The off-duty arrangements of general practitioners in four European countries*

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SUMMARY. Continuity of care has been regarded as an essential feature of good general practice. It may be jeopardised by many diverse factors such as the mobility of the population, a shortage of family doctors, and by some forms of group practice. A shorter working week which many doctors enjoy or anticipate is another threat to continuity as it increases the time off duty and leads to the frequent use of rotas and deputising services.

Criticism of the off-duty arrangements of family doctors has been made not only in the United Kingdom, but also elsewhere in Northern Europe. A study of the systems used or planned in four different countries is described and compared with some of the deputising arrangements commonly used in the United Kingdom.

Research is required to elucidate whether continuity is fundamental to good medical care and how it can be achieved, bearing in mind the needs of both patient and doctor.

Introduction

The Report of The Joint Working Party on the General Medical Services in the United Kingdom examined the off-duty entitlement of doctors:

"The pattern of life has altered significantly and few would now demand as of right that 'their' doctor should always be available. Indeed, no such right exists . . . It must be accepted that any doctor in general practice, or indeed in any other form of clinical practice, must have some deputising arrangement. The problem is not whether such arrangements should exist, but how they can be organised in the way least harmful to continuity of care." (Department of Health and Social Security, 1974a).

Continuity of care and the off-duty of the doctor are in direct opposition to each other. Yet doctors must have or obtain a working week which is not too different from that of the society in which they live. They need weekends and holidays, and the time for postgraduate study. Like other members of the community they cannot escape episodes of illness when of necessity they must hand over the responsibility of their patients to a colleague.

Various forms of deputising service have developed in order to satisfy the off-duty requirements of doctors, but these have been the subject of adverse criticism in a study of complaints against doctors in England and Wales (Klein, 1973), in a recent television programme in Denmark, as well as in articles by a sociologist in a Dutch medical journal (Zee, 1973, 1974).

Because of the problems raised by doctors' off-duty arrangements which are common to all health systems in a free society, I visited Denmark, Norway, Sweden and the Netherlands.

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Aim

The first objective was to obtain some basic data about the different systems of primary care.

To ascertain the number of doctors providing primary medical care to the population at risk proved difficult because only in the Netherlands, Denmark, and Great Britain do some or all of the patients have to register with a general practitioner (table 1).

TABLE 1

NUMBER OF PRACTISING DOCTORS AND ESTIMATE OF THOSE IN PRIMARY MEDICAL CARE

Country	*All doctors*	*Primary medical care*
Denmark	8,200 (1973)	2,100 (1971)
Norway	5,720 (1973)	1,333 (1972)
Sweden	13,050 (1973)	1,200 (1973)
Netherlands	18,142 (1973)	4,559 (1973)
Britain (England & Wales)	66,000 (1973)	23,965 (1973)

The necessity or otherwise for registration and the presence or absence of medical records which automatically follow the patient from doctor to doctor both have an effect on continuity of care (table 2).

TABLE 2

REGISTRATION OF PATIENTS—MEDICAL RECORDS

Country	*Do patients have to register with a general practitioner?*	*For how long?*	*Medical records*	
			National system	*Transfer doctor to doctor*
Denmark	Class 1 (80%) yes Class 2 (20%) no	1 year —	No No	On request On request
Norway	No	—	No	On request
Sweden	No	—	No	On request
Netherlands	Sick fund patients (70%) yes Private patients (30%) no	As long as desired by doctor or patient	—	—
Gt. Britain	Yes (within the National Health Service)	As long as desired by doctor or patient	Yes	Yes

TABLE 3

GENERAL PRACTITIONERS—PERSONAL RESPONSIBILITY

Country	*Hours of work*	*For deputies*	*For provision of deputies*
Denmark	0800–1600 hrs	No	No
Norway	0800–1600 hrs	No	No
Sweden	0800–1600 hrs	No	No
Netherlands	Not defined	Yes	Yes
Gt. Britain	Not defined	Yes	Yes

Hours of work

The shorter the working day and the larger the number of patients for whom a doctor is responsible, the harder it is to accommodate into the system all the needs, as opposed to the wants, of the patients and the greater the tendency for demand to spill over into the evening hours. Whether a doctor who has accepted, in one way or another, the responsibility for providing care for his patients is liable for their care outside working hours, personally or through his deputy, can been seen in table 3.

Consultations and home visits

The frequency with which patients consult their general practitioners varies. In Denmark it averages six a year (Juul, 1972), in Great Britain the range is from 2·9–5·9 (Royal College of General Practitioners, 1973), and in Norway 3·7 is the estimated norm. There is some evidence that the larger the practice the smaller is the annual consultation rate (Royal College of General Practitioners, 1972).

In all the countries concerned, home visits have fallen to such an extent that they make up only a small proportion of a doctor's work, perhaps six per cent (Juul, 1972) while in Norway and Sweden the amount of visiting is negligible.

Content of general practice

Although the content of the work which is undertaken by general practitioners has been defined, there are considerable variations in the scope of work they perform, not only in the different countries, but also within the countries themselves.

In trying to make off-duty arrangements the deputy wishes to know whether he is expected to embark on home visits, attend confinements, or be responsible for coping with minor accidents and emergencies.

Other facets of the care of patients, which may or may not be accepted as part of general practice, but which are relevant if a locum is needed to cover absence through sickness or holiday, include well-baby clinics, developmental assessment, immunisations, school health examinations, and contraceptive care. In Scandinavia some of these features of primary care are commonly dealt with by generalist/specialists or the hospital rather than the general practitioner.

DEPUTISING ARRANGEMENTS IN THE COUNTRIES VISITED

Denmark

The first country to be visited was Denmark. The pattern of general practice has many differences from that in the United Kingdom. For example in Copenhagen the doctors are paid on a capitation basis which is intended to cover work undertaken during the normal 40 hour week. Elsewhere in Denmark the capitation fee is 50 per cent lower, being supplemented by item-of-service payments. Requests for visits have to be accepted up to 0900 hours, but no later unless the doctor desires. As far as consultations are concerned an open surgery has to be provided for an hour per day, and one such session must be held after 1600 hours at least once a week.

It follows that some system of off-duty cover is essential between 1600 and 0800 hours on weekdays and throughout the weekend. Hornum and Poulsen (1971) have described the off-duty arrangements in 14 regions of the country. Approximately 530 young doctors act as deputies for the 868 general practitioners who are collectively responsible for 2.32 million inhabitants. These junior doctors undertake three to four spells of duty per month, each of which involves working between three and 24 hours at a stretch. Some of these duty rota systems have access to shortwave radio and cars with professional drivers.

Copenhagen Central Deputising Service (population 900,000)

To visit a patient after 0900 hours produces no financial advantage to the general practitioner nor is there any financial penalty in passing on any calls to the non-profit making deputising service, the Laegevagt. This service began in 1938 to cover evenings, nights, Sundays, and bank holidays but now operates on a 24-hour basis (Backer *et al.* 1968, 1972). It is used by virtually all the Copenhagen general practitioners. At a busy time of year the service will receive 800–1,000 calls in a day and at weekends as many as 700–800 calls at night. For convenience the city is divided into districts served by a variable number of doctors and radio-controlled taxis according to the estimated work-load (table 4). Either the general practitioner or the patient may summon the service, the telephone number—0041—being found easily in the fly-leaf of the telephone directory.

TABLE 4

COPENHAGEN CENTRAL EMERGENCY SERVICE

Time	*Number of doctors and taxis available*
0800–1200 hours	6
1200–1600 hours	8
1600–2000 hours	12
2000–0100 hours	10
0100–0800 hours	4

The staff used are drawn almost entirely from junior hospital doctors who have a contract with the Copenhagen Medical Association. As the supply of doctors is plentiful, competition is keen, only about ten per cent of the applicants being successful. No specific training is required or given.

Patients are given first aid only. Medical cases are treated whenever possible while surgical cases are referred to the emergency room at the nearest hospital.

The service

An evening spent with a duty doctor was informative. His postgraduate experience consisted of three years in general medicine, eight months surgery/accident, four months in paediatrics, but none in general practice. The taxi-driver knew the city well. He received calls via a radio-telephone, mapped out the route, giving only serious cases any priority. Brief clinical notes of each patient were made and forwarded to the patient's general practitioner.

TABLE 5

COPENHAGEN CENTRAL EMRGENCY SERVICE FEES PAID TO THE DOCTOR PER VISIT

Time	*Danish krone*
0800–1600 hours	23
1600–2400 hours	80
2400–0800 hours	100

£1 sterling = 12·50 Danish krone

The period of duty was officially from 1600 to 2000 hours, but owing to the volume of work the session lasted until 2130. Twenty-seven calls were undertaken. The doctor worked fast and continuously. While satisfying the patient's physical needs there was no time to establish any real rapport.

The fees for the services of the deputising doctor are totally reimbursed by the Health Service for 80 per cent of the population, the remaining 20 per cent with higher incomes paying part of the bill. The extra earnings obtained by these young doctors cannot be received by the general practitioner himself who has already been remunerated by a capitation fee. The deputising doctors are responsible for providing their own equipment and drugs, though the latter can be obtained free of charge.

In Glostrup, a suburb of Copenhagen, it is customary for medical students to man the telephone and the duty doctors to use their own cars, without any radio-telephone linkage. The population is normally cared for by 25 general practitioners during the day. The deputising service functions from 1600 to 0800 hours, five doctors being on duty during that time and on average they make 15 domiciliary visits per night.

The service in Roskilde is restricted to the same hours. There the telephone is answered by a general practitioner and for this reason only 65 per cent of the calls received result in a visit, which would be undertaken by junior hospital doctors. Other patients may be advised to come to the doctor's premises (Hornum and Poulsen, 1971).

Norway

There are about 1,333 general practitioners, about 23 per cent of all the doctors in the country. About 400, known as district doctors, are also involved in public health work (Borchgrevink, 1970). It is estimated that in 1972 there was one general practitioner for every 2,942 inhabitants, but it is difficult to be precise owing to the absence of registration.

While there is a shortage of new entrants to general practice in the cities there is no such shortage of applicants for the work of district doctors in rural areas. The reason given is that the work is more varied and interesting and the population stable. " We feel we do the work for which we have been trained, and at the same time we have the pleasure of knowing our patients." I looked at deputising services in Bergen and Oslo.

Bergen (population 213,660)

Bergen is the second largest city in Norway. Primary medical care is provided by 40 general practitioners, most of whom have had some additional specialist training. They normally work from 0800 or 0900 to 1500 or 1600 hours on weekdays, though the district doctors in the more remote areas work longer hours and spend about 20 per cent of their time on public health.

In the city itself and the immediate surroundings general practitioners have several ways of off-loading their work:

(1) *Legevakt or first aid station.* Situated in the city centre, divorced from the hospital and general practice, this centre is open 24 hours a day, seven days a week. It has a staff of seven full-time doctors under a senior surgeon assisted by some research and junior hospital doctors together with receptionists, nurses, and a radiographer, treating allcomers on a " walk-in " basis. The range of cases varies from medical illnesses and trivial trauma to the less serious fractures. Except in the cases of accident and emergency a charge is made for the service.

(2) *Children.* In the past the standard of general practice in Bergen is said to have been low so there is an out-of-hours service for children between 1700 and 2300 hours.

It is run on a rota basis by the paediatricians and their junior staff. Parents can take their children direct to the hospital. Between 20 and 60 children are treated each night.

A deputising service is organised by the County Medical Officer in co-operation with the local medical association. It is designed to cater for home visits from 1800 to 0700 hours on weekdays and throughout weekends. The doctors taking part in this service have varied experience in general practice ranging from several years to a six month attachment to a district doctor. All services are given outside their ordinary working hours and duties at the hospital or elsewhere.

TABLE 6

BERGEN AND DISTRICT DEPUTISING SERVICE, HORDALAND, NORWAY. WORKLOAD, AND MANPOWER, The shifts work from 1800–2100, 2100–2400, 2400–0800 hours.

District	*Population*	*Number of doctors on duty*	*Average number of calls per night*
Central Bergen	88,500	2	20
Fyllingsdaleh & Laksevåg	46,600	1	6–8
Åsane & Ytre Arna	31,000	1	6–8
Fana-Trengereid	55,000	1	10–12

They work in shifts from 1800 to 2100 hours, 2100 to 2400 hours, 2400 hours to 0800, the general practitioners themselves often being responsible for the 2400–0800 hours shift.

The majority of the general practitioners use the service nightly, every weekend, and during holidays.

The following charges are made to the patient:

Home visit 56 N.Kr* refund to patient 36 N.Kr

Night visit 18 N.Kr* refund to patient 13 N.Kr

* £1 = 11.50 N.Kr

Oslo (population 480,000)

There are two emergency centres, one open for 24 hours per day, and the other for 12. They are staffed in the main by specialists and research workers and, as in Bergen, they deal with a wide variety of medical cases and trauma. The centres are independent of the hospitals and general practice, and there is no communication with the patient's own doctor. The majority of the users are walking patients, but some arrive by ambulance or taxi. If the latter, the duty doctor may authorise payment from public funds provided he considers such transport was justified on clinical grounds. The medical service is free.

Some details of the Red Cross Emergency Clinic are of interest. There is a regular staff of five specialists, each working 21 hours a week at the clinic, but free to work in private practice for the rest of the time. There are also two registrars working on a rota basis, each being employed for approximately 40 hours per week.

Tables 7 and 8 give samples of the range of work treated at the clinic. As a supplement to the accident and emergency centres there is a limited out-of-hours service for domiciliary visits, staffed mainly by junior hospital doctors.

TABLE 7
EMERGENCY ATTENDANCES, RED CROSS CLINIC, OSLO (1973)

Number of patients attending for:	
1 consultation	33,091
2 consultations	11,637
3 consultations	6,210
Further consultations	10,311
Total number of consultations	61,249
Admitted to hospital–693 patients	

TABLE 8
RED CROSS EMERGENCY WARD, OSLO
Samples from the range of clinical work treated in 1973

Groups of diseases and diagnosis	*Number of cases*	*Groups of diseases and diagnosis*	*Number of cases*
I *Infectious*		VIII *Respiratory*	
Gastroenteritis	99	Tonsillitis	487
Pertussis	11	Influenza	57
Herpes zoster	94	Bronchitis	91
Rubella	10	Asthma	36
Measles	10		
II *Neoplasms*		IX *Digestive*	
All cases	218	Gastric & duodenal ulcer	21
		Appendicitis	92
		Strangulated hernia	40
V *Nervous disease*		Constipation	67
Neurosis	61		
VI *Nervous system & sense organs*		X *Genito-urinary*	
Conjunctivitis	1,055	Cystitis	294
Otitis media	633	Hyperplasia of prostate	29
		Salpingitis	47
		Menstrual abnormalities	79
VII *Cardiovascular*		Abortion	24
Myocardial infarction	37		
Cerebrovascular accident	11		
Haemorrhoids	123		
Phlebitis	101		

From Annual Report 1973, Den Norske Laegeforening (Emergency Ward, Red Cross Clinic, Oslo, 1973).

Sweden

This large country, like Norway, has a population (8,242,000) that is unevenly distributed with a density of population which varies from 150 to three per sq mile, with an average of 52 (or 20 inhabitants/km^2). The higher density is concentrated in the southern third of the country.

The County Councils are responsible for the planning and provision of services in their own areas and in the past resources have been strongly directed towards hospitals, with successive increases in the number of beds available for hospital medical treatment (Meer, 1973).

Primary medical care areas are divided into districts served by one or more medical officers (distriktsläkare), the trend being towards larger districts in which two or more physicians work as a group from a health centre. There are about 1,000 such medical

officers who with 250 specialists provide primary care from 750 centres (Federation of Swedish County Councils, 1971).

All registered doctors in Sweden are paid by salary, the scale being the same for those working in the hospital or in the community, with only a few exceptions. Like other workers, they have a basic 40-hour week, though a further ten hours of overtime is commonplace for which there is additional remuneration. For any work in excess of 50 hours it is customary to take further leave rather than any more payment.

Stockholm Deputising Service (population 1,486,583)

The doctors taking part in the service must have completed three years in hospital medicine. They work from a base which is staffed by three nurses. Four different telephone lines are used, one of which, 90 000, is well-known to the public.

Special taxis clearly marked Läkare (doctor) are provided, each equipped with a radio-telephone. The number of cars and doctors available varies according to the season and the time of day (table 9).

TABLE 9
STOCKHOLM DEPUTISING SERVICE
NUMBER OF DOCTORS ON DUTY, CALLS FOR ADVICE AND VISITS—1973

Hours	*Number of doctors /cars*	*Calls*	*Per cent*	*Visits*	*Per cent*
0700–1300 hrs.	4–5	6,798	*8·5*	4,716	*6·3*
1300–1900 hrs.	4–5	35,805	*44·7*	24,422	*32·7*
1900–0100 hrs.	3	25,412	*31·7*	25,507	*34·2*
0100–0700 hrs.	2	12,090	*15·1*	20,009	*26·8*
Total		80,105	*100·0*	74,654	*100·0*

Each doctor works a six hour shift undertaking about 15 visits during that time. For such a service the patient pays 20 S.Kr (about £2·20) and this fee is supplemented by a further 31 S.Kr (£3·41) from the County Council.

The 1973 statistics give some idea of the volume of work undertaken (table 10). From the preliminary returns for 1974 it is clear that there will be a further substantial increase in the demands for the service, which is run jointly by the Stockholm County Council and the Swedish Medical Association.

TABLE 10
STOCKHOLM DEPUTISING SERVICE—WORKLOAD

	1972	*1973*
In-coming & out-going telephone calls	390,681	532,067
Total number of visits undertaken		
Stockholm central	64,153	74,654
Stockholm county	30,443	45,366
Total	94,596	120,020

*£1 = 9·08 S.Kr.

The service in operation

A consultant paediatric orthopaedic surgeon kindly allowed me to accompany him on his visiting round from 1900 to 2200 hours, during which time nine cases were seen, all of which fell within the competence of a general practitioner.

Tierp

Tierp is a small town of 22,000 people, 132km from Stockholm. The health centre has been built to serve the needs of the locality which has been divided into five districts.

Each of the staff of five general practitioners serves a district with a nurse/health visitor, a social worker and home help. Also working at the health centre are doctors who have had specialist training in internal medicine, obstetrics and gynaecology, plus three junior doctors.

The normal working day at the centre is from 0800–1600 hours. Emergency cases occurring during the day are conveyed to the centre by private car, taxi or ambulance and treated by the duty doctor for the day. Out of hours a doctor and nurse remain on call at the centre until 0800 hours the next morning.

Home visits are rarely undertaken, but there is a proposal that the primary health care team should make one day a week available for routine visiting within their own district.

The Netherlands

As in Great Britain, patients are registered with a doctor if they are entitled to sick fund benefits, which is true of 70 per cent of the population who earn below a certain income. The general practitioners are paid a capitation fee by the sick fund while private patients have to pay 11 N.fl (£1=5.55 N.fl) for a consultation and 16.50 N.fl for a home visit.

The range of services offered by general practitioners is much the same as in Great Britain. Minor accidents are more likely to be treated by the rural practitioner than the urban. As for obstetric care, the number of hospital deliveries has now increased to 40 per cent. Of the 60 per cent which still take place at home, the general practitioner attends over half the deliveries in person.

The general practitioners have no set working hours, but it is customary for them to remain on duty until 1800 hours. Informal rotas are arranged among themselves to cover off-duty, holidays, and weekends, when they either transfer their telephone calls to a colleague, make use of an 'Ansaphone', or continue to receive telephone calls, agreeing to see some patients, e.g. maternity or private cases, but advising others to ring up the duty doctor.

Deputising Service—The Hague (population 550,000)

Primary medical care is normally provided for the population of The Hague by 190–200 general practitioners during daylight hours. To cover night work the doctors have organised a deputising scheme amongst themselves; an extension of one started during the war. It is based on the Westeinde Hospital where the accommodation consists of one common room, with telephones and radio transmitter, and two examination rooms. The service functions from 1900 to 0700 hours on weekdays and at weekends:

TABLE 11

THE HAGUE DEPUTISING SERVICE—NUMBER OF DOCTORS ON DUTY

1900 to 0100 hours	4 doctors on duty	2 answer telephone. 2 visit patients in defined zones, using a taxi equipped with a radio telephone.
0100 to 0700 hours	3 doctors on duty	2 remain awake, while 1 sleeps in the building.

By operating in this way each general practitioner is on duty once in 3½ weeks. About 60 per cent of the calls received do not lead to a visit, but this figure varies with the attitude of the doctor answering the telephone. On average there are 100 telephone calls each night, with some increase in the summer months owing to the number of visitors.

Every night about 10–15 ambulatory patients are seen at the hospital itself. Patients examined, either there or in the home, are given a brief report which either they or a relative are requested to take to their own doctor the next day.

During the 3½ hours that it was possible to watch the service in action, nine people were seen in their homes.

The cost of the service is borne by the general practitioners themselves, the only reimbursement being the fees charged to private patients (47 N.fl per visit). Every sick fund patient is attended free of charge.

Some of the additional information gained about off-duty arrangements is of interest. Single-handed doctors commonly use 'Ansaphones', primarily to advise their patients how to contact the duty doctor. It is a customary courtesy amongst Dutch general practitioners that if, there are patients who are seriously ill, the duty doctor is advised by telephone in advance. In return the duty doctor usually telephones his colleagues about the patients he has seen the next morning or after the weekend. General practitioners also make use of a "bleeping" system when on call. The equipment used has a radius of eight miles and enables doctors to have a short conversation with base. Part of the cost of this apparatus comes from the sick funds.

Groningen

The literature on off-duty arrangements is scarce, but a study has been made of the weekend service in Groningen (Meer, 1973) comparing two groups of general practitioners, each group's arrangements being studied for five weekends.

A group of seven doctors was responsible for 18,000 people, one doctor being on duty from 0900 on Saturday to 0800 hours on Monday morning. Another group of five doctors covered 14,000 people from 1000 hours on Saturdays to midnight on Sundays.

The mean number of services, both visits and consultations, was remarkably similar, namely 1·51 and 1·43 per 1,000 patients. The proportion of visits to consultations was two to one. Although only one group was committed to the provision of obstetric care, none was requested during the weekend studied.

Two thirds of the patients needing attention were under 30 years of age with a high proportion of women, but of this group the number of cases classified as urgent was lower than in the elderly, whose overall demands were surprisingly low.

From the study it was shown that:

(1) Large practices produce an absolutely and relatively larger amount of work per weekend.

(2) The number of unnecessary calls is about ten per cent.

(3) The high visiting rate (70 per cent) is an argument in favour of regionalising the service.

(4) The range of illness seen was wide.

(5) There were few night calls.

(6) Most of the general practitioners who were off duty referred their patients to the service via an 'Ansaphone'.

I believe that the number of services given by each doctor must not be so large that the quality of care is in jeopardy. If one general practitioner is on duty for 36 or 48 hours, I suggest that his average workload should not exceed three services per hour. Assuming an eight-hour working day and an average of 1·45 items of service per 1,000 patients, it is concluded that the maximum size of the weekend group should be 30,000 with a preference for 15–20,000 to take into account weekends of heavy demand.

Great Britain

Traditionally in Great Britain, single-handed doctors or groups of general practitioners have covered their off-duty on a " knock-for-knock " basis.

In the last 20 years group practices have developed. By 1972 only 18.3 per cent of general practitioners in England were single-handed, and 35 per cent of practices contained three or more partners (Department of Health and Social Security, 1974b). Rotas are commonplace within groups, and two or three groups may join together to make a larger rota, though no optimum size has ever been determined which can be shown to cope with demand both in terms of quantity and quality.

Rotas may be confined to nights only, commonly from 1900 to 0700 hours, or include half-days and weekends.

Whenever possible telephone calls are transferred to the duty doctor by an arrangement with the telephone exchange, but this can prove difficult if several exchanges are involved. Some doctors make use of radio telephones, but their use is not so widespread as in The Netherlands.

Deputising services

The off-duty of a general practitioner can be covered by contracting the work out to an established deputising service, the majority of which are to be found in the more densely populated areas. More often than not these organisations operate on a commercial basis.

The first deputising service began in London in 1956 (Williams and Knowelden, 1974). They have now spread to many other cities and conurbations so that over 30 such services are in existence in England, Wales, and Scotland. Whereas at first a population of 400,000 was considered essential before a service could be made commercially viable, smaller populations of 150,000 and 50–60 doctors have been shown to be workable, so that smaller towns can now be covered, sometimes including semi-rural areas.

Although they have to seek approval from their Family Practitioner Committee (formerly Executive Council until 31 March 1974), which may impose limitations, by October 1972, 28 per cent of general practitioners in England and Wales were using the services for which permission had been given by nearly 50 per cent of the Councils.

Selection of deputies

Those who appoint doctors to work in deputising services are looking for experience in general practice or the accident and emergency services. Many of the doctors employed are working for higher medical or surgical degrees.

In the Sheffield study (Williams *et al.* 1973) an analysis was made of the doctor's background and the percentage of consultations which each group undertook:

Type of doctor	*Percentage of consultations*
Hospital doctors	*66%*
Full-time deputising doctors	*20%*
General practitioners	*11%*
Switchboard staff (nurses)	*3%*

The bulk of the calls in Sheffield were shown to come in between 1800 and 2300 hours with a progressive decrease for the rest of the night, though at weekends the service was busy from lunch time on Saturdays and from 0800 on Sundays until midnight.

Official complaints about deputising services are not frequent, but may arise because, for example, the patient is faced with an unknown doctor whose visit may be brief and sometimes delayed. On the other hand, deputising services often give 100 per cent response to a request for a home visit which cannot be said for all cases when the general practitioner himself, or a colleague in a rota are responsible.

Discussion

Generalist or specialist

In 1957, when the future of general practice was uncertain, Hunt (1972) gave his celebrated lecture entitled *The Renaissance of General Practice* in which he defined the work of the general practitioner. His definition has been echoed (Kapteijn *et al.* 1972) and extended so that a picture emerges of a doctor " giving primary and continuing medical care to individuals and families and accepting the responsibility of making an initial decision on every problem that his patient may present to him, consulting the specialist when he thinks it appropriate to do so ".

Others, such as McKeown (1965) have doubted if this traditional approach to general practice is still tenable or even desirable, maintaining that in future it will be desirable for all doctors to specialise.

While partial specialisation of the doctors providing primary care is commonplace in Norway and Sweden, it is less so in Denmark, the Netherlands, and in Great Britain, though here one or two experiments on McKeown lines are in progress. Expressions like " continuing responsibility " and " making an initial decision on every problem that his patient may present to him " are phrases which are often quoted as being the hallmarks of a good general practitioner. Always assuming that such contentions are valid, such phrases may become meaningless in the last quarter of this century.

Recruitment in general practice

In Bergen and Oslo, cities in which the general practitioner finds it easy to off-load his work, there is a paucity of recruits to primary medical care. It is also in the large cities of Denmark, Norway and Sweden that home visiting has become a rarity, unless the patient likes to wait until 1600 hours and then summon the emergency doctor service.

If the professional, social, and economic forces which operate in large cities are factors which discourage doctors from embarking on a career of general practice, there is also the impression that the currency of general practice is more highly valued elsewhere. Other factors, which are counter-productive to good general practice and job-satisfaction, are the mobility of the population, an absence of patient registration, and a national medical records system. It has been said that it is just as undesirable that a doctor should attempt to provide 24-hour cover daily in person as that he should delegate all out-of-hours cover to another doctor (Department of Health and Social Security, 1974a). Of necessity this viewpoint is accepted in every country that was visited, but there were many differing solutions to the way such cover should be provided.

Type of service

A home visit was the commonest way of answering an out-of-hours call either for a serious or trivial illness. In some places it was almost the only means of persuading some doctor or other to enter the house. When such a service operates on a 24-hour basis at

a relatively small cost to the patient and no financial loss to the doctor providing primary care, the demand increases at a rapid and uncontrollable rate (table 10).

When a consulting service is offered as an alternative patients have to be transported by one means or another to a centre, the cost of such transport in some instances being borne by the Health Service or its equivalent. More seriously ill patients are taken direct to hospital by ambulance, often without any medical intervention.

Operating hours of the deputising service

When it is available for 24 hours a day it is tantamount to the provision of a duplicate service, uneconomic in manpower as well as in revenue.

Source of doctors

If the primary care services which are available in Scandinavia for 40 hours a week, and during more traditional hours in the Netherlands and Great Britain, could cope with the reasonable demands of the patient, the marginal overspill of urgent cases into the evening hours and weekends might reasonably be dealt with by doctors whose main duties lie in hospital and research. But when the service is coping with a substantial excess of demand which cannot be accommodated in the hours during which the primary medical care services operate we do not have a situation, as White (1974) might wish " to answer genuine emergency calls and not to treat exacerbations of long-standing diseases which are already being treated by the general practitioners ", but a bizarre situation where doctors who are, or should be, trained for primary care are responsible for the patient for about a third of the week while those trained for other disciplines take over primary care for the remainder.

Vocational training for general practice

In the past few years organised training has developed quickly in the United Kingdom, Denmark, and the Netherlands, and there is considerable movement in this direction in Norway and Sweden. If general practice is to remain and develop as a specialty in its own right it is reasonable to expect that such doctors should continue to take on the whole responsibility for primary medical care on a collective basis.

Recruitment

An upsurge of interest in general practice was found in all the countries visited. The continuing relationship which develops between a particular doctor and an individual patient, and the holistic approach to medical care, are both attractive to doctors and to socially-minded medical students, an increasing number of whom express an interest in general practice (McLaughlin and Parkhouse, 1972). This development is healthy for primary care whereas an intake of " failed specialists " or the dumping of a surplus of medical manpower into general practice are inappropriate methods of recruitment.

Threats to patient care

The re-birth of general practice and the interdependence of the patient and the general practitioner are both threatened by many factors including:

(1) The mobility of the population.
(2) The absence of registration with a specific doctor. Without it, only a third of the patients in Dalby, Sweden, persistently consulted one doctor in spite of encouragement to do so.
(3) The lack of a national medical record system, in spite of the poor quality of many such records (Kuenssberg, 1968; Cormack, 1970; Dawes, 1972).
(4) The mobility and mortality of doctors themselves (Cartwright, 1967).
(5) Misuse of the health care team and appointments systems.
(6) Absence of home visiting.

The independence of the general practitioner

The treasured independence of general practitioners could prove a fundamental weakness to the continuance of primary medical care if such care can be given just as well by doctors in other specialties. It has been said that " if a large proportion of practitioners continue to practise with few identifiable goals then it may well be that their jobs will be eroded to such an extent that the public will look elsewhere for what has hitherto been accepted as the essential elements of primary medical care " (Office of Health Economics, 1974). If the objectives of general practice are not clear and achievable there is no certainty of an increase in recruitment, rather a danger that " the kingpin of the whole of the National Health Service " (Hunt, 1972) will become the weak link.

Job satisfaction is the greatest stimulant to recruitment, but the stripping from general practice of many of its interesting facets will certainly not help manpower in big cities, in spite of the presence of deputising services or open-door accident and emergency clinics.

Forward planning

Owing to the shortage of general practitioners in Oslo, it was of great interest to discuss with the city's Chief Medical Officer the possible future of primary medical care (Oslo Kommune, 1974). In the plans for the next 15 to 20 years, it is envisaged that the city will be divided up into health districts, the district doctor being responsible for a defined population of 3,000 patients, with a public health nurse, and a social worker. While each district doctor will be responsible for his own catchment area, patients would be allowed to select similar doctors in other districts if they so desired, and if the doctor was agreeable.

Premises in the form of health centres could be shared with other primary health care teams from a few adjacent districts and would be open from 0800 to 2000 hours or even 2200. The range of work would include diagnosis and treatment, antenatal care, contraceptive care, the provision of child health and school health services, and personal preventive health, and education. The centre would also serve as a focus from which patients could obtain simple health information, thus narrowing the gap between the patients' knowledge and that of the medical and allied professions.

All minor medical and surgical emergencies during working hours would be dealt with, and an out-of-hours emergency service would be provided by junior hospital doctors based on the centre. They would refer back to the district doctor the clinical data about any cases attended.

Conclusion

The general practitioner has been given a defined role (Royal College of General Practitioners, 1972; Hunt, 1972; Kapteijn *et al.*, 1972) for which various forms of vocational training are being developed. It is by no means clear whether this role is fully accepted by doctors working in the primary care field. Nor is there any consensus of opinion as to the optimum size of population for which he and other members of the health care team can be responsible, taking into account the range of service to be provided. If the manpower: population ratio in the primary care field is not well balanced, there will be an overspill of routine work into the evening hours and weekends. The overspill is substantial when doctors work a 40-hour week.

Additional payment is already being made in one way or another to doctors who undertake out-of-hours work. No evidence was forthcoming to suggest that there is an advantage in such doctors being hospital or research based.

Research is needed to identify which models of out-of-hours care satisfy the needs

of both patient, doctor, and para-medical staff. The indications from this study are that three such models are likely to satisfy close scrutiny:

(1) Rota systems within partnerships,

(2) Extended rota systems, e.g. Woodside Health Centre, Glasgow (Harden, 1973).

(3) The proposals for Oslo.

Research may provide an answer to the dilemma facing the general practitioner, namely the conflict between his own aspirations for his private life and his traditional concern with the quality of care given to an individual patient. It is too soon to contemplate a uniform solution applicable to all the countries concerned, but the way we individually or collectively solve the problems of the out-of-hours service of the general practitioner will strike at the very heart of the future of primary medical care.

Meanwhile, in our research, as Dr Candau has said so ably " We must have the courage and the skill to go to the consumer and put questions to him as to his needs and problems and we must find out what are the conditions or factors that determine the possible solutions." (WHO, 1972).

To be acceptable, any solution will have to cover 24 hours a day, 365 days a year, the whole needs of the individual patient, the future of general practice, and the lives of those attracted to the commonest and most rewarding branch of medicine.

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CRITERIA FOR CONSULTANT STATUS

In the context of the criteria that Council recently revised and published in the *Annals* in October 1974 (vol. 55, p. 205) it has become clear that in many specialties there is an increasing dearth of adequately trained applicants for vacant posts. In these circumstances it is very tempting for appointment committees to wish to accept the best, or in some cases the only, applicant available, regardless of the College's criteria.

Council wishes all Fellows, whether they serve on appointment committees as local or as College representatives, to be aware of the College's determination not to allow standards to be eroded by the appointment of surgeons who have not been fully trained. The attention of Fellows is therefore drawn to the following additional comments on the published Criteria:

(1) Where appropriate, advisory appointments committees should be advised to require that, before taking up his consultant post, an applicant who is acceptable in other ways should complete a further period of senior registrar training in order to fulfil the stated criteria.

(2) Appointing authorities, if they seek to overrule the advice of College assessors on the eligibility of a particular candidate, should be warned that the College and the Joint Committee on Higher Surgical Training may have to withdraw recognition from training posts supervised by newly appointed consultants who do not themselves meet the College's training criteria.

Finally, College assessors are again reminded of their duty to inform the President immediately of any proposal to appoint a candidate who does not, in their opinion, meet the relevant criteria, even after making such allowances as are within the discretion of the assessor. In certain circumstances action of this sort may enable the advice of the committee to be set aside.

A similar situation exists in relation to consultant appointments in anaesthetics, about which the Dean has written to Faculty assessors.

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