so, so as not to be left behind. (Postgraduate Medical Education Committee, 1948)

On other occasions the spur to include certain courses in their programme came from the students. For example, in 1937 the junior surgeons approached the Committee asking for courses aimed at candidates for higher degrees. After due consideration, the Committee agreed in principle on the understanding that courses in medicine and in obstetrics & gynaecology be included as well as surgery. (Glasgow Postgraduate Medical Association, 1937)

Sometimes teachers initiated courses themselves. In 1930 the Committee received an offer from a Mr Parker Smith, Professor of Electric Engineering at the Technical College to run a course in medical electric physics. (Glasgow Postgraduate Medical Association, 1930)

The needs of society also played a large part in defining the curriculum of postgraduate medical education. By 1946, the first demands of the returning medical officers had been met and the Committee turned its attention to more specialised courses. The first topics to be considered were obstetrics, paediatrics and ophthalmology, these being the subjects which medical officers were least likely to have experience of in wartime. (Postgraduate Medical Education Committee, 1946) These were followed by industrial medicine and chronic diseases of old age.

Developments in medicine also influenced the curriculum. The emergence of the "new" diseases was reflected in the

courses being organised by the Committee. For example in 1948, the Committee agreed to accept responsibility for lectures organised by the British Empire Cancer Campaign on the early diagnosis of cancer. (Postgraduate Medical Education Committee, 1948)

This burgeoning knowledge extended not only to clinical medicine but also to other areas of concern. The growth in the use of new technology was also reflected in the discussions of the Committee. For example, in 1981, the growing interest in computers was raised as a possible subject for future courses. (West of Scotland Committee for Postgraduate Medical Education, 1981) but as long ago as 1968, Todd was forecasting that computers would play an expanding role in the field of medicine in the future. He therefore recommended that every doctor should at least learn the basic principles. (Royal Commission on Medical Education, 1968)

CHAPTER NINE

ASSESSMENT IN POSTGRADUATE MEDICAL EDUCATION

> "If we wish to discover the truth about an educational system, we must look into its assessment procedures. What student qualities and achievements are actively valued and rewarded by the system? How are its purposes and intentions realized? To what extent are the hopes and ideals, aims and objectives professed by the system ever truly perceived, valued and striven for by those who make their way within it? The answers to such questions are to be found in what the system requires students to **do** in order to grow and prosper. The spirit and style of student assessment defines the de facto curriculum." (Rowntree, 1987)

What is Assessment?

Rowntree (1982) defined assessment as finding out what student abilities and attitudes are and how they've changed since last assessed. Thus assessment did not necessarily mean testing and could be as informal as asking students for their opinions.

It is often assumed that the terms assessment, examination and measurement are synonyms. However several writers have argued that this is not the case (Wilmut,1980; Rowntree,1987). Wilmut suggested that far from being synonymous, these terms form a hierarchy with measurement at the bottom and assessment at the top.

Role of Assessment

The role of assessment has been discussed by many writers. Wilmut(1980) felt that formal assessment was used to establish a measure of a student's attainment, to act as a selection mechanism and to provide incentives to students.

Brown (1988) emphasised that selection wasn't the only function of assessment. Assessment was also undertaken to diagnose the cause of student success or failure; to motivate students to learn; to provide a valid account of what has been achieved; and to evaluate the course.

Dealing primarily with achievement tests, Ebel (1979) felt that the functions of such tests were to measure student

achievement; to motivate and direct student learning; to cause teachers to think about goals and to provide the educational experience of taking the test.

In medical education much discussion has centred around the need to assess skills rather than knowledge. For example Meuleman and Caranasos (1989) described a scheme to assess the interviewing skills of interns while Bruce (1989) was interested in procedural skills.

The use of assessment for diagnostic purposes was proposed by Simpson (1988). She felt that terminal tests tell the teacher how much students remember of what they have been taught, not what they actually know. And following on from this, if students don't have all the knowledge necessary to understand what they are taught, then idiosyncratic learning is inevitable.

Likewise, Black and Dockrell (1984) suggested that very often so-called continuous assessment was merely a"staccato form of terminal assessment", with very little feedback to students. They argued in favour of diagnostic assessment primarily designed to help pupils to learn. Unlike most forms of assessment, diagnostic assessment is competitive only in the sense that individual learners try to better their own attainment, not compete with their classmates.

The concept of using assessment as a diagnostic tool was also

dealt with by Viets and Foster (1988) who described a competency-based assessment procedure for anaesthesiology residents. Here, a checklist of criteria were used on a monthly basis for diagnostic purposes and also for terminal assessment.

In the same way Hodder (1989) stressed the importance of immediate feedback during an objective structured clinical examination while Albanese (1989) used information technology in order to improve feedback to anaesthesia residents.

Drawing on the work of all these writers, one can compile a list of roles for assessment which is wide ranging. This list would include using assessment to test student attainment, for selection purposes, to provide student incentives, as a diagnostic tool, as a data collection method for evaluation, as an educational experience and to help teachers formulate objectives.

The Dunning report (Committee to Review Assessment in the 3rd and 4th Years of Secondary Education in Scotland, 1977) identified two types of reasons for assessing, one related to the individual and the other related to society. He felt that "because assessment is used for a variety of purposes and because interaction with the curriculum is complex, no single procedure such as an external examination is likely to meet all desirable ends. What is required is a system incorporating a variety of measures attuned to a variety of

purposes."

This desire to move away from single examinations was echoed in the postgraduate medical education literature. For example, Merrison rejected a "once and for all exam" for the assessment of trainees. He stressed the need to look at other methods. (Committee of Inquiry into the Regulation of the Medical Profession, 1975) Likewise, Todd felt that the various medical diplomas dominated training experience. As a result any attempt at continuous assessment was ludicrous while training was geared towards passing a single examination. (Royal Commission on Medical Education, 1968)

Quality of Assessment

Eggleston (1984) identified three central areas of conflict in formal examinations. These were who should be examined; what should be examined and what value should be placed on the examination.

According to Macintosh (1974) "when teachers... become too impressed with the importance of examination results, then the temptation to distort teaching in order to obtain satisfying results becomes evident". Wilmut (1980) also warned against reducing the curriculum to examinable material. This danger is very real in undergraduate medical education where students will question at the start of every class "is this in the examination?" and perhaps more

worryingly, will not attend if it is not.

Ebel (1979) discussed the quality of educational assessment. According to his theory this quality depends on both what is measured and how it is measured. In other words, Ebel was discussing relevance and reliability which together produce a valid test.

A lot of work has been done in medical education on evaluating assessment instruments to ensure their validity. For example Gordon (1988) looked at whether trainees could identify simulated patients, while David (1986) was concerned with interrater agreement when rating the skills of paediatric residents.

Quality implies a stipulation of standards. Macintosh (1974) recognised the problems inherent in equating standards where the assessment of course work as opposed to standardised tests was concerned.

According to Straughan and Wrigley (1980) educational standards are not straightforward empirical questions of fact. They cannot be divorced from questions of value. That is, do we measure what we value or do we value what we can measure? Students will quickly realise the relative importance of topics in a course by what is in the examination.

The standards of assessment in postgraduate medical education are not a new problem. Goodenough deplored the proliferation of diplomas in medicine. He felt that there were too many and that there was too much variation in standard. He therefore recommended that the award of all postgraduate medical diplomas, with some stated exceptions, should be undertaken by the Royal Corporations. (Interdepartmental Committee on Medical Schools, 1944)

One of the major problems in medical education is defining clinical competence. Most experts are agreed on the essential skills which require to be tested. No such agreement exists however on the level of competence in such skills. Maguire suggested the use of Delphi and critical incident techniques to devise checklists. This method was utilised by Viets and Foster(1988) in developing a system to assess anaesthesia residents.

Methods of Assessment

An important point raised by Wilmut (1980) was the credibility of assessment methods. He questioned the credibility on three levels. Firstly the quality of the measurement depends on the examination board, secondly what is being assessed depends on the teachers and finally the value of the qualification obtained depends on society.

These points were echoed by Gronlund (1985) who felt that one

of the principles of assessment was the proper use of assessment techniques. According to this principle, the teacher requires an awareness of both the assessment method's limitations and strengths.

Dunning (Committee to Review Assessment in the 3rd and 4th Years of Secondary Education in Scotland, 1977) felt that the answers to the questions when, who, how and what to assess depended on the purpose of the assessment. The timing, form and scope of assessment should be appropriate to the type and level of the course, but the assessment should reflect not create this distinction.

Likewise, Rowntree (1987) stressed that different methods of assessment call for, and test different abilities and qualities. This is illustrated by the reports of studies in postgraduate medical education which describe the use of either specific methods (Rethans and Boven, 1987) or combinations of methods (Bruce, 1989) to assess specific knowledge and skills.

At the Green College seminar Campbell (1986) complained of the problem of assessing clinical competence. This problem of defining the concept of clinical competence has been discussed by many writers. Maguire (1989) felt that there was general agreement about the definition of skills. The controversy arose over the establishment of the level of skill which could be defined as competence. He regretted

the fact that current assessment methods encouraged the emphasis of facts rather than skills.

Medical education as a field of study has not been slow to invent new methods of assessment where no suitable method existed. These new methods include the objective structured clinical examination (Harden, 1988) and the modified essay question (Knox, 1989).

Many aspects of medical competence cannot be adequately tested using the traditional assessment methods of oral and written examination. The objective structured clinical examination was developed in an attempt to rectify this situation. It is in essence a practical examination where students complete standardised tasks at a number of stations where they are assessed using a previously agreed set of criteria. The use of this method means that it is possibleto examine large numbers of students in a short time, the examination is standardised for all candidates, the use of checklists ensures minimum variability in marking and the nature of the examination forces examiners to assess objectively. In addition the use of this form of assessment may provide motivation for students and may show up weak points in the teaching. (Harden, 1986a; Peden, 1985)

A similar problem in the United States produced a slightly different solution. A test was required to test the clinical competence of foreign medical graduates. The

method developed used an amalgam of physical examination on simulated patients; patient-related written tests and laboratory tests.

Assessment and Employment

Dale and Pires (1984) discussed the relationship between qualifications and employment. They proposed that credentials don't necessarily help you to do a job better, but they could help you to get a job.

In medicine, according to Todd, membership and fellowship examinations measure the potential ability to become a consultant not the actual achievements of a candidate. The examinations had a high failure rate and the timing of examinations in postgraduate medical education were inappropriate and uncoordinated. He recommended that during general professional training the assessment should be continuous rather than a single pass or fail exam.(Royal Commission on Medical Education, 1968)

The problem of high failure rates, particularly in the MRCP examination was tackled by Mir (1989). He suggested that there were several reasons for the continued failure of so many candidates. According to his study, candidates who had failed blamed this failure on the dogmatism of the examiners, while their tutors believed that they were teaching the orthodox behaviour so candidates failure was due

to a failure to conform to this behaviour.

The theme of values of examinations was taken up by Ormell (1980) who reminded readers that an examination result has a social reality and as a result becomes a glittering prize. This could mean that eventually students come to want the certificate more than the learning which is signified by the certificate. (Rowntree, 1987)

Even between various examinations, there is a hierarchy of status. For example, according to the local Committee, although the university granted higher academic qualifications, membership and fellowship of the Royal Medical Corporations should normally be the higher vocational qualification. (Postgraduate Medical Education Committee, 1947)

Mitchell (1988) looked at assessment in the workplace. She stressed the need for work-based assessment to take place in "marketable clusters of competence". In other words, the skills and knowledge being assessed must relate to actual work situations.

In assessing occupational competency, Ebel (1979) argued that tests very often measure the applicants knowledge of how the job ought to be done. This does not necessarily guarantee success in the practice of the profession.

Todd recognised this fault in external examinations. He therefore recommended a system of vocational registration which would signify a reasonable minimum standard of informed competence in a specified field. (Royal Commission on Medical Education, 1968)

Merrison too recommended a form of vocational registration which would mark the attainment of an educational standard. Therefore education and registration must keep in step. In the days when the initial registration had been introduced then a medical degree marked the necessary standard. Today, that standard had moved but registration had not kept pace. However, he warned against equating equivalent standards with uniformity. (Merrison, 1975)

This last sentiment was echoed by Rowntree who proposed that to treat people equally is not necessarily to treat them fairly. (Rowntree, 1987)

CHAPTER TEN

EVALUATION IN POSTGRADUATE MEDICAL EDUCATION

What is Evaluation?

"Evaluation" is an uncertain term. In the American literature evaluation covers what we tend to refer to in this country as assessment. In this chapter I will use the term in the same way as Rowntree (1982) to refer to the fourth element of the educational technology cycle, that is identification, planning, implementation and evaluation. In other words, evaluation is part of a process not an isolated incident.

On the question of evaluation, Harlen (1980) identified certain decisions which need to be made regarding the criteria of the evaluation. These included what to measure, who to ask and what to report. He emphasised however that there was no right or wrong way to evaluate. The choice of methods often involved the evaluator's ideology of education. Thus the degree of dependence on evidence of measurable learning outcomes or alternatively on the examination of processes and conditions in evaluation reflect differing views of education.

In the case of adult education, Ruddock(1981) claimed, provision is largely dependent on commercial factors, In

other words, which educational activities are financially viable, and will bring in the most revenue? If evaluation is carried out by an economist then the questions asked would concern the reasons for devoting resources to education, how best to allocate resources and who should benefit from the investment?

The same may indeed be true of postgraduate medical education but much to their credit, in the West of Scotland the Committee agreed that financial loss was no reason for terminating an otherwise satisfactory course. (Postgraduate Medical Education Committee, 1959)

The approval of posts for pre-registration, general professional and higher specialist training has been a function of the local Committee for many years beginning in 1945 with the appointment of returning medical officers to clinical training posts, and continuing in 1953 with the introduction of the pre-registration year. This inspection and approval of posts was and still is in effect an evaluation of the educational quality of such posts. (Postgraduate Medical Education Committee, Western Regional Committee for Postgraduate Medical Education, West of Scotland Committee for Postgraduate Medical Education)

Evaluation can often be looked on with some suspicion byboth teachers and taught. There is a tendency to see all evaluation in terms of being judged. One way to overcome

this resistance is to involve teachers and students in the evaluation process right from the start. This was the ideology behind the work of Thal and Sheehan (1986).

Objectives

Shipman (1979), in discussing evaluation suggested that a course of study can be successful without anyone actually spelling out the objectives, but success would still be judged against implicit criteria. As different people have different priorities in judging education, then a public statement of the objectives clarifies these criteria, even if not everyone agrees with the objectives selected.

Objectives provide a focus for evaluation but they do not automatically imply the means of assessing them. The evaluator thus has to establish the criteria for success. However, in evaluation, numerical measures are not enough. Judgement must also come into the equation.

McMichael (1988) suggested that although it may be satisfying to prove that one method of education is supposedly more effective than another in a given circumstance, what does this achieve? The answer depends on the aims of the evaluator which in turn depends on his model of medical care.

Why Evaluate?

Shipman (1979) stressed that evaluation was not an end in itself, but an aid to decision-making. That decision might be whether to continue with the course being evaluated, whether to raise the pay of the teacher or whether changes could be made which would improve the course.

Working on the assumption that the underlying reason for evaluation was to improve the quality of education, Harris (1981) identified professional, social and economic reasons for evaluating.

Rowntree (1982) asked why bother evaluating? The reasons, he felt were to improve the design of learning experiences and to prove that education had been worthwhile.

The recognition of the need for evaluation in postgraduate medical education is relatively recent. In 1986, at the Green College seminar, Lister reminded the audience that the provision of facilities and programmes for education does not of itself ensure better patient care. (Lister, 1986)

At the same seminar Bevan (1986) called for research into the educational process. There was a need, he said, for cost effectiveness and it could no longer be assumed that postgraduate medical education automatically improved patient care. Some form of proof was needed.

The medical education literature does provide some examples

of evaluation particularly in the continuing medical education sphere. (Jennett, 1988; White, 1985) However, some studies have shown that education makes no significant difference to patient care. (Murphy, 1989; White, 1989) This could be due to various factors but often it is the reliability of the evaluation strategy which is questioned.

Haynes (1984) in a well-cited report looked at previous reported evaluations. He found that although continuing medical education does appear to improve patient care, some of the methods employed to prove this theory were suspect.

Methods of Evaluation

Rowntree (1982) suggested that there are two approaches to evaluation. The first has its origins in scientific method while the second is based more on anthropology. Thus in the agriculture-botany approach, the emphasis is on measurement while in the illuminative approach the emphasis is on observation.

Before beginning an evaluation, the evaluator must ask himself what he wishes to identify and describe, by what means and among whom. However, having answered these questions and designed his evaluation, the evaluator must be alert for unexpected outcomes.

Ruddock (1981) itemised a lengthy list of methods which could

be used for the purposes of evaluation. Among these experimental methods, measurement and surveys are probably the most well known and the most used.

Castleden (1988) described a method which he had devised over several years as a medical teacher for assessing his skills as a teacher. This method was based on the examination scores of his students placed in comparison with national average for that year. He acknowledged the deficiencies of the system particularly the fact that one required at least five years worth of data before the results became valid and the fact that the results were norm-referenced. Nevertheless he recommended it as one tool which could be used in conjunction with others, for example evaluation of the teacher by the students.

Another attempt to establish teaching effectiveness was reported by Cariappa and Devasundaram (1988) who used pre and post tests on students to evaluate both the process and the outcome of a teaching intervention.

Many reports of evaluation in medical education relate not to a course of study but to an assessment instrument. One example of this type of evaluation is that undertaken by Flavin and Gavin (1988) where an instrument designed to identify the needs of doctors in relation to diabetes knowledge was pilot tested both on trainees and on experts.

Another frequently reported form of evaluation relates to the use of new technology in teaching. For example, Garrett and Ashford (1986) report the successful results they obtained on evaluating a computer-assisted learning package for oncology residents.

The reports of "evaluation" from the local Committee over the years show a marked progress from implicit to explicit and from basic to more sophisticated methods. The first couple of mentions merely report the successful feedback from students.

For example, a course in general medicine and surgery was voted as quite successful by the Committee with the report that some graduates had expressed their appreciation. (Glasgow Postgraduate Medical Association, 1931) On the same theme, in 1939 the Committee reported that the courses being run for insurance practitioners were on the whole very successful and much appreciated. (Glasgow Postgraduate Medical Association, 1939)

From letters of appreciation, the next step was to channel this feedback into suggestions for improvements of future courses. Thus after the courses for insurance practitioners, reports from the Glasgow course indicated that it had been successful and much appreciated. The Committee reported that a number of suggestions had been put forward for future courses. (Glasgow Postgraduate Medical Association, 1938)

Another example of feedback showed that after the second world war, the first course for returning general practitioners had held an open discussion at the end of the course. During this discussion the opinions expressed by the participants had been favourable. The Committee had received valuable, constructive suggestions for future courses. (Postgraduate Medical Education Committee, 1946)

The next link in the chain shows the Committee beginning to actively look at inviting suggestions for improvements. The intensive courses run by the Committee for returning medical officers were reviewed in the light of the convener's report of the first few courses. As a result the duration of the course was increased to eight weeks. And for the same course, a meeting was held of all the teachers involved in the course which resulted in some modification of the teaching. (Postgraduate Medical Education Committee, 1946)

In a similar vein, following a worry that the courses had become stereotyped, the Committee decided to circulate a questionnaire to the teachers giving them an opportunity to put forward ideas for improvements. In the results which were returned suggestions included:

-where possible clinical and pathological demonstrations should be held in the same hospital on the same day

-faculty hall should be used for lectures

-cooperation needed between units

-university to provide facilities for providing duplicated synopses of lectures

(Postgraduate Medical Education Committee,1948)

This search for evaluative information was not restricted to the teachers. Prospective students were also canvassed. For example, the chairman of the Committee discussed the provision of an FRCS course with four trainees who had undertaken a similar course in Edinburgh. These trainees would have preferred attachments as demonstrators in anatomy and physiology to a formal course. They would also have been willing to retake the undergraduate course in pathology. (Postgraduate Medical Education Committee, 1948)

Finally, there is evidence of the Committee looking at empirical evidence for the evaluation of a new course. The Committee received a report of the success of examination candidates who had undertaken the primary fellowship courses in 1951 and 1952. Of 32 participants who had now sat the exam, 9 had passed, 8 of these at the first attempt. 11 candidates had failed once, 5 had failed twice, 4 had failed three times, 1 had failed four times, 1 had failed five times and 1 had failed six times. (Postgraduate Medical Education Committee, 1953)

The Committee was not the only organisation running postgraduate activities in Glasgow and neither were they the only ones undertaking any form of evaluation. For example,

a course of lectures run by the College had been poorly attended so the College decided to run three courses each of one week's duration on limited subjects for registrars and consultants. The courses, in cardiology, gastroenterology and urology would offer sessions from experts from outwith Glasgow. (Postgraduate Medical Education Committee, 1956)

Elsewhere in the world of postgraduate medical education, there are reports of both small and large evaluations using a variety of methods and for a variety of purposes. For example Philipp (1989) described a fairly modest, straightforward evaluation of a course in environmental health using patient management questionnaires, while Sheets and Henry (1988) used a battery of methods to provide a comprehensive evaluation of a faculty development programme.

Evaluation of individual courses or programmes of training in medical education tend to result in positive results. Edwards, 1988; Thal and Sheehan, 1986; Jennett, 1988; Gask, 1988) although for the most part these results relate towhether the educational intervention has resulted in a change in behaviour among its intended population. Occasionally a less positive report appears. For example a continuing medical education programme on alcoholism (Brown, 1988) and a postgraduate medical education programme on health promotion (Knudson and Hosokawa, 1988) both report little or no significant change in the behaviour of the educands as a result of the said programmes.

SECTION FOUR

SPECIAL PROBLEMS

CHAPTER ELEVEN

GENERAL CLINICAL TRAINING

Aims

The pre-registration year is one of the few periods of postgraduate medical education for which explicit aims have been agreed. The aims are stipulated by the General Medical Council. These are the completion of basic education and the preparation for entry to the chosen specialty; giving general clinical experience under supervision; giving the student the opportunity to consolidate, apply and extend his knowledge and to continue to develop and refine his professional skills and attitudes. (General Medical Council, 1986a)

History

An intern year for all medical graduates was first suggested in this country at the beginning of the century. Newman (1918) recommended an internship based on the American model in his report in 1918 believing that this would provide young graduates with some general clinical experience before going into practice. At that time, the possession of an undergraduate medical degree gave the graduate the right to set up in practice without any further training or experience.

Newman's recommendations were echoed in later reports from Athlone (Postgraduate Medical Committee, 1921) and Greenwood (Ministry of Health, 1930), both of which also emphasised the need for some form of clinical experience after graduation. In 1944 the interdepartmental committee on medical schools chaired by Goodenough published its report. (Interdepartmental Committee on Medical Schools, 1944) Among the many far reaching recommendations in this report was the proposal for an intern or pre-registration year. Unlike its predecessors however, this report had some impact and many of its recommendations were acted upon. The result for general clinical training was the introduction of the pre-registration year in 1953, following an Act of Parliament in 1950.

Before the war, roughly half of British medical graduates went straight into independent practice. During the war, about 94% held a hospital appointment for at least 6 months as a result of war-time arrangements for call-up of doctors. Gooodenough recommended that "the necessary action should be taken to require every medical student, after he has passed his final examinations and before he is admitted to the medical register and allowed to take up independent medical practice, to serve as a junior house-officer for a period of 12 months in one or more approved hospitals."

The period or "pre" registration was recommended for both administrative and educational reasons. It would be easier

to withhold registration until a pre-registration year was completed than to delete those who did not comply. Also it was more likely to be viewed as an educational year if before registration.

It was emphasised that pre-registration post holders were to be regarded as students. The year was to be a time for consolidating knowledge, widening experience under guidance and supervision and developing a sense of responsibility. On a practical note, the pre-registration house officer required adequate time for thought, for further study and for personal investigations. He should be responsible for 30 beds in a non-teaching hospital but for only 20 beds in a teaching hospital. He should spend a minimum of six months in a single appointment in order to make his time in each post worthwhile. He should be provided with free board and lodging and should be paid on a scale uniform throughout the UK. In 1944 the figure recommended was £75-100 per annum. Finally, there should be no examination at the end of the period. Satisfactory completion of the period would be marked by a certificate.

Approval of Posts

Upon its introduction the pre-registration year caused a certain number of problems. The chief amongst these was the shortfall in the number of suitable posts. As a result, less rigourous inspection of the educational value of such

posts took place and it was a number of years before standards could be improved.

The Medical Act (1950) which established the pre-registration year did not specify any criteria for the recognition of posts. This lack of criteria meant that at times posts which were abundantly unsuitable for pre-registration experience were approved. By 1957 there was general recognition of the problems which unsuitable posts were causing. The Conference of Postgraduate Deans therefore set out basic criteria. These criteria were followed in 1967 by recommendations from the General Medical Council regarding posts. However, despite these valiant attempts, major problems remained. (General Medical Council , 1972)

The chief problem was the lack of suitable posts to fulfill the needs of the number of medical graduates being produced. As a result house officers were overworked and placed in posts which did not offer the training which the year was designed to provide. This was not the only problem however. Lack of supervision by consultant staff also caused considerable problems.

When the pre-registration year was established the responsibility for selecting and approving posts was delegated to the universities, the pre-registration year being considered as the final year of undergraduate medical education. In Glasgow, this task was further delegated to

the local postgraduate committee by the Faculty of Medicine who felt that it was postgraduate business. In addition as representatives of the College also sat on the committee, approval would be the concern of both university and college. The committee received a list of posts from each hospital which it then had to approve. Initially posts in such specialties as obstetrics, otolaryngology or ophthalmology were approved with the proviso that eventually they should form linked posts with more general medical or surgical posts, perhaps as 3 month rotations. The committee were strongly in favour of the scheme being as flexible as possible. (Postgraduate Medical Education Committee, 1952)

A year later, when considering the necessary revisions to the list of approved posts the problem of house officers being truly "resident" arose. In many hospitals the provision of accommodation for house officers was causing a major headache. The committee had therefore to decide whether a non-resident post could be approved. (Postgraduate Medical Education Committee, 1953) The committee were also concerned at that time with the legal position of withholding the certificate of satisfactory completion. The minutes reported that a solicitor was investigating this issue.

This question has arisen again recently. Irby and Milam (1989) looked at the legal problems involved in providing frank evaluations of students and residents in the United States. They concluded that courts would not overturn an

academic dismissal based on "honest professional judgement" providing that that judgement took into account the resident's entire academic record and that adequate notice of the resident's deficiencies had been given.

Following the publication of criteria for the approval of pre-registration posts, many postgraduate regions revised their approval procedures. In the West of Scotland there were major problems because of the number of posts which did not meet the new criteria. This was particularly alarming in view of the proposals to shorten the undergraduate clinical course if the pre-registration year could be said to be truly educational. (Postgraduate Medical Education Committee, 1959)

The responsibility for the approval of posts remains with the local Committee today. For example, in 1987 the local committee reported that every pre-registration post in the region had been visited with a view to revising the list of approved posts. Only a few had proved to be inadequate educationally. (West of Scotland Committee for Postgraduate Medical Education, 1987)

For the first few years after the introduction of the pre-registration year the arrangements for approving posts was not the only problem. For example, not all universities held their final examinations at the same time of year, therefore the appointment of junior house officers

was a year round procedure. Secondly there was little feedback about the value of the educational experience of individual posts. In 1972 the General Medical Council held a conference at which these worries were discussed. As a result of this conference a Code of Good Practice was published in 1973. This recommended synchronisation of start dates for pre-registration posts and laid down criteria for the approval of posts.

Assessment of Residents

Assessment in the pre-registration year is informal. There is no examination at the end of the year. This was a major specification of the original Goodenough proposals. Instead, each trainee must acquire a certificate of satisfactory completion signed by his supervisor for each six month period. These certificates when submitted entitle the holder to full registration with the General Medical Council. However, this certificate is an all or nothing assessment. The supervisor must say either that the resident has completed his period satisfactorily or not. There is no room for indicating specific strengths or weaknesses. This can become a problem especially if a trainee is having the same problems with each successive job, but no-one feels the problem is severe enough to warrant the withholding of the certificate. An improvement on this system could rest on the introduction of modular assessment as suggested in the final chapter.

Some attempts have been made to make the assessment of residents during their pre-registration year both more formal and more reliable. For example, the Aberdeen postgraduate organisation has introduced log books which residents and their educational supervisors must complete. These log books chart progress and accumulating skills.

Current Research

In the meantime research has been undertaken into the year as it currently stands, with particular reference to stress, workload, and educational value. Reports from these projects reveal major problems.

Several reports have addressed themselves to the problems of stress and excessive workload during the pre-registration year. For example Matthews (1988) introduced a programme designed to help residents cope with stress. This programme used discussion, role play, suitable literature and problem-based tasks in order to help residents come to terms with their problems and to ensure that these problems were dealt with in a supportive environment.

In this country, Firth-Cozens (1987) undertook a study of 170 junior house officers. The results of this research showed that the levels of stress among this group were much greater than for other occupational groups with a greater incidence of emotional disturbance, of heavy drinking and of drug use.

It was concluded that the major cause of this stress was overwork and that both the junior house officers themselves and the hospitals as their employers must address these issues as a matter of priority.

Lemkau (1988) studied the idea of "burnout" and concluded that no individual jobs or tasks were inclined to cause burnout. On the contrary, burnout was related to personality rather than to task. Similarly Alexander (1985) felt that the differences in the way doctors cope with pressure and stress have more to do with their inherent coping mechanisms than with the nature of the job.

Related to stress is the problem of sleep deprivation. Research on this issue has produced conflicting results. On the one hand, Storer (1989) suggested that cognitive ability was unimpaired by lack of sleep while some psychomotor skills requiring manual dexterity might be impaired. On the other hand, Hawkins (1985) found that both sleep deprivation and nutritional deprivation produced deficiency in the completion of primary mental tasks.

Recently the celebrated "Libby Zion" case in the United States has led to strict controls over hours and supervision for junior doctors. In this case, a young patient died because the doctor looking after her had been overworked and had been unsupervised. As a result, rules have been laid down regarding how long a doctor may work and that he must be

supervised at all times. However, this control has severe implications for medical education. As has been stated elsewhere a shorter working week implies that a training programme will be longer. (Petersdorf and Bentley (1989)

This is also a problem in this country where junior doctors have been demonstrating in support of a 72-hour week instead of the 80, 90 and sometimes 100 hours they are required to work at the moment. The aim of the residency period both here and in the United States is contact with patients which may have been lacking at the undergraduate level. However, with the rising costs of health care and the resulting shorter stays for patients in hospital this aim may be in danger of being abandoned. Certainly residents are "seeing" more patients, but this contact is of a clerical nature with time spent in paperwork and laboratory tests rather than in true patient contact. (Mellinkoff, 1989) This fact was confirmed by Lurie (1989) who conducted a time study of house officer's night duty tasks. This showed that most time is spent on procedures and paperwork with little patient contact.

A similar time study by Wilson and Weston (1989) looked at junior doctors in an anaesthetic setting and related the results to the Civil Aviation Authority regulations for airline pilots. They concluded that in order to meet Civil Aviation Authority regulations would require a large increase in staffing. They recommended that similar regulations

should be introduced in medicine.

The so-called distress of internship was summed up by McCue as follows : "residency training is not designed to eliminate those unfit for physicianhood by testing for toughness and survival skills, nor should it be; it should instruct physicians to practice medicine expertly and compassionately with a minimum of extraneous stresses." He went on to itemise the problems and suggest possible solutions. The major problems for young doctors lie in the pressures of time and in the increasing responsibility which they require to take for their decisions. McCue proposed that if problems were identified early, if working conditions could be improved and if support both formal and informal could be provided by a doctors colleagues then many of the stresses of internship could be eliminated.

Recent research reports have concentrated on the educational value of the pre-registration year. For example Gledhill (1985) published the results of a time and motion study which showed that house officers spend over 75% of their time in service tasks. By comparison supervised teaching session took up a very small proportion of their time. He therefore concluded that the educational value of the pre-registration year was small. However, the aim of the pre-registration year is to provide clinical experience and increasing responsibility.

If Gledhill's results were interpreted another way one might be forced to suggest that the pre-registration year was providing exactly the kind of educational experience for which it was designed.

A critical incident study by Calman and Donaldson (1989) produced some interesting data. Their conclusions suggest that the major problems relate to supervision, to practical experience, to organisational and communication skills and to the lack of educational input. They found that house officers complained of not knowing when they had done well. Feedback about their performance was difficult to obtain and as a result their training was not reinforced. Related to this point was the lack of skills which house officers brought to the year. This points to a failure of the undergraduate curriculum to provide graduates with adequate training in practical procedures, communication skills and organisational techniques. For example, procedures such as taking blood or inserting an intravenous drip, skills such as talking to relatives or eliciting a medical history, and techniques such as establishing priorities should, according to Calman and Donaldson be a part of the undergraduate curriculum.

Most importantly Calman and Donaldson recognised the lack of time for formal education, that is didactic lectures. They suggested that the pre-registration year is no time for formal education and that a better solution is for better use

to be made of the educational opportunities which arise in the every day clinical setting at the bedside and in the laboratory.

This point was reinforced in a recent project undertaken by Hutton (1989) to provide training in terminal care for the pre-registration year. This was a topic which had been identified as of particular importance by the Calman and Donaldson study. However, having set up formal seminars for this group, Hutton discovered that house officers just do not have the time to attend such sessions. It was not uncommon for tutorials to have attendances of one despite efforts to encourage attendance such as provision of lunch and explicit approval from the supervising consultant.

A Second Year

In recent years the pre-registration year has again been under discussion. The General Medical Council has issued documents on the aims of general clinical training and more controversially, on the extension of general clinical training to a second non-statutory year. This second year was intended to broaden the postgraduate education of young doctors, by delaying the inevitable specialisation.

Several writers have suggested the extension of the pre-registration year to two years. For example McGirr (1986) proposed that the pre-registration year should be

extended to two years where the second year would includenon-clinical subjects, formal education in the basic sciences and a piece of personal research. His reasons for this proposal were related to the way he thought the year had changed since its introduction in the early fifties. He felt that junior house officers were no longer strictly "resident" as they had been originally, the content of the year was more flexible than in the past and there was a strong clinical emphasis. The final aim of his proposals was for a two year programme similar to a master's degree. Thus, on completion a trainee would be able to commute his MB into an MMed which would in turn mark his suitability for full registration.

CHAPTER TWELVE

CONTINUING MEDICAL EDUCATION

Continuing medical education, semantically speaking is that form of medical education which "continues" beyond formal education. In other words, continuing medical education comes after the undergraduate degree and the postgraduate diplomas. However, in common usage, continuing medical education is often taken to mean only continuing medical education for general practitioners, as if it is only this group which requires to continue its education.

Aims

There is an assumption about continuing medical education, that its prime aim is to improve patient care. That may well be the case, but according to some writers there are other aims as well. Engel (1988) questioned the aim of continuing medical education. He felt that very often the primary aim is the maintenance and enhancement of the quality of patient care. However he questioned that assumption. Is that the sole aim of continuing medical education? Engel went on to postulate on the current debate on compulsory continuing medical education. He pointed out that this is based on the assumption that increased knowledge is an inevitable consequence of education and that it will naturally lead to improved patient care. Can this

assumption be made? Perhaps therefore one aim of continuing medical education is to change the medical profession.

In 1982 the Standing Committee of Doctors of the European Communities issued the Dublin declaration. This stated that continuing medical education is the ethical and professional duty of every practising doctor throughout his professional life. Further it stipulated that the purpose of continuing medical education was to promote the highest possible and continually rising standard of medical care for the public, by continuous renewal, extension and updating of professional skills. (National Association of Clinical Tutors, 1987)

In a similar vein, Hull (1989) stated that the purpose of continuing medical education was to help physicians maintain and update their competencies.

Curriculum and Methods

There has been much discussion about the curriculum for continuing medical education. Should there be a core curriculum or should clinicians be free to select their curriculum according to their individual needs?

Mohapatra (1988) was concerned with the curriculum for continuing medical education. In rural areas, particularly in developing countries the needs of doctors are for basic knowledge of things like nutrition and not for the high

technology medicine which may be required in a big city hospital.

The Scottish Council for Postgraduate Medical Education published a working party report on the development of medical audit as a component of continuing medical education. (West of Scotland Committee for Postgraduate Medical Education, 1981)

Audit in medicine concerns the appraisal of clinical performance, looking at for example morbidity rates in the operating theatre, or immunisation rates in general practice. The Scottish Council was concerned that audit should not become merely a financial exercise but that it should form an integral part of continuing education. Thus, audit would be used firstly as a self-assessment technique and secondly as an aid to curriculum planners.

Several surveys have been undertaken recently to look at the ways in which general practitioners undertake continuing medical education, if at all. The Grampian study by Shirrifs (1989) showed that only 33% were keeping up-to-date on a weekly basis. The most popular methods of continuing medical education were consultant's letters, magazines and short postgraduate courses. In comparison, unpopular methods were long postgraduate courses, meetings with drug representatives, and audio-visual or distance learning techniques. These results if they can be assumed to

be indicative of a general country-wide opinion carry some hard lessons for the providers of continuing medical education.

A similar survey of continuing medical education in Cardiff by Owen (1989) revealed little evidence of regular attendance by GPs at postgraduate centre meetings. Practice based educational meetings were however popular. Owens therefore made several recommendations to improve this situation. These included

a) the need for postgraduate centres to provide a range of events

b) the need to improve contact between GPs and hospital staff

c) the need to improve contact within practices

d) the need for research into the role of drug companies

e) the need to recognise the broad nature of continuing medical education

Lewis (1989) suggested that the poor attendance at educational activities could be because of differences in learning styles. Teachers will always tend to teach in their preferred style and if this does not coincide with the preferred style of the students, alienation will occur. Teachers should therefore vary their styles to take account of this factor.

When it comes to continuing medical education, the methods,

curriculum, organisation and assessment procedures are somewhat different to those in use for "formal" postgraduate medical education. There are several reasons for this. Firstly the average age of participants is older than that for postgraduate medical and this effects the methods which are most suitable. Secondly the aims are different with participants more likely to undertake an educational activity because they are interested than because they have to pass an examination. Thirdly the curriculum must be relevant to a participant's practice.

Owens (1988) identified the need for a slightly different method of teaching for older adults. He argued that the critical difference between young adults and older adults was in the process of encoding information. In other words, older adults failed to organise the information they received. As a result, teaching older adults must emphasise training in learning techniques, must provide directions within the learning materials and must structure the learning and content with older adults in mind.This has implications for continuing medical education, in particular where some learners are approaching retirement age.

Continuing medical education may take many forms. Particularly in general practice where a practitioner may work at some distance from an educational centre, distance learning methods have been devised to enable isolated doctors to participate in continuing medical education. However,

the investment required to produce distance learning materials is quite large and must be available long beforeany benefit can be accrued. With the new contract for general practitioners, there is a danger that the capital investment required for these kinds of innovations will no longer be available. (Buckley, 1989)

The postgraduate medical education centre is the hub of continuing medical education activity in each district. It is a venue where specialists from every area of medicine can meet, socialise, take part in discussion or listen to an eminent speaker. When postgraduate medical education centres were first introduced in this country in the early sixties, following the Christchurch conference, it was intended that they would provide both postgraduate and continuing medical education for all the medical staff within that district.

Todd (Royal Commission on Medical Education, 1968) stressed that continuing medical education should involve not just formal courses but should take full advantage of the postgraduate medical education centres which offered a lively programme of meetings and other group activities.

In the early days much of the activity in these centres revolved around the provision of lunchtime lectures for general practitioners. More recently that role has expanded to the point where many centres are not only providing a full

and lively medical education programme but are also encouraging interprofessional education.

As early as 1948 the local committee were reporting a decline in the popularity of general practitioner courses in favour of ward visits and free time. This reflected a movement away from didactic lectures. (Postgraduate medical Education Committee, 1948)

Compulsory Continuing Education and the New GP Contract

Attendance at continuing medical education activities has been a recurring problem. An American study looked at the problems of attendance at a large continuing medical education expo. Bowman and Sverha (1987) concluded that the reasons for the poor attendance lay in the advertising of such an event. They suggested that direct mailing had a greater impact than general advertising in the press.

The local committee discussed the problems of encouraging attendance at continuing education sessions by general practitioners in 1978. When the Scottish Home and Health Department dropped the required attendance for seniority payments, numbers attending dropped alarmingly. This problem was also compounded by the increase in the number of postgraduate centre lunch-hour lectures and the drug company sponsored educational events. (West of Scotland Committee for Postgraduate Medical Education, 1978)

One way of improving attendance at continuing education activities is to make them compulsory, or alternatively to offer a carrot to encourage practitioners to attend. Different countries have used these options differently at different times. For example prior to 1978, as mentioned above general practitioners in this country received a seniority payment if they attended educational sessions. However this practice was eventually dropped because doctors were inclined to sign in to a session and then either fall asleep or even creep out again thus negating any value which they might have gained from attending in the first place. The recent government white papers have placed continuing medical education on a different level. For general practitioners especially, continuing medical education will in effect become a compulsory activity. (Department of Health, 1989; 1989a)

The new contract for general practitioners in the UK states that they will receive a postgraduate education allowance totally approximately £2,000 providing they have undertaken 25 days of postgraduate education aggregated over the previous 5 years. Of these 25 at least two must be taken from each of the three areas : health promotion and prevention; disease management and service management. This allowance is intended to be used for course fees, travel and subsistence while attending education sessions with anything left over being considered as practice income.

This contract assumes that doctors will select a balanced programme suited to their individual needs. However Brooks (1989) questioned this assumption. He felt that

a) lectures are the cheapest form of education

b) GPs will choose activities which are attractive and comfortable not those which they need

c) courses chosen will depend on the likelihood of enhanced practice income e.g. child surveillance

d) courses chosen will depend on their timing, that is so that they do not interfere with working time.

Brooks also feared for the continued existence of postgraduate centres. He suggested that because continuing medical education would now be open to market forces, postgraduate centres which were unable to attract revenue would be forced to close. This has important financial implications for the provision of postgraduate medical education in general not just continuing medical education for general practitioners. Postgraduate centres are not profit-making organisations. They provide medical education to EVERY medical and dental practitioner within their district and by so doing encourage social intercourse between different specialists. However, some competition might be a good thing in postgraduate medical education. It could encourage the provision of more quality courses, a more professional attitude to the provision of these courses, and a greater choice of courses for the consumer. However,

there is a danger that course providers would try and cut costs in order to make their courses as financially attractive as possible, or would offer attractive trimmings such as upmarket venues in order to attract custom rather than pay enough attention to the value of the actual educational content of the course.

On a more positive note however he proposed that regional advisers should set the standards for course design, for educational process and for evaluation, thus ensuring a quality in any courses approved under the contract. A working party of regional advisers in England and Wales had already drawn up a set a criteria for courses. These should ensure that activities were of a high educational standard, relevant to primary care and to GP learning needs. This in turn meant that methods should be educationally cost effective and properly evaluated, that the range of activities provided should meet the wide variety of needs and learning styles and that specially trained GP tutors should be involved in the approval of such courses.

The question of the new contract for general practitioners has brought into focus in this country the whole question of whether continuing medical education should be compulsory. In the United States many states insist on re-certification on a regular basis to ensure the maintenance of competency. This has become increasingly important in a country with a growing number of lawsuits being brought against incompetent

doctors. In fact, although recertification (that is, re-examination) is not always compulsory, all American doctors whatever their specialty must re-licence every three years. This relicensure involves meeting the criteria of the Accreditation Council of Continuing Medical Education. These criteria include documentary evidence of having attended a set number of approved educational sessions.

In the United States, the American Academy of Family Physicians lays down guidelines for postgraduate education. In order to maintain membership of the Academy a family physician must have logged 150 hours of postgraduate education during the previous three years. These hours may consist of lunchtime lectures, conventions, case study reviews, teaching, research activities, home study courses etc. In order to qualify at least half of the prescribed hours must be approved by the Academy. This provides a fairly flexible approach to continuing medical education.

Australian doctors appear to be moving more and more towards this American model. For example the new Royal Australian College of Obstetricians and Gynaecologists included in its articles from the beginning the precept of time-limited fellowship and more importantly the insistence on evidence of continuing education before renewal of that fellowship. Unlike the British GP contract however educational activities are allocated points according to their educational value.

In order to renew his fellowship, a fellow must accumulate 100 points during the previous three years. As with the GP contract a maximum of each type of activity is specified. By contrast in Norway general practice is an independent specialty with a five year non-mandatory postgraduate programme. This leads to specialist recognition lasting five years. Re-certification is then required based on having spent at least one of the last five years in general practice and having undertaken 350 hours of theoretical education. Hoftvedt (1988) reported on the evaluation of a system of continuing education to meet these criteria which was based on group work lead by a trained tutor.

The Dublin declaration stated that continuing medical education should not be compulsory. (National Association of Clinical Tutors, 1987)

Organisation of Continuing Medical Education

In 1973 the Scottish Council for Postgraduate Medical Education published a report on continuing medical education for general practitioners. This stated that

a) continuing medical education was an integral part of modern medical practice

b) the objective of continuing medical education was to keep general practitioners up-to-date, to present them with the growing knowledge and to stimulate research

c) the needs of general practitioners needed to be

identified

d) courses must be relevant , must promote the exchange of ideas and must be varied

e) recognition of suitable courses should be the responsibility of the Scottish Council not the Scottish Home and Health Department.

Zimmerman and Kokemueller (1988) called for international cooperation on continuing medical education. With the increasing mobility of medical manpower both within and outwith the European Community continuing medical education can no longer be a provincial concern. They felt that with the growth in global knowledge it would be more efficient and would work towards a more effective community for continuing medical education to be organised on an international level.

Mathias (1988) called on universities to take continuing education more seriously. In the past continuing education has been considered the poor relation of higher education. However, with the current moves towards making money in higher education establishments, continuing education becomes a more attractive proposition.

The problems of continuing medical education are not a purely British phenomenon. For example at a WHO expert committee on continuing education for physicians in 1973, it was stated that

"although some countries have

made significant progress in organizing a system of continuing education for physicians, and all countries have acknowledged the importance of doing so, the present efforts in this field are often unsystematic, poorly supported, little influenced by contemporary educational science, episodic, focussed more on transmitting new information than on improving competence, and are only incidentally related to health needs and national health priorities." (Vodoratski (1988)

This led in 1974 to a resolution calling on member states to consider

"the development of national systems of continuing education for the health professions based on national and local health needs and demands, integrated with health care and educational systems, with full utilization of the resources of universities and schools of health personnel, the promotion of the systems approach

> in educational planning for continuing education and the periodic assessment of the quality of health personnel in delivering preventive and curative health care."

In 1928, the local committee were in correspondence with the Scottish Board of Health with a view to providing postgraduate opportunities for general practitioners in the Highlands and Islands. The major obstacle to this provision was lack of funds. (Glasgow Postgraduate Medical Association, 1928)

Similarly in 1937, the Department of Health for Scotland proposed that grants might be given to allow every practitioner to take study leave regularly every five years. The local committee were eager to cooperate but due to other circumstances at the time, chiefly an increase in the capitation fee to practitioners which limited the finance available for the scheme, the proposal was postponed.

After the Second World War, the local committee instigated a course of study for practising general practitioners which would run like a day release course and covering 22 half days. (Postgraduate Medical Education Committee, 1945) By 1946, the needs of demobbed officers had on the whole been met so the meeting of postgraduate deans, royal corporations

and the Department of Health for Scotland discussed the extension of the scheme to cover all insurance practitioners. (Postgraduate Medical Education Committee, 1946)

Service versus training conflict

The service versus training conflict which was discussed in a previous chapter takes on particular problems in continuing medical education. For example, with the new general practitioner contract, general practitioners will be required to spend 26 hours per week in direct contact with patients and this contact must cover at least four days. In addition, as mentioned above, they must spend 10 sessions (1 session = 3 hours) each year in continuing medical education. The startling paradox which arises from this is : who will have time to organise the continuing medical education? This will be a major problem for advisers and course organisers who have until now taken time away from patients to perform this duty.

In the same way, consultants, having completed their formal postgraduate medical education want to get on with the job of treating patients. Education, until that point a necessity for advancement, is afforded a lower priority and service takes precedence.

Evaluation

As mentioned in a previous chapter some evaluation studies have been undertaken in continuing medical education with varying results. Some (Jennett, 1988; White, 1985) suggested that continuing medical education does improve patient care while the results of others (Murphy, 1989; White, 1989) suggested that continuing medical education had no significant impact on patient care.

The study undertaken by Hull (1989) to evaluate a continuing education programme designed to encourage autologous blood donation illustrates some of the problems of evaluation in the continuing education sphere. The results of this evaluation showed that although the programme had improved some aspects of physicians' competencies, others had been unaffected.

What one must therefore ask is
a) what are the aims of the continuing education programme?
b) has the evaluation been designed with these aims in mind?

Most of the evaluation studies reported in the medical press make the assumption that the aim of their programme is to improve patient care and that is therefore what they go out to measure in their evaluation. Is it therefore surprising if the results prove inconclusive when evaluation and aims are at odds?

It is necessary to recognise that the improvement in quality

of patient care though important may not be the only aim of continuing medical education. For example, perhaps the needs of the doctors as consumers of education should also be taken into consideration. In a later chapter the question of a more liberal education will be discussed more fully. That argument will suggest that doctors should be educated men and women who have a knowledge and understanding of the world around them. That education should not end at the end of formal education.

Another aim of continuing medical education therefore should be to continue the "education" of medical practitioners throughout their professional life and beyond.

In addition the statement of aims is all very well but some further refinement into workable objectives is also required before a true evaluation can take place. For example, if a course on AIDS is designed for general practitioners with the aim of improving patient care the objectives might range from ensuring the safety of patients through the correct handling of needles and blood samples to the setting of an AIDS counselling service. Without doubt evaluation of these objectives would require different methodology and should look at different aspects of patient care.

CHAPTER THIRTEEN

TEACHING THE TEACHERS

> "If a doctor adopted as random an approach to his clinical work as was evident in his approach to his teaching he would undoubtedly be held to be grossly incompetent." (Parry, 1987)

> "There is a distinction between being at the leading edge of medicine and being able to teach medicine in order to foster the creation of strong anchor points in the students' memories" (Bordage, 1987)

Why do we need teacher training?

In medicine, part of the job of any doctor is to teach his junior staff. Sadly, very few are naturally gifted teachers and even fewer have any formal training in how to teach. Green College (1986) called for the training of the trainers. The audience were urged to learn from General Practice who had been training all GP trainers for a number

of years with a marked degree of success. In his consideration of the pre-registration year, Todd (Royal Commission on Medical Education, 1968) reiterated the need for a period of training in general clinical method under the supervision of a consultant of high standard who had the time to plan appropriate methods of teaching and systematic instruction.

The word doctor comes from the latin word "docere" to teach. From earliest times the doctor has been considered an educated man and a teacher. That role still exists for every doctor today. The age-old tradition of apprenticeship to a master is still in essence the method of postgraduate medical education despite all the new innovations.

But do doctors know how to teach? There is nothing in the undergraduate curriculum to teach them how to teach. The postgraduate period too is, on the whole, lacking in this sort of training. How then do doctors learn their educational craft? For many their teaching methods are evolved from how they themselves have been taught.

Attempts to teach the teachers have been undertaken from time to time. In a useful example, Mitra and Adkoli (1988) reported that an educational workshop for postgraduate students proved useful not only in improving teaching skills but also in highlighting and improving communication skills generally.

The inclusion of some form of educational theory and practice into the medical curriculum is important not just for the doctor's future responsibility to teach his trainees. Increasingly all health professionals must take on the role of teacher to their patients(for example in explaining a drug regime, or in health promotion) and as such teaching should be considered among the clinical skills. A one-week programme for all health professionals was described by Lorenz (1987). This programme used demonstrations, practice and then feedback to teach basic techniques. An evaluation of this programme showed that it was effective in improving teaching skills but the authors acknowledged their lack of data of its indirect effect on patient education.

Similar teaching initiatives have been undertaken by Greenberg and Jewett(1987) and by Craig and Page (1987). Both used student electives in order to introduce this teaching and both reported the success of their respective programmes. However, electives by their very nature are only taken by those students who choose or "elect" to pursue them. In other words, those future doctors who have not taken an interest in education at this stage (or who just haven't enough hours in the day to pursue all their interests) miss out on acquiring a skill which is central to their later professional competence.

Recently more attention has been paid to the needs of the teachers in medical education. The General Medical Council document on the training of specialists placed a much greater emphasis on identifying the teaching responsibilities in postgraduate medical education. (General Medical Council, 1986) This emphasis became the theme of a conference in 1987 (Parry, 1987) at which these issues were discussed. In particular it was recognised that many medical educators lack even the most elementary knowledge of educational theory. This situation can not be allowed to continue. The quality of future generations of doctors relies on the quality of their tuition today. If that tuition is lacking then there is bound to be a corresponding lack of quality in patient care. It is also a waste of resources for young doctors to undertake a long and expensive training programme from which they may emerge without the necessary knowledge and skills to do their job properly. In general practice trainers are selected after a thorough approval process which involves the quality of their practice and their attitudes and skills in teaching. This precept must be applied to hospital medicine where there is an urgent need for clinical and technical skills to be actively taught and regularly scrutinised.

Younghouse (1987) suggested that not only participants but also the teachers of continuing medical education are motivated to take part by the benefits they expect to receive. In the case of the learners these benefits might be validation of prior learning, increased professionalism,

enhancement of professional role etc. For teachers Younghouse identified five benefits which might encourage them to participate. These were an enjoyment of teaching; an opportunity to keep current in their field of expertise; interaction with professional colleagues, keeping up to date in matters pertaining to patient care and finally gaining recognition among peers and colleagues.

At a local level, certain moves have been made to rectify this situation. For example in Glasgow a two-day teaching methods course is run annually, while for those who wish to take this study a little further there is the Education and Medicine certificate. In Dundee too, courses are run on curriculum planning, assessment methods, distance learning techniques etc.

These initiatives are small in relation to the great number of doctors, but they are a beginning and the response to the provision of such courses is encouraging enough to suggest that this may be the way to proceed.

Methods

Most authors admit that there is no one ideal teaching method. Many echo the thoughts of Rowntree (1982) who felt that any teaching strategy should be determined by the nature of the knowledge, skills and attitudes to be transmitted and by the needs of the students.

One of the most important decisions in the planning of the curriculum is the selection of teaching methods. The papers of the local Committee over the years have reflected the introduction of new technology to teaching, but have also reflected a reluctance to move away from the old, tried and tested methods. Throughout the seventy year period, the most frequently used methods were still lectures, clinical demonstrations and clinical experience. That is not to say that these methods are not the most suitable for the teaching involved. However, there is little evidence of any form of evaluation of the various methods available.

Highet (1951) thought that students learn by example. It is therefore imperative that that example be planned and organised. In other words, in a clinical situation, a clinical teacher must be forever aware of the need to plan his clinical work in such a way as to provide a meaningful example to his students.

Teaching according to Carroll (Block, 1971) is the process of the management of learning. This involves specifying what is to be learnt; motivating students to learn; providing instructional materials; administering learning materials at a suitable rate for each student; monitoring students' progress; diagnosing difficulties and providing remediation; giving praise and encouragement; and giving review and practice.

According to Highet (1951), it takes will-power, sympathy with your students and an artistic sense to design a course. He identified three main methods of communicating with students. These were lecturing, tutorials and prescribed work. All had advantages and disadvantages and each should be selected according to the purpose required. He emphasised that there was no best way.

Ellington (n.d.) too identified three major groups of techniques in teaching although his list differed from that of Highet. Ellington identified mass instruction, individualised learning and group learning as separate groups. A comparison between the two lists however reveals an emphasis on the size of group as the criteria for classifying methods.

Lectures are perhaps the most common form of teaching method in postgraduate medical education. Bligh (1971) suggested that lectures were as effective as other methods (but not more so) for transmitting information, but were less effective for the promotion of thought; the learning of problem-solving skills and the changing of attitudes. However, in order to be effective in transmitting information, there were many factors which a lecturer should be aware of. These included factors affecting memory and factors affecting attention, for example the use of feedback and repetition.

There are several examples of the local Committee putting aside lectures in favour of other more practical methods. The Committee expressed its unhappiness about didactic courses on several occasions. For example, in planning a course for the final FRCS, the committee dismissed a didactic course in favour of teaching ward rounds. (Postgraduate Medical Education Committee, 1958)

Similarly the College of General Practitioners disliked formal lectures preferring discussions and demonstrations. (Postgraduate Medical Education Committee, 1960)

But lectures also had their place and at times proved to be too popular. Having discovered that providing a free lecture series was drawing clients away from the clinical demonstrations, the Committee decided to abandon the lecture series and to incorporate the lectures into the demonstration series with a corresponding fee. (Glasgow Postgraduate medical Association, 1975)

Although it has long been recognised that lectures are not an ideal teaching medium, their traditional use in medical education ensures their continuing place in the curriculum. Schwartz (1989) developed ways of using the lecture as a means of small group learning thus overcoming some of the many problems associated with the lecture system. He devised a list of objectives and readings for each class

which were handed out to students before each session. During the lecture session the questions he had outlined were discussed by the students in small groups. Towards the end of the lecture, groups reported back to the class as a whole then Schwartz as the lecturer discussed the correct answers In this way, the traditional role of the lecturer as the fount of all knowledge was replaced by a new role as the facilitator.

At the other end of the spectrum from the mass-learning techniques of lectures lie the individualised learning methods such as problem-based learning. Problem-based learning was tackled by Barrows (1986). He felt that the term problem-based learning covered a variety of methods. The importance of problem-based learning however was in its objectives which were to structure knowledge, to develop a clinical reasoning process, to develop effective self-directed learning skills and to increase motivation. It was therefore important for assessment methods to emphasise these skills and not just the recall of facts. Practical experience on the wards could be said to be the epitome of problem-based learning and most postgraduate medical education was based on practical experience.

For example, Goodenough (Interdepartmental Committee on Medical Schools, 1944) was in favour of practical experience. He felt that intensive refresher courses for general practitioners were merely a short term expedient and that in

the long term a better policy would be to bring general practitioners in to work as clinical assistants in hospitals.

The General Medical Council (Balla, 1989) recommended that in-service training was the best method of professional training at the postgraduate level. By in-service training they meant a combination of direct patient responsibility and formal education. In their document on the training of specialists too they emphasised the need for a balance between theoretical and practical training. (General Medical Council, 1986)

This pattern of combined theory and practice echoed the earliest scheme of postgraduate education undertaken by the local Committee which consisted of two complimentary programmes. The first enabled graduates to attend clinics, being responsible for a number of beds, while the second provided for special postgraduate classes. (Glasgow Postgraduate Medical Association, 1919)

The proliferation of lectures and practical experience in whatever combination did not preclude other methods from being utilised however. The Christchurch conference (Pickering, 1962) asserted the need for discussion centred around a patient, or a piece of research. Discussion between surgeons and physicians was deemed very important with a recommendation for more case conferences at which different specialists met to discuss a particular case.

Todd (Royal Commission on Medical Education, 1968) stressed that continuing medical education should involve not just formal courses but should take full advantage of the postgraduate medical education centres which offered a lively programme of meetings and other group activities.

A survey of the educational activities which took place in postgraduate medical education centres undertaken for the Green College seminar revealed a vast array of varying activities. These included symposiums, small group meetings, clinicopathological conferences, grand rounds, workshops and exhibitions. (Bayley, 1986)

One relatively new method of teaching in the clinical setting involves the use of simulated patients. In this scenario actors are trained to simulate some of the characteristics of real patients. Vu (1987) undertook a study to look into the consistency of such simulated patients. He was worried that their "performance" would change over time, thus negating their use as assessment tools. However the results of his study proved that if an individual is properly coached he can perform a simulation both accurately and consistently.

Aids

The use audio-visual technology (A-V) in teaching has often been seen as an alternative to the teacher. Page and

Kitching(1981) argued that this competition should not exist. A-V should be seen as "aids" not alternatives to teaching.

One of the main problems in the introduction of A-V to the classroom has been the attitude of the teacher towards the hardware. (Page and Kitching, 1981) Teachers are often willing to try something new as long as it doesn't disturb their pattern of teaching. For example, the overhead projector has been assimilated into teaching fairly easily because it is similar in its use to the blackboard. It is also cheap and easy to handle. Computers on the other hand have taken longer to be adopted.

The choice of A-V medium is very often made for the wrong reasons. (Page and Kitching, 1981) The teacher should ask, not which medium is most efficient, but rather which is most relevant in a particular circumstance. This is particularly true where a new innovation becomes popular because of its novelty. Houle(1980) warned of adopting such innovations enthusiastically without critical appraisal.

Brewer (1985) argued that the quality of education depends not on the hardware but on the software. In other words " the intellectual contribution put into the use of gadgets". Brewer (1985) described a system of instruction which she called SIMIG (self-instruction by modules; interaction among groups) which brought together an audio-tutorial system; self-paced and mastery learning; and small group discussion.

The introduction of A-V to postgraduate medical education has a relatively long history in the West of Scotland. In addition to the weekly clinical demonstrations which the Committee had run for some time, they decided to introduce a series of free lectures which would be illustrated by lantern slides, shown on a lantern slide projector borrowed from the local branch of the medico-chirurgical society. (Glasgow Postgraduate Medical Association, 1932)

The Committee was also willing to experiment with new technology to estimate its worth. For example, a joint venture with Scottish Television was undertaken to provide medical education broadcasts in the 1960s.

For continuing medical education, Todd (Royal Commission on Medical Education, 1968) recommended that greater use be made of the range of audio-visual technology now available and also by implication greater use of the medical library. The use of audio visual aids was also advocated by speakers at Green College to supplement and assist traditional teaching methods. (Peaston, 1986; Campbell, 1986)

The introduction of newer more highly sophisticated technology means that the individual teacher sometimes requires help in selecting and utilising these media. Recognising this need for help, the local Committee commissioned a report which recommended the establishment of

a regional teaching resource centre which would become a clearing house for information, would run courses on educational resources, would establish a library with viewing facilities and would provide advice. However, although the Committee looked at the concept favourably, it decided to establish such a centre only when it became opportune. (Western Regional Committee for Postgraduate Medical Education, 1973)

Twelve years later a resource centre for postgraduate medical education was indeed established in the West of Scotland. A library of medical education resources was developed and an on-line information system has been piloted with a view to offering such a service throughout Scotland.

SECTION FIVE

CONCLUSIONS AND RECOMMENDATIONS

CHAPTER FOURTEEN

CONCLUSIONS AND RECOMMENDATIONS

The preceding chapters have identified some of the major issues in postgraduate medical education today. In this final chapter I have made a selection from these issues, of five areas where I believe the problems are most pressing. The remaining problems can not be fully tackled until these principal issues have been fully addressed.

What is Postgraduate Medical Education?

What is postgraduate medical education? Is it the formal courses which are run for junior doctors working towards higher examinations and accreditation? Is it the complete period from pre-registration to consultant? Does it include continuing medical education? The concept of postgraduate medical education has evolved over the years but there have been few attempts to define it specifically.

This is a problem because in discussing postgraduate medical education, one must know and understand the subject under discussion. If there is ambiguity in the term and different people comprehend the term differently then any discussion becomes meaningless. This problem was identified by Rhodes (1980) who felt that postgraduate medical education was seeking an identity. One wonders whether he would agree

with the identity attributed to it by Flexner (1910) who submitted that postgraduate schools were nothing more than undergraduate repair shops!

There are several ways to go about the task of defining postgraduate medical education. Firstly I could split the term up into individual words and enter into a lengthy discussion on semantics. Secondly I could impose my own definition. Alternatively, I could search for previous definitions by other more eminent writers.

I have chosen to look at previous definitions because in that way I hope to get at the inferred meaning of the term by those actually working in the field. To discuss semantics is an admirable task but for a concept such as this, fairly meaningless. What is the point of knowing what a term "means" if that is not current usage in the field?

It is probably true to say that the concept of postgraduate medical education has changed since 1918. This appears to be borne out by the evidence which suggests a move initially from continuing medical education for general practitioners to formal postgraduate medical education courses.

The first definition of postgraduate medical education, chronologically, is that provided by Newman (1918) who stated quite simply that he was concerned with "the study of medicine after graduation". This is an interesting

definition because it implies not only education until the end of a doctor's life, but also ALL education, not just the formal courses which carry the title postgraduate medical education. Personally, I find this definition very important. It defines postgraduate medical education in the broadest of terms and this I believe is the correct view. There is a tendency to see education compartmentalised as something which only goes on as part of a formal tutorial or lecture. Education, by its very nature must be broader than that. Newman went on to amplify his definition by confirming the need for postgraduate study for all students and continuing medical education for all practitioners. In this way, he made the distinction which continues to be made today between education for trainees and education for those who have already qualified. More importantly however this definition confirms that if a graduate continues to be a student or trainee, then the undergraduate curriculum was not producing a finished doctor, even in 1918. What Newman called for was systematic postgraduate study after graduation.

Two years later, Athlone(Postgraduate Medical Committee, 1921) produced a report under terms of reference which specified "further education in medicine for practitioners and other graduates". The use of the term further is more ambiguous than postgraduate but, it could be argued, better reflects the meaning which Athlone wished to convey. Further education, a term more common in post-school

education, implies further to previous education and thus suggests that further education in medicine could come after either undergraduate or postgraduate medical education. In this way the term perhaps encompasses a larger concept than that of postgraduate but in so doing, creates further ambiguities.

The report by Greenwood (Ministry of Health, 1930) gave no specific definition of postgraduate medical education. Nevertheless, the discussion in the report implies that this report defined postgraduate medical education as consisting of three parts. These were firstly the education of post-graduates, secondly the continuing medical education of general practitioners and finally the education of overseas doctors who by that time were coming to the United Kingdom to further their medical education.

The implied definitions of the Greenwood report with their division of postgraduate medical education into three distinct units created, I would argue, a false view of the concept. In particular, the education of overseas doctors, should not be something separate from the education of British doctors. In creating a division of this kind, British postgraduate medical education could be accused of discrimination, although whether against the overseas doctors or against British doctors it is impossible to say without looking in more detail at the education provided in each case. This type of analysis is not the purpose of the

current study.

Nevertheless, why should the education of a general practitioner or a doctor from India be any different from that of young doctor intending to become a specialist? Certainly, the subjects of study may, and in some cases certainly will, be different. However, my point is that to discriminate over the purpose of education, implies a difference in quality and that is undoubtedly wrong.

It will be apparent that already, the definitions are beginning to emphasise formal medical education. This emphasis became overt in the definition provided by Goodenough (Interdepartmental Committee on Medical Schools, 1944). According to the report of the interdepartmental committee on medical schools postgraduate medical education "covers all forms of *organised* training and experience designed to advance the knowledge of those who are already registered medical practitioners. It includes arrangements for the training of medical practitioners who intend to become specialists as well as refresher courses for general practitioners and others." (my italics) The Goodenough report became such a watershed for medical education at all stages that this definition could be said to have shaped modern postgraduate medical education.

But, this definition also uses the phrase "training and experience" and this terminology will be discussed more fully

below. Postgraduate medical education has always been based on the apprenticeship model since the beginning of medicine and surgery as professions. However, what Goodenough meant in placing his emphasis on organised training and experience, was that the period of apprenticeship should not be spent acting as an extra pair of hands. In order to be educationally worthwhile, the period of training must have some order to it with a progression from watching a master craftsman to hands-on experience to mastery.

Goodenough also distinguished between the training of specialists and the continuing education of general practitioners. However,he implied not that they should be treated separately, but that neither should be forgotten.

At the Christchurch conference, dealing as it did with the organisation of modern postgraduate medical education and the setting up of the postgraduate centre movement, it was stated that "graduate or postgraduate education begins on qualification and in a formal sense ends when the doctor becomes an established scientist...[but] in fact education is terminated only by one event, namely intellectual death". (Pickering, 1962) In other words, postgraduate medical education includes both formal training and continuing medical education.

The next definition came from the report of the Scottish Postgraduate Medical Association. (1966) This report, dealing

only with Scotland, saw the postgraduate education of a doctor as involving "increasing experience combined with the interchange of ideas with his contemporaries, with teaching and criticism from his seniors and as he himself grows senior, with the close association with the ideas and work of his juniors." The report went on to specify that this should include all postgraduate training which should be continuous throughout a man's professional life.

This is another important definition. It recognises the importance not only of teaching and experience but also of "the interchange of ideas". This is the central tenet of the postgraduate centre movement. At the Christchurch conference, the need was emphasised for a dining room or other area where doctors from all specialties could meet, socialise and exchange ideas. (Pickering, 1962)

The Scottish Postgraduate Medical Association definition also embraces the French notion of "l'education permanente". In other words, education should continue throughout a doctor's professional life, and even beyond. It must not finish upon promotion to a consultant post, for it is only by continuing to learn that a doctor continues to be a professional.

Another report which does not provide a specific definition was the Todd report (Royal Commission on Medical Education, 1968). However, in the discussion the the report implies a split between postgraduate medical education for junior

doctors and continuing medical education for practitioners. Likewise, Merrison(Committee of Inquiry into the Regulation of the Medical Profession, 1975) did not define postgraduate medical education.

On the contrary, this report introduced new terms for certain periods of medical education. Merrison talked of specialist medical education which he saw as covering that period in a doctor's life from graduate to clinician. But, Merrison separated continuing medical education from this concept.

Finally, it could be considered logical that a report on the training of specialists should define postgraduate medical education as being from registration to independent practice and that is indeed the case for the General Medical Council report (General Medical Council, 1986).

These last few definitions which define postgraduate medical education in terms which exclude continuing medical education I find worrying. According to the Postgraduate Tutors' Handbook produced by the Scottish Council for Postgraduate Medical Education, continuing education is the process by which doctors keep up-to-date with advances in medicine and improve their practice. (Scottish Council for Postgraduate Medical Education, 1984) If that is the case, and I sincerely believe that it is, then why should this process not start immediately upon graduation instead of waiting perhaps fifteen years for independent practice. In that

time, advances in medicine may have moved so far that it becomes almost impossible to catch up. Continuing medical education should be an integral part of medical education THROUGHOUT a doctor's career. The undergraduate curriculum currently extends to five years, or six if one is to count the pre-registration year. By the time a young doctor registers with the General Medical Council, some of his knowledge will already be out of date. It is therefore imperative that a proportion of early postgraduate education covers not only specialised knowledge in a doctor's chosen specialty, but also advances in other branches of his profession.

I am not suggesting that a doctor can hope to know even a half of all the advances which are now taking place in medicine and its associated disciplines. However, in order to understand his own specialty, and to communicate and liaise effectively with colleagues in other fields, he must be aware of the major trends.

On a less serious note, Simpson proposed the cynic's definition of postgraduate medical education as "telling GPs about a lot of new laboratory tests which they cannot get done and a lot of diseases which neither they nor anyone else can treat." It is to be sincerely hoped that there is little truth in this particular definition.

Having reviewed the available definitions, this study has

been based on the definition provided by Newman in 1918, namely that postgraduate medical education is the study of medicine after graduation. I therefore include in my study all forms of education including formal and informal, education and training, experience and discussion relating to all specialties, all nationalities and all ages.

In addition I am taking the concept of "medicine" in its widest sense. If a doctor is very knowledgeable about the anatomy of the human body but cannot relate that anatomy for example to the anatomy of other animals or to the psychology of his patient then he cannot be said to be an educated doctor. Peters (1966) emphasised that a man (or woman) is not educated in one specific function such as anatomy. Education entails certain criteria in Peters' view which differentiate it from training or instruction or conditioning.

If we are truly going to talk about medical education then we need to look at a wider field than just medicine. Medicine must be related to the other fields of knowledge and to the rest of a doctors' life and experience in order to be true education. If that is not the case then we are working with the wrong terminology and this thesis should be about postgraduate medical training. That, I believe, is not the case.

To recap, the definition of postgraduate medical education

with which I am working in this thesis can be stated as "the study of medicine after graduation". Thus I have drawn the boundaries of time with graduation at one end and death at the other. On the other axis the subject of the study ranges from specialised knowledge of the brain through general physical sciences to the social issues which are of concern to medicine.

What Are The Aims of Postgraduate Medical Education?

> "The main difficulty in medical education is not what to teach or how to teach it, but to make up one's mind exactly what one is trying to produce." (Newman, 1918)

It could be argued that central to all the problems which have been identified in postgraduate medical education lies the central <u>why</u>. Why do we have postgraduate medical education? This is a question which is rarely asked and even more rarely answered. In most of the reports and documents relating to postgraduate medical education, the aims of postgraduate medical education are frequently taken for granted. It is assumed that the major aim of postgraduate medical education is to improve patient care. However, no-one asks whether this is a worthwhile aim or whether there are other aims. This point was of concern to Pickering

during the Christchurch conference in 1962. He felt that "...these committees (to define training requirements) were concerned rather with the maintenance or improvement of standards, and with certain technical questions, than with the broad questions of the purpose of postgraduate medical education and how this purpose is to be achieved."(Pickering, 1962)

For example are the aims of postgraduate medical education to educate doctors, or to indoctrinate doctors, or to keep doctors up-to-date or to keep doctors out of mischief? Some of these suggested aims may seem ludicrous but could they possibly be true? To take the question of indoctrination, most people would deny that they were trying to indoctrinate doctors. But, what about the hidden curriculum? What are doctors really learning from their postgraduate medical education? Certainly they are learning the ethics and professional discipline involved in being a member of the medical profession and one could argue that that in itself means indoctrination.

There is no lack of demand for the specification of the aims of postgraduate medical education. Rethans and McLachan (1967), in a review of the first five years of postgraduate medical education centres called for an analysis of the aims of postgraduate medical education. They felt that the lack of a central policy created uncertainty which in turn led to a lack of structure in this area.

In 1973, the Scottish Council for Postgraduate Medical Education commissioned a report on continuing medical education for general practice. This report stated that the aim of continuing medical education as agreed by the working party was to keep general practitioners up to date; to present them with the growing knowledge in medicine and to stimulate research. (Western Regional Committee for Postgraduate Medical Education, 1973)

Likewise, in the postgraduate tutors handbook, continuing medical education is seen as being aimed at helping the doctor to review his knowledge, skills and attitudes; discover his own deficiencies; recognise and apply new knowledge and ideas; and think constructively and objectively about his own work. (Scottish Council for Postgraduate Medical Education, 1984) It is interesting that these aims relate entirely to the individual doctor. No mention is made of the effect these improvements will have on the quality of patient care. These aims are reflected in the aims of professional continuing education set out by Jarvis (1984), namely to provide the opportunities for the practitioner to enhance his knowledge, skills and professional awareness.

This emphasis on the individual doctor is also reflected in the aims of general clinical training as laid down by the General Medical Council (1986). This grey area which is

neither true undergraduate nor true postgraduate medical education is seen as completing basic education and preparing the student for entry to his chosen specialty; giving general clinical experience under supervision; giving the student the opportunity to consolidate, apply and extend his knowledge and to continue to develop and refine his professional skills and attitudes.

In fact the only time the aim of postgraduate medical education is specifically stated as being to improve patient care is in 1986. (Bevan, 1986) This is important, because in published reports of evaluation on postgraduate medical education, the assumption has been that it should improve patient care. If that is not the case then the evaluation studies currently being carried outwill require to be changed.

In 1987, the third World Conference on Medical Education took place in Edinburgh. Out of this conference came what became known as the Edinburgh declaration on medical education. In this it was stated that the aim of medical education was to produce doctors who will promote the health of all people. This is a wider aim than that of Bevan and relates to every stage of medical education. The promotion of health implies not only care of patients, that is people who are already ill, but care of the whole community and the prevention of illness.

Jarvis (1984) questioned whether the aims of professional education were really to produce a competent practitioner, bearing in mind the fact that the assessment procedures rarely measured that competence. This is a different point. The relationship between aims and assessment will be discussed below. However, it is pertinent to point out that sometimes stated aims and observed aims may be at odds. The curriculum, assessment and evaluation in postgraduate medical education should evolve from the aims but perhaps this evolution is bi-directional.

Houle (1980) on the other hand suggested that the ultimate goal of education was improved performance and more importantly that the goals of professional education should be concerned with the entire process of professionalisation. This brings us back to the question of indoctrination.

According to Peters (1966) to ask for an aim is to ask for a more precise specification of what an action or activity is and by doing so, to clarify what one is trying to do. But at the same time, the word "aim" implies a target and thus something which one might fall short of. In the case of postgraduate medical education, specification of an aim or of several aims would make the activity more structured and coherent. In other words at the present time, without a specification of the aims of postgraduate medical education, then all the activities with which postgraduate medical education is related are aimless.

Later, I will suggest that without a specification of the aims of postgraduate medical education then no further work can be done on the curriculum, or assessment or on evaluation. The aim or aims of postgraduate medical education are a crucial question and one in urgent need of an answer.

As can be seen above there is a tendency to assume that the aim of postgraduate medical education is to improve the quality of patient care. If that assumption is correct then it must be stated categorically and the curriculum, assessment and evaluation of postgraduate medical education must be related directly to that aim. Likewise, if the aim is to increase the knowledge of doctors as some reports would suggest, then in the same way that aim should be reflected in the curriculum, assessment and evaluation procedures. There is another important reason for stipulating aims. If postgraduate medical education has no aims, or if the aims are not agreed by everybody involved, why do we have postgraduate medical education at all?

The Curriculum in Postgraduate Medical Education

There are several central questions which I believe need to be addressed regarding the curriculum in postgraduate medical education. Firstly, who should decide the curriculum? The General Medical Council, the Colleges, the Universities, the NHS, the doctors, the public? The list could be endless.

The answer to this question has important ramifications for the future pattern of postgraduate medical education. For example, if the curriculum was decided by the Colleges, then the emphasis might be placed on a very small core curriculum with increasing specialisation at an early stage. Alternatively, if the General Medical Council were to decide, then the core would be much larger and would emphasis transferrable skills and would put off specialisation until much later. A curriculum in which the public as the consumer had an input, might differ quite markedly from a curriculum controlled by the profession. For example the consumer might emphasise communication skills while the profession on the other hand placed the emphasis on the cognitive domain.

No matter who eventually makes the decision on a curriculum, there will always be those who will disagree. No subject or activity will have universal support, especially in medicine where every specialty imagines that its requirements are unique.

Disagreement on the content of the curriculum will be more heated, the more specific the prescription becomes. If a curriculum is decided centrally, this could mean anything from central control to central monitoring of standards. The control spectrum reflects the autonomy which the individual teacher will have over the curriculum. If a central body lays down very detailed descriptors for a

curriculum, the teacher has little room for flexibility whereas if that body merely suggests guidelines and standards the teacher retains the right to make certain decisions himself.

The second question which requires some thought concerns the core curriculum. Is there, or should there be a core curriculum and if there is what is it? There are two related issues here. Firstly there is the question of a broad-based education and secondly there is the question of transferable skills. These are not necessarily the same thing. It is commonly assumed that a broad-based education is a good thing. It allows a student to experience several different subjects before making the decision to specialise, it gives the student a broader view of his subject and how it fits into the larger frame and it provides a "liberal education". The transferability of skills on the other hand deals with skills and knowledge which are common to several specialties. These may constitute a very narrow curriculum.

The dilemma as Harden saw it lay in the nature of medical education. Is the aim of medical education to produce a professional or a technician? In the past medical education concentrated on general education at the expense of practical skills. This led to a situation where the argument for a general education was used as a "blank cheque" for including in the curriculum irrelevant subjects. However, today the

needle has swung in the opposite direction and the curriculum concentrates on obvious skills to the detriment of a broader education. A balance must be found which takes these extremes into account so that the doctor of the future can not only ask how, but also why! (Harden, 1985)

There are many arguments for a general curriculum. Squires (1987) identified three.These were : firstly a general curriculum provides the necessary foundation for further study; secondly if a student missed out on some areas of study then his education could be said to be incomplete and he may never know what he has missed; and thirdly, a disciplined exposure to different kinds of knowledge affects the way a student thinks. In other words a general education provides a different cultural background. These arguments are pertinent to postgraduate medical education. Many of the proponents for the continued inclusion of the basic sciences in the undergraduate curriculum believe that these sciences of anatomy, physiology and so on provide an essential grounding before the student comes to grips with the medical specialties. But equally, one could argue that a general curriculum should include not only the biological sciences but also the physical and behavioural sciences. A student whose whole education, from the age of 16 in some cases, is solely science-based could be said to be "missing out", to use Squires' term. Thus, experiments such as the literature and medicine elective (Calman et al., 1986) where students were encouraged to read something other than

medical textbooks, are just as important for curriculum research and design as any other topic.

This concept of "missing out" was also identified by Pickering (1967) who said " men and women who leave universities knowing nothing of the sciences or being unable to write their own language precisely and grammatically are not educated people in the true sense of the word. Half of the activities of the human mind remain closed to them."

Another telling argument in favour of a general education is that a general physician or surgeon with a special interest in a particular specialty may be a better teacher than a specialist because his attitude to that specialty will reveal the relationship between the specialty and the rest of medicine, thus making the subject more appealing to the student. (Poynter, 1966)

A general curriculum before specialisation also avoids the pitfalls of excessive demarcation in work duties. For example, in the case of nursing, there could be a conflict over who was trained to make beds and who to dispense medicines.

The concept of a core curriculum in postgraduate medical education is a relatively new one. It is intended to give all junior doctors a strong grounding in the knowledge and skills essential for any doctor. These include emergency

resuscitation, communication, teaching, audit and research techniques. But perhaps the major skill which a core curriculum should convey is the ability to continue to learn and to change one's practice according to changes in technology or policy.

The third and final question regarding the curriculum relates to the process of curriculum design and development. The curriculum in postgraduate medical education has often been haphazard and ill-defined. Whether we are talking about a short course of a few weeks or a training programme lasting several years, some thought must be given to its design. There are two major ways of designing a curriculum. The first relies on the specification of objectives while the second looks at the process of education. Neither method is totally correct or totally wrong. The design of any curriculum must be related to the aims. And thus we are brought back to the question above, what are the aims of postgraduate medical education?

Whatever one's view on the use or not of objectives, the central point to be made is surely that the curriculum is more than just a jumble of subjects. The curriculum by its very nature implies at least a modicum of planning to create a coherent whole. In order to plan the curriculum, whether for an hour, a week or a year, the curriculum planner must be aware of the constraints and pressures which will be exerted on the curriculum whether or not he takes account of them.

Without some thought to the environment in which the curriculum will take place, there is bound to be a difference between what is planned in theory and what occurs in reality. For example, a curriculum which calls for examples of a rare condition may be easily catered for in a large city teaching hospital or in a specialist clinic, but is less likely to be available in a district general hospital which may see this condition on average, once every three years.

The use of objectives provides a focus for discussion about the curriculum. They stipulate what is expected both of the teacher or material and of the student. Even Stenhouse (1975), who argued strongly against the use of objectives conceded their value if used intelligently and practically. In postgraduate medical education where the emphasis is on clinical competence and standards of patient care, objectives, if used properly, could provide a useful aid to designing more coherent curricula.

But as Hirst warned, it is too easy to allow an established syllabus to dominate the setting of objectives. Just because "we have always done this!" does not mean that it is automatically right. To develop or redesign a curriculum means going right back to basics, to the aims and working from that premise without the prejudice of previous practice.

Related to this question of designing the curriculum is a more fundamental question. Is postgraduate medical

education really education? It would be very easy to answer that of course it is education but there are other possible answers. For example is it training, or indoctrination, or conditioning? There is a habit in the literature of using the terms education and training in relation to medicine almost interchangeably. According to Calman and Downie (1988) there needs to be some differentiation in their use. Training can have overtones of manual, non-academic work while education suggests a more intellectual activity. This question too goes back to the same question, what are the aims of postgraduate medical education. For example, if the aim is to produce a surgeon who is a skilled technician then we are really talking about training. Whereas if the aim is to produce a surgeon who can relate to his patient in other ways then perhaps we are indeed talking about education. Querido (1987) dealt with a similar question when he asked if the aim of medical education was scientific or vocational. He suggested that there was a difference between the discipline and the practice of medicine and that we must be aware of this difference in any discussion on "medical" education.

Pickering explained the conflict in another way. He felt that in medical education there was a conflict between training the mind and training the body. (Pickering, 1967)

Squires(1987) quoted the recent change in the term teacher training to teacher education as an example of the

"subconscious desire to quell doubts over the professional and academic status of this field." It is certainly true that the terms education and training have a different status.

In general terms professional education is the transmission of the knowledge and norms of the profession to its new initiates. (Squires, 1987) This use of the term norms is interesting. Jarvis (1984) believed that if, in the process of professional education, attitudes are "moulded" then education becomes training or even indoctrination.

It has sometimes been said that to be educated is to be perpetually curious. On the other hand, doctors have been heard to say that they are "only a doctor" which might imply that they don't perceive themselves as educated. There is a common assumption that only students who pursue an arts degree are educated while others are "trained" for a vocation.

However, the terms may not be mutually exclusive. The central precept of medical education is learning by doing. It is argued that formal courses are no substitute for clinical experience, however, that experience must be subsumed into a doctor's prior knowledge. It cannot stand in isolation. Porritt (1962) suggested that to possess specialised knowledge and skill without an adequate general foundation would inevitably turn the doctor into a technician.

The Problems of Assessment

Many of the problems in postgraduate medical education relate to assessment. For example, the membership and fellowship examinations are uncoordinated, badly timed, have high failure rates and provide no feedback to students. Apart from these examinations there is little attempt made to assess trainees at what they are actually being trained in.

Solutions to the many problems of assessment are not easy to find. Whatever solutions are proposed, there are so many influences on the curriculum and assessment procedures that conflict is inevitable. There are many possible solutions for individual problems but nothing so far has tackled the whole picture. For example diagnostic assessment would provide feedback to students or continuous assessment might improve the timing of examinations. However tinkering like this does not tackle the real problem of lack coordination between examining and accrediting bodies.

It could be argued that in many respects the position of assessment in postgraduate medical education is similar to the position of provision and assessment of educational opportunities for the 16-18 age group in Scotland ten years ago. The solution which was proposed for that problem, I would argue is also applicable in this situation. (Scottish Education Department, 1983)

In the early eighties provision for the 16-18 group lacked coherence and continuity with the preceding school provision. There were a large number of institutions providing education and an equally large number offering examinations. Sixteen-year olds were therefore faced with a bewildering choice of options. An expansion in this sector without a related review meant that there was no clear coordinated plan of action.

Essentially there were two distinct sectors, one providing broad education and the other providing vocational training. These two sectors had different aims and it was recognised that in order to coordinate the system then the aims of these two sectors would need to be reconciled.

What was required was a curriculum which was general in scope, but allowed for choice and for specific targets. The action plan identified what they called clusters of aims. These were

1. the development of knowledge and understanding of oneself, of the community and of the environment
2. the development of intellectual, practical, physical, interpersonal, social and vocational skills
3. the development of attitudes, values and motives

It was felt that what was required was a new educational framework which would take account of student's needs, would reflect today's occupational requirements, and would provide

a sound base on which to build for the later acquisition or updating of skills and knowledge. The action plan therefore recommended a framework which they believed would meet these criteria.

What was proposed involved a restructuring of the curriculum components to provide improved progression together with freedom of movement; the establishment of clear entry points; the simplification of certification on a national basis and the effective and efficient use of resources. The action plan recommended the design of curriculum modules which would be sufficiently flexible to be built into individual educational programmes in a variety of ways. In this way individual modules would be available to a wider variety of users and new courses could be assembled from existing components. It was suggested that this new framework should not lead to a dramatic change in the overall content of existing courses.

The action plan proposed that a general module could be at the same time a part of a mainstream linear course, an element required to service other disciplines, an optional component related to mainstream activities and an opportunity for the student to develop personal interests.

On the practical side, the modules were to be of 40 hours in length, making them suitable for both full-time and part-time study. They were to be flexible to allow for adaptation to

local needs and conditions and they were to incorporate specific objectives. The design of each module was to take into consideration its relation to other modules thus ensuring explicit progression between modules and also transferability between modules.

The modular set-up would ensure a greater variety of entry and exit points and most importantly, certification would be streamlined with only one certificate recording the attainment of a student in each module. In addition, the system would allow for ease of upgrading or retraining.
On the question of assessment procedures, the action plan felt that these should reflect the curriculum structure and objectives. Therefore assessment too should be modular, and should be criterion-referenced to the specified objectives.

In conclusion, the action plan suggested that the modular structure provided greater flexibility and movement within the system; negotiation of individual programmes of study; greater scope for guidance and counselling; unconstrained attendance modes; credit-transfer between institutions; valid assessment and a single certificate. If these claims are correct then assuredly, this system could solve many of the problems in postgraduate medical education.

If one looks more closely at the two problems then many parallels emerge. There are a large number of institutions in postgraduate medical education. The hospitals, the

universities, the regional committees and commercial organisations provide education and training while the colleges and faculties, the universities and the joint higher training committees provide examination and accreditation. Current courses and training programmes are designed to meet specific specialty needs for example the courses for the MRCP or the rotations for higher specialty training in surgery. It is therefore difficult to move between courses or programmes, separate courses are designed without regard for common content and components of a course are not generally available separately.

As was discussed in a previous chapter, conflict exists between the opposing claims of education and training. A structure which would reconcile these would be a great advantage.

The aims of postgraduate medical education have been discussed above but they could just as easily be grouped into clusters similar to those for the action plan. For example it would be true to say that one of the aims of postgraduate medical education was the development of attitudes and values in keeping with the profession of medicine.

Thus, I would suggest, postgraduate medical education can lay claim to many of the same problems which beset 16-18 provision. How then, does the solution fit?

The action plan recommended a restructuring of the curriculum into modular components which could be combined to provide a coordinated training programme. Postgraduate medical education is an area which is ideal for this type of structure. In fact the vocational training scheme for general practitioners could be said to have moved some way down the modular road already. Trainees elect either to join established training programmes or to construct their own programmes consisting of a series of six and twelve month appointments to create a three year course. Unlike the action plan however, no specific objectives are laid down for each component and assessment is therefore not closely related to the components.

In a fully modular system, junior doctors on completion of their pre-registration year would select a series of modules which taken together produced a training programme which was individual to their needs while meeting the criteria laiddown by the relevant accrediting body. These modules could be training posts, formal courses, research, work abroad, or even work outside medicine for example in the social work service. As with the action plan, there would be a set length for a module and trainees could elect to run two, three or even four modules together to make a year in a single post if required.

The Colleges, Faculties and joint higher training committees

would stipulate core and optional modules which they would recognise for training in their particular specialty. Thus to look again at the vocational training scheme, this might stipulate four modules in a training practice, and at least six modules in hospital specialties with the remaining two as options relevant to the individual trainee's interests. This might be research or occupational health or voluntary service overseas for example.

A modular system would have several advantages over the current system. Firstly trainees who had not decided on a specific career could take two or three modules in topics of interest to them then later, having made their decision, these modules would count towards their training programme and would not be wasted. Secondly, by rationalising the common aspects of training, a great deal of duplication of effort could be avoided. General modules in accident and emergency or communication skills for example would be relevant to almost every specialty. Thirdly trainees would not be penalised for so-called unorthodox training and would thus be encouraged to take up the chance of wide experience particularly overseas. This is in keeping with the recommendations of the Todd report.(Royal Commission on Medical Education, 1968) Finally, as Merrison pointed out, specialties are not equal and therefore there is no apparent need for equivalence of standards. (Committee of Inquiry into the Regulation of the Medical Profession, 1975) With a modular structure those specialties which require a longer

training would fit into the system easily.

To implement a system of this nature would not be easy however. Major obstacles would be raised by the colleges and by the NHS. The Colleges guard their control over specialty training jealously and previous attempts to implement some form of pluripotential training have failed for this reason. The Colleges believe that their training is unique and can not possibly be the same as that of the other specialties. The Colleges would therefore need to be consulted at every stage in the design and development of modules.

The other major problem is one of staffing. As has been discussed above, there is an inherent conflict in the health service between the need to staff the service and the need to train the staff. If postgraduate medical education were to move to a modular structure, then this would have ramifications for the staffing of hospitals and for the contracts of doctors. However, the recommendations of Hayhoe and Shaw suggest a solution to this problem. They proposed that contracts for junior staff be held not at hospital level, thus requiring a change in contract every six months or so, but at regional level so allowing a junior doctor to rotate from post to post within a region without the need to change his employment contract. If we were to take this argument a step further, contracts for all junior staff in Scotland could be held at national level, thus allowing even greater movement.

On the question of assessment procedures, again we should turn to the action plan. Module descriptors would stipulate objectives and content together with assessment methods. These might be formal examinations or continuous assessment; OSCEs or MEQs; or a combination of methods. However, whatever methods were selected they should be criterion-referenced. In other words, levels of expected attainment would be stipulated for each objective. The certificate of attainment would then also stipulate the skills, knowledge and attitudes attained in some detail allowing potential employers to make informed decisions and allowing trainees to recognise strengths and rectify deficiencies.

Validation would be an urgent question. Each module would be validated for content, objectives and assessment. This would ensure a maintenance of standards throughout the country. A proposed module which did not meet all the criteria for validation would not be recognised for any training purposes.

If after completing his training, a doctor then wished to update his skills or to retrain for a new area then this too could be incorporated into the modular structure. For example a general practitioner could take a module of obstetrics or community medicine to add to his certificate. Bearing in mind the current proposals for the postgraduate

education allowance, certain modules could be accredited for this purpose.

Modular systems of education are not a new phenomenon. The MEd degree at the University of Glasgow is itself a modular programme with students selecting eight modules in consultation with the department. Certain programmes are mapped out, for example an MEd in curriculum studies or in adult education, but students are free, if they prefer to create their own programme. Certain modules are however obligatory.Lately, the MEd programme has been undertaken not just by teachers, but also by community education workers, librarians, doctors and nurses.

A modular structure in postgraduate medical education would encourage interprofessional education in the same way. Certain modules could be offered which were of equal value to doctors, nurses, physiotherapists or dentists. This could only be of value in encouraging interprofessional relations.

Evaluation

To complete the cycle, postgraduate medical education must think more clearly about evaluation. Again, this goes back to the question of the aims of postgraduate medical education. One cannot evaluate a programme until one knows what one is trying to achieve. Certainly there are those

who will always test education against their own implicit criteria, for example did it keep me awake?; did I learn anything I didn't know before?; was it a good lunch? and so on. These criteria may well be valid on a personal level.

At a regional level however we should be looking at evaluation in broader terms. What is postgraduate medical education trying to achieve? And equally what is it achieving without explicitly trying to do so? If the aim of postgraduate medical education is to improve the quality of patient care, then our evaluation should be attempting to ascertain if we are succeeding. If however, the aim of postgraduate medical education is to keep doctors up to date, then the evaluation will measure something very different.

Whatever the aims of postgraduate medical education, evaluation should not be an end in itself. It is now common for course organisers to administer questionnaires at the end of their course asking for participant comments on such things as content, presentation and relevance. What happens to these questionnaires? In a true educational technology cycle the data collected would be used to analyse and improve the course the next time round. Too often in postgraduate medical education the data is used for self-congratulation about how well the course went down with the "chaps" and a dissenting voice is put down to awkwardness.

If postgraduate medical education is to be looked at as a legitimate activity then the postgraduate medical educators must become more professional in their attitudes and methods. Postgraduate medical education is not something that can be tackled in an odd moment when one has nothing better to do. If the aims of postgraduate medical education are specified and agreed then it deserves the kind of planning which would be accorded other activities with similar aims. Evaluation is a part of that planning. To assume that a course of lectures or a tutorial or a tape-slide programme will do what it was designed to do without making any effort to measure its effectiveness and try to improve its value next time around is to consign postgraduate medical education forever as an extra in medicine rather than an integral part of the profession of medicine.

The concept of evaluation in postgraduate medical education is not however as new as some may think. Lister (1986) suggested that to judge the success of a postgraduate centre one must look at the effect the centre was having on active postgraduate medical education and on the standard of medical care. He warned against judging the centre by its grandeur and facilities rather than by the quality of its academic programme. However, Lister also identified limiting factors to the success of a centre. These included lack of time, plethora of meetings and exhaustion of goodwill.

There are many published studies of so-called evaluation of

postgraduate medical education interventions. Evered studied 51 such studies and concluded that most were valueless. His reasons for this conclusion were the lack of objective analyses and control data in the majority of studies. If clinical studies or drug trials were conducted on the same basis as some of the evaluation studies they would not merit publication far less serious attention.

Recommendations

In the above paragraphs I have commented on some of the major issues in postgraduate medical education as I see them. They are a personal selection, and other researchers might disagree with my choice. However, I believe these issues are central to the continued development and improvement of postgraduate medical education both locally and nationally. They identify the problems which are apparent in postgraduate medical education in this country today. But, as has been demonstrated, many of the problems are not new. However, previous attempts at their solution have failed. This may be due to various factors, but I believe a major cause is the lack of research and of discussion on these issues. Far from reaching an answer to some of the problems, the postgraduate medical education organisation has not yet fully entered the debate.

The recommendations which I propose below are not panaceas, nor will they be easy to achieve. However, I make them in

an attempt to offer a personal solution to some of the many problems besetting postgraduate medical education in Britain today. They should be used not as statements of intent but as the starting point for discussion. Even if at the end of the day, these recommendations are rejected categorically, if they have been fully debated and considered before being rejected then they will have served their purpose.

However, I am not suggesting that there is nothing right about postgraduate medical education. There are also many success stories, particularly at a local level, but also on a national level. I believe that the British system of national and regional postgraduate committees provides an excellent organisational structure for postgraduate medical education in this country. The regional committees in particular represent all interests within the region and perhaps more importantly are seen by the local doctors as relevant to their needs. Decisions are not taken, on the whole, by faceless bureaucrats in London but by colleagues who will have canvassed local opinion on important matters. It is gratifying to acknowledge that Glasgow and the West of Scotland were well ahead of their time in creating a regional committee structure as long ago as 1914.

The training of general practice trainees is also a success story and one from which the hospital specialties could learn. Training takes place on a one-to-one basis and each trainer in his turn has attended training sessions before being allowed to train. Attention is paid not only to the

ability to teach but also to standards of practice. Thus, a general practice trainee is introduced to the best of practice.

The postgraduate centres have made a major contribution to postgraduate medical education in this country. In the last twenty-five years they have grown from humble beginnings. Today the range of educational activities provided by these centres is broad and diverse. The postgraduate tutor's role has also grown to one of "educational director" in each district. In the same way the role of the postgraduate centre administrator has grown to a point where she is the central figure within the centre without whom, chaos would reign.

Postgraduate medical education in the United Kingdom stands at a crossroads. Decisions must be taken regarding the status of education in the health service of the future. That status is dependent upon a professional attitude to the organisation and planning of postgraduate medical education. The following recommendations reflect the need for such a professional attitude.

Local Recommendations

1.1 Curriculum planning in postgraduate medical education should be improved. Objectives should be specified for courses and for training programmes in order that these

programmes have, and are seen to have a sense of purpose.

1.2 Assessment methods should be reviewed as a matter of some urgency. In the past assessment has been used in the main as a selection tool. Its value as a diagnostic tool should be recognised and seized upon in order to improve the training of junior doctors.

1.3 Evaluation should become a central part of the education process and not an added extra, included as an afterthought. And by implication, if evaluation is to be tackled in a more professional manner, its results should be taken into consideration in the planning of new courses and in the improvement of existing ones.

National Recommendations

2.1 Continuing medical education should become an integral part of every doctor's activities throughout his professional life. This requires that the philosophy of "l'education permanente" is instilled in students at the undergraduate phase. By the time a doctor graduates from University, his professional attitudes have already been formed and a genuine desire to continue learning MUST be among these attitudes.

2.2 The aims of postgraduate medical education require explicit definition. Without this definition, other development will flounder through lack of direction.

2.3 The question of modular education and assessment should be investigated for its viability. The current disjointed system of hospital training programmes and college examinations is long overdue for overhaul. A system which coordinates education and assessment can only be of benefit both to trainees and to the health service.

2.4 The place of a "liberal" education for medicine must be explored in greater depth. This is a current issue which is also being discussed in other educational fields (e.g. legal education; secondary education). The time is therefore ripe for the cross-fertilisation of ideas between different sectors.

2.5 Related to 2.4 above is the question of a core curriculum. Some writers have called for the pluripotentiality of some training. This concept must be fully researched to gauge its viability and more importantly to identify the core.

2.6 A national agreement should be reached regarding the vocabulary of postgraduate medical education. Much of the misunderstanding and confusion which arises does so because of the number of different terms used to express the same concept.

GLOSSARY

Basic Medical Education : the undergraduate medical course

Basic Specialist Training : the first years of training after registration

The Colleges : a collective term used in this thesis to denote The Royal Colleges and Faculties of medicine and its specialties

The Committee : a collective term used in this thesis to denote the various local postgraduate medical education committees in the West of Scotland

General clinical training : a period of practical experience in hospitals before a new graduate becomes registered with the General Medical Council

General Professional Training : see Basic Specialist Training

Higher Specialist Training : the final period of training before accreditation as a specialist, normally at Senior Registrar level

Internship : see General clinical training

Pre-Registration year : see General clinical training

Registrar : the middle training grade marking the beginning of specialist training

Registration : registration with the General Medical Council as a qualified doctor having passed the necessary examinations

Section 63 : Section 63 of the Public Health Act (1964) which provided money for the continuing medical education of general practitioners. From 1st April 1990 this will be superceded by the postgraduate education allowance.

Senior House Officer: the first training grade after registration

Senior Registrar : the final training grade before appointment to a consultant post, normally lasting 4-5 years

Specialist Registration : see Vocational Registration

Insurance practitioners : General practitioners before the introduction of the NHS

Vocational Registration : registraion with the General Medical Council as a competent specialist in a chosen speicalty after several years in training

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