comfortable journey to hospital may be delayed until shock has been controlled and the patient's condition improved. Furthermore, skilled medical personnel are better able to consider an injury as affecting the whole body physically and emotionally and to instil calm and confidence into a situation of potential chaos.

The Role of the General Practitioner

Doctors and their assistants should form group emergency services with good communications, adequate transport, and close liaison with the police and rescue services. By joint consultation they should establish agreed courses of instruction and standardize equipment for ambulances and first-aid centres, possibly with some variation depending on local needs. Furthermore, it would be of great service to the community if, when called to an accident, doctors could—after giving priority treatment to the injured—study the accident itself, its causes and results. This should be done not so much from the mechanics of the accident and the legal aspects of responsibility, which is primarily a police duty, but from the human and medical angles of those concerned. Much more needs to be known about accident proneness, risk acceptance, and the personal, environmental, and chance factors involved. Such investigations will contribute to accident prevention, and a follow-up of the patient's progress will establish the efficacy or otherwise of the first-aid treatment given.

The Teacher

Ideally the general practitioner should be taught to teach, but there is no substitute for a sound knowledge of the subject and an enthusiasm to pass on that knowledge to others. Very many visual and practical teaching aids are available and should be used, particularly in practical periods, but these cannot replace the personality of the teacher. Patient planning and preparation, even for separate lectures on the same subject, are essential. Finally, there is nothing better than first-hand experience for gaining skill and knowledge. To achieve this it will be necessary to persuade the emergency services to take trainees along with their calls and let them also assist at hospital casualty departments.

First-aid in the Future

What has been written already is no more than a proposal to spread a minimum of first-aid instruction throughout a community which badly needs it—a "crash course" on a national scale. In the future such knowledge must be acquired in school as an essential part of training for citizenship in a country where accidental injury and illness are common occurrences. In other words, progressive instruction in simple human science, first-aid, rescue, and survival techniques should be provided. A select committee of doctors and educationists should be formed without delay to study what is already being done in this direction in schools, colleges, and universities, and make recommendations for future action.

Programme for Specialization in Family Medicine

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Summary: A programme for specialized training in family medicine at Tel Aviv University Medical School provides four years of postgraduate study, two of which are in recognized hospital departments and two in clinics recognized for training in family medicine. At the end of this four-year period the graduate must submit a thesis of original work or an approved research project on an aspect of family medicine. Continuing contact of the trainee with both the family medicine clinic and the hospital departments is maintained throughout the period. While in hospital the trainee spends half a day a week in the family clinic with his personal tutor, and when in the clinic he spends half a day a week in the hospital.

This programme has been provisionally accepted as meeting the formal requirements of the Israel Medical Association for specialization in family medicine, and the first physician has started training.

Introduction

In many countries there has been a resurgence of interest in family- and community-orientated health services, stemming from the physicians themselves and from the general popula-

tion, who are beginning to recognize and demand their rights to good medical care. An interesting concomitant phenomenon has been the growing demand of American medical students for more community-based teaching services.

All recently published reports emphasize the need for a "primary physician" (American Medical Association, 1966) or a "family physician" (Royal Commission on Medical Education, 1968). Nevertheless it has been predicted that the demise of the individual practitioner (Royal Commission on Medical Education, 1968) will result in his replacement by a more specialized family physician. He will be a member of a group practice or the leader and co-ordinator of a multi-professional team of health workers, maintaining close contact with a hospital. "A primary care team rather than a primary care man is needed" (Anderson, 1969).

Parallel to this has been the realization that medical school education must be linked very closely to the objectives of the community health services. The interrelated triad of research, education, and medical care (service) must be co-ordinated if the tremendous advances in medicine and related sciences are to reach the general population in a rapid, efficient, and humane manner.

For some years now (Britain started experimenting in 1948) (Horder, 1968) a great deal of attention has been paid to the improvement of the standards of practising physicians and to vocational training or specialization courses (World Health Organization, 1963 ; Royal College of General Practitioners, 1965, 1967a, 1967b). Certain parts of the world, such as Yugo-

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slavia, and now the United States, have higher degrees in general medicine or practice. Medical schools can no longer remain indifferent to this trend. Those schools that do not as yet include departments in family or general or comprehensive medicine based on services in the community will have to provide such teaching programmes in their undergraduate curricula. In the future they will also have to accept increasing responsibility for the planning and supervision of programmes culminating in a postgraduate degree in family medicine.

In Israel, where family practice is a recognized specialty, the Scientific Council of the Medical Association has laid down certain guidelines with which the programme of training for specialization must conform. The programme for specialized graduate training in family medicine proposed by the department of Family Medicine of the Tel Aviv University Medical School was accepted by the chairman of the Scientific Council as complying with the Medical Association's guidelines (World Health Organization, 1963). The first junior doctor began this programme in February 1969.

Because of the growing importance accorded to this aspect of medical education, particularly in Great Britain, it was thought that the publication of this programme would interest those physicians and medical schools engaged in the post-graduate training of family physicians and lead to a further cross-pollination of ideas.

The Programme

The year of compulsory internship before graduation must include, among other things, one month in each of the "minor" specialties, such as ophthalmology, dermatology, and diseases of the ear, nose, and throat.

1st Year Residence in Family Medicine Clinic

(1) Assistant to a recognized family physician at a recognized clinic throughout the year. This will be at a clinic which has been granted the status of a teaching clinic and should be affiliated to a department of family medicine.

(2) Psychiatric and mental health aspects of family medicine, on a part-time basis during three to four months of this year at a recognized day hospital, outpatient service, or mental health clinic.

(3) Study of the basic sciences of family medicine (see next section) for five hours a week throughout the year.

2nd Year Residence in Hospital

(1) Internal medicine in a recognized hospital ward throughout the year.

(2) Continuation of the study of the basic sciences of family medicine for five hours a week throughout the year.

(3) Attendance at the family medicine clinic, or at the department of family medicine of the University Medical School, once a week for half a day throughout the year.

3rd Year Residence in Hospital

(1) Paediatrics in the ward and outpatient department of a recognized hospital for a period of six months.

(2) Casualty department of a recognized hospital for three months.

(3) Long-term illness and rehabilitation for six weeks.

(4) Obstetrics and gynaecology for six weeks.

(5) Continuation of the study of the basic sciences of family medicine for five hours a week throughout the year.

(6) Continuation of the attendance at the family medicine clinic or at the department of family medicine of the university medical school once a week for half a day throughout the year.

4th Year Assistantship in Clinic or Health Centre

(1) Responsibility for the care of a limited number of families, with the guidance of a recognized family physician, as a junior physician in a group practice throughout the year.

(2) A thesis of original work—a research project on an aspect of family medicine approved by the university department is prepared during this year.

(3) Contact with the hospital is maintained through working sessions of half a day twice a week in an elective ward or outpatient department throughout the year.

Outline of Basic Science Course

(1) *Molecular biology*, including microbiology, virology, and immunology (75 hours).

(2) *Genetics* (75 hours).

(3) *Behavioural Sciences*—sociology, anthropology, and psychology (100 hours).

(4) *Statistics and Research Methods* (75 hours).

(5) *Community Health* (social and preventive aspects): includes epidemiology, mental health, health education, maternal and child care, nutrition, occupational health, geriatrics, organization of medical care, etc. (150 hours).

(6) *Clinically Orientated Individual-in-Family Medicine* (225 hours) includes (a) interview techniques, counselling (genetic, marriage guidance, family) and screening methods for early recognition of disease; (b) comprehensive individual and family diagnosis and treatment; (c) recent advances in diagnosis and treatment of common conditions met with in primary medical care; (d) emergencies and crises—diagnosis and treatment; (e) specific situations and family pathology at various stages of the family life cycle; (f) principles and practice of team-work; (g) recent advances in medical electronics and computers and their implications for family medicine; (h) clinical biochemistry, electrocardiography, etc.; (i) medical ethics.

Discussion

The objectives of the first year are to inculcate the basic principles of primary medical care in its diagnostic, preventive, curative, and rehabilitative aspects before the continuation of hospital training. The graduate is assigned to a recognized family physician, who acts as his tutor and is responsible for ensuring the implementation of these objectives. He helps in the work of the practice, and accompanies his tutor on hospital visits, case conferences, team meetings, and consultations. Some of the teaching clinics have a family-orientated service provided by a paediatrician and an adult physician, both attending to the same group of families. Were the graduate assigned to this type of clinic, he would also be attached to the paediatrician in order to gain experience in the maternal and child aspects of primary medical care.

The psychiatric and mental health aspects of family medicine are taught on a part-time basis over three months or more, depending on the individual needs of the graduate, at a recognized day hospital, outpatient service, or mental health clinic, in the form of a planned programme of practice and theory. The basic sciences of family medicine are taught for five hours during afternoon or evening sessions once or twice a week throughout the year. This part of the programme consists of lectures, symposia, and formal studies provided mainly by Tel

Aviv University (undergraduate and postgraduate faculties) over three trimesters; in the future this will probably be done by the Hebrew University in Jerusalem as well.

Hospital training in the second year is planned with a somewhat different emphasis and content from that of doctors specializing in hospital-orientated specialties. To ensure a broader-based training, the first six months will be spent in a general internal medicine ward, with all the night and emergency duties of other residents. During the second half of this year experience is also provided in some of the more important subspecialties which have their own hospital units, such as cardiology, gastroenterology, diabetes, hypertension, and renal disease. Regular contact is maintained with the family-physician tutor by attendance and participation at the clinic once a week for half a day. Study of the basic sciences of family medicine continues for five hours a week throughout this year as before.

The objectives of the first half of the third year are to provide ward and outpatient experience in the diagnosis and treatment of illness and in the physiological and pathological developmental processes of children, infants, and neonates. During the second half of this year training is provided in the diagnosis and treatment of acute conditions and of emergency cases in the casualty department over three months. The management of long-term illnesses and their functional assessment and rehabilitation are taught during a six-week period in a suitable ward of a general hospital specializing in these aspects. As almost all obstetrics in Israel is restricted to hospitals where the family physician seldom has professional access, the emphasis during the six weeks' training in this subject is placed on antenatal and postnatal care, family planning, the management of emergencies, and routine gynaecological procedures. During this year, also, continuous contact is maintained with the family physician tutor once a week for half a day, the graduate participating in the clinic's programme of medical care. Studies of the basic sciences of family medicine are again continued for five hours a week as before, throughout this year.

The objectives of the fourth year are to give the graduate responsibility for the care of a limited number of families by his appointment as junior physician in a joint or group practice. Alternatively, he may be responsible for a panel of his own patients, but with a senior physician available in the area for consultation and advice if necessary. The size of his patient panel is such as to enable him to work productively and yet be able to prepare material for his thesis or research project. The submission of this thesis or research project on an approved aspect of family medicine and its acceptance by the university represents the completion of his formal requirements for specialization in family medicine. We feel that the successful completion of this programme warrants the awarding of a higher degree in family medicine.

The general principles of this programme are:

- (1) A four-year course of training following internship, almost equally divided between family practice and hospital posts.
- (2) Throughout the four years the resident maintains contact with his main family practice tutor (while in hospital he spends a half-day a week in practice) as well as with the hospital departments (while in practice spends half-days in hospital).

(3) The basic courses needed to supplement his clinical work are provided by the basic science course, which gives him more than 600 hours over a three-year period.

(4) In the final year he is also expected to carry out a research project on a subject associated with general practice (under the guidance of a senior member of the department of family medicine).

(5) Remuneration: this question is an important one and for the moment has been solved by awarding the resident a scholarship which pays him a salary like any other resident of similar seniority in a hospital.

(6) The above scholarship has very important implications in that it allows the resident to be over and above the establishment of the hospital department or practice, thus preventing his exploitation as a work-horse and allowing him reasonable opportunities for learning.

(7) The university department of family practice plays an important part in the planning and supervision of all stages of the training programme.

There are many and varied problems inherent in a programme of this multiplicity. Among these are: the quality and facilities of the teaching practices; the quality of the practice tutors and the time necessary for them to spend with the residents; and co-operation and identification with the objects of the programme by the hospital and other departments; etc.

We do not have ready-made answers for any of these problems, but the good will and co-operation of everybody concerned is a good augury that with experience we may find some satisfactory solutions.

Thanks are due to the senior members of our department for their constructive criticism of the programme and to those individuals whose understanding, co-operation, and encouragement led to the finalization of the programme. These include Professor S. Gitter (Dean of Medical Undergraduate Faculty), Professor S. Schor (Dean Postgraduate School), Professor H. Milwidsky (Chairman of Scientific Council of Medical Association), Professor A. de Vries (Rector of University and Department of Internal Medicine), Professor F. Brüll (Psychiatry Department, Tel Aviv), and, last but not least, Dr. H. Doron (Medical Director of the Sick Fund of the General Federation of Labour, which also kindly provided a four-year scholarship for the first participant in the course).

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