DOMICILIARY GENERAL PRACTICE IN PREVENTION AND TREATMENT OF ILLNESS

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Fifty years and more ago the farming community was prevented by bad roads and poor communications from travelling far from home. The local market town might be visited once a week in good weather only. In times of sickness the doctor generally went out to the patients, and a wide range of procedures were performed with a high standard of skill in their homes. In spite of keeping a number of horses, the doctor's area was limited to that over which he could travel in bad weather.

Better roads, motor-cars, and public transport have opened up the countryside and widened the range of travel for patient and doctor alike. Health insurance legislation from 1911 onwards has put the patient under an obligation to attend at a surgery unless prevented by illness. Although at first rather less than a third of the population were covered by insurance, the encouragement of surgery attendance enabled the doctor to draw his patients from a wider area. The tendency has therefore been for fewer doctors to serve a country district now than formerly.

In 1948 the National Health Service made free medical service available to the whole population. Surgery attendance whenever possible was emphasized in the instructions printed on the back of medical cards, and accommodation that had previously been adequate had to undertake the reception of three times the numbers.

Overcrowded waiting-rooms would have been unavoidable even if attendances had not been increased by the service being free of charge. A surgery attendance is usually made because of some minor trouble, among which the upper respiratory infections form probably the biggest group. Attendance may be required for routine treatment or supervision, including antenatal and post-natal examination.

Waiting-rooms probably increase the spread of a great deal of what is termed minor illness, the cost in lost working time being very heavy. Attendance for treatment or supervision often involves rearrangement of household work, or discomfort, or expense in travelling, which discourages regular attendance and prevents regular supervision of, for instance, diabetics and the elderly.

There seems no reason why improved communications and modern equipment should not be used in a small and dispersed practice to revert to the older custom of mainly domiciliary work. The method would have to be within the framework of the National Health Service, and able to pay its way.

In outlying parts of the Colonies, and in other European countries, it is quite common for the well-equipped doctor to travel to the patient. During war-time it was quite normal for a G.D.M.O. based on a hospital to do a daily round by jeep or pickup truck, attending scattered groups of men. At the same time he was available if required in an emergency by any particular group.

Description of Practice and Office Routine

My district can conveniently be described in the form of two equilateral triangles lying respectively above and below a common base, formed by the main road, which runs east to west, and carries the only daily bus service. The total distance between the northern and southern apices is 15 miles (24 km.), and the base is 12 miles (19.3 km.) broad. The lower triangle consists of flat country intersected by narrow lanes; the upper triangle is formed of open moorland ridges which separate the deep valleys that run from north to south. There is no roadway over the moor from valley to valley, access being only from the southern ends. The ridges run together to shut off the northern ends. I live in a village of some 200 inhabitants, which forms the hub of my district.

Surgeries and chemists are available in the two market towns, $3\frac{1}{2}$ and $8\frac{1}{2}$ miles (5.6 and 13.6 km.) away. A bus goes to each of them once a week, on market day, and only those living near the main road are able to use more than a weekly service. The low roads are never completely blocked, but in bad winter weather the high roads may be inaccessible to traffic for several days at a time. There is one telephone in each of the dales, but elsewhere public or private instruments are accessible.

Time spent on office work has been reduced to a minimum by keeping accurate records and using proper equipment. N.H.S. folders (E.C.5 and 6) are filed away and used as envelopes for hospital or specialist's letters. Complete notes and summaries of hospital reports are kept on perforated Copeland Chatterson cards, which give writing space equal to a quarto sheet and fit the typewriter. Sixty of these cards occupy not quite an inch in thickness, whereas 15 E.C.5 or 6 folders have to be firmly compressed into the same thickness. Correspondence and recorded work are typed; on-the-spot notes are taken in shorthand. An alphabetical index of people on my list is kept up to date by pasting in additions and erasing departures as they occur.

Cards in current use are kept separate, and reviewed at the end of each month. I retain the cards that will still be needed, and return the others to the main file. While doing this monthly review, I fill in a nominal list, showing people seen and visits made. The cards held back give the names of those who still need attention, and will form the nucleus of the following month's work. These names are entered on loose-leaves having squares for each day of the month. I make a rough plan for the week's work, adding or altering as necessary from day to day, but in the main being able to arrange for routine work in any district to be done on the same day. This is specially useful for planning my regular visits to the elderly or chronic sick.

Transport

All my journeys can be done in a small light commercial van. I bought a chassis and put on a body to suit myself, so that I can comfortably carry equipment and a passenger if necessary. The overall cost was under £400, and I get over 40 miles to the gallon (14 km. per litre) on commercial petrol. It is easy to manoeuvre, and is reliable, having been designed for frequent stops and starts. Weather conditions have never prevented its use, but in suitable weather I sometimes go on foot, on a motor-cycle, or on skis.

I plan the day's round so that I do not have to retrace my steps, and leave time for delays or for diversion in response to additional calls that come in after I have left home. My patients understand this, and co-operate so well that almost all messages reach me during the advertised "surgery hours." It is also well known that I visit certain people at regular intervals, or certain districts on the same day each week, and I get quite a lot of messages asking me to call when next visiting as the matter is not urgent. New calls generally include an often very accurate indication of

the problem for which advice is being sought, so that I can take the necessary medicine with me.

Distance and accessibility are important in planning the journey, especially in winter-time. Some roads may not be cleared until later in the day in mid-winter, or it may be better to hope for a slight thaw to improve conditions. If possible I find it better to go to the distant places first, so that on the way back I have more chances to pick up additional messages, which are telephoned to places ahead of me. These messages are usually passed on very well, and it is unusual for me not to get the message until I arrive home.

When I started I thought I might be strained by a large number of extra calls or by having to cover a greatly increased monthly mileage. For the preceding four years I had been working from a surgery in the market town $3\frac{1}{2}$ miles (5.6 km.) away, and not dispensing. I was now undertaking to visit at home, and to dispense for three-quarters of all the people on my list. The average distance covered has not been increased by as much as 100 miles, (160 km.) a week, and the number of visits made each month amount to only about 10% more than before, if visits and surgery attendances are added together. This supports my idea that, in country work, visits are often made to a village from which have come some of the visitors to the day's surgery. A surgery may not therefore save a lot of working time.

The scheme has been running smoothly for four and a half years, and I get very few seemingly trivial calls out of normal hours. A large number of calls ask me not necessarily to go that day, but to include the visit with others that I had intended to make in that village on the next day. I am probably helped in two ways. The countryman often finds a journey inconvenient, and is accustomed to acting with consideration when asking others to travel; and it is understood that I will go if required, attendance not depending on an arbitrary definition of "seriousness."

Most people are now able to use the telephone properly. In difficulty, someone is usually willing to telephone for the caller, but in a few cases I have had to instruct patients, either by giving them simple written instructions to keep by them when they go to the box, or in one case by taking an elderly man into the box and giving him a practical demonstration. Many messages come by hand or through the post.

Domestic and Public Hygiene

As my list is drawn from a predominantly farming community I am probably responsible for a higher proportion of elderly people and lower proportion of children than I would be if I lived in or near a town. In other respects the composition is similar to that of any ordinary general practice. I think that the conditions of work and of life account for an intelligence that is lower than average and a poor standard of personal hygiene, although there is much to be deplored in the local standards of domestic and public hygiene.

Many cottages and farms have no inside supply of piped water and no indoor sanitation; quite a high proportion have no piped supply at all, and draw their water from an open beck which is draining from the moor or hillside.

Although more than three-quarters of the houses in my own village have either an inside or an outside water-closet, the entire domestic and farm drainage passes either directly or through a septic tank into the beck which runs down the centre. Fish are rarely found nearer than half a mile (800 m.) downstream. The habit of dipping sheep may to some extent have a disinfectant action. Until two years ago the entire water supply was collected into a brick storage-tank partly from underground springs and partly from open drainage from manured meadows, or open cow or sheep pasture.

A knowledge of domestic conditions is of the greatest help in dealing with the cause or the treatment of illness, and there is no better way of knowing these conditions than by habitually visiting families at home.

Care of Aged and Infirm

The care of aged and infirm people, or the supervision of the chronically ill, may be more of a problem in the country than in a town. Families are smaller and young people are leaving the countryside in greater numbers to find better-paid work in the towns, so that neighbourly help is much more difficult to get than it used to be, and any "home help" scheme is defeated by being understaffed.

Four excellent district nurses share the work of a very wide area, and the M.O.H. is 9 miles (14.5 km.) away, but it is easy to miss cases that need help unless visits can be made at fairly frequent intervals. Many of the elderly are not able to travel to a surgery some miles from their home, and in such cases a doctor is often not asked to help until urgent illness compels his attendance. Chronically sick people, such as diabetics, can generally get to a surgery quite easily, but they put off the journey if they can, unless they feel unwell.

I keep a list of old people that I think ought to be watched, and visit many of them at regular fortnightly or monthly intervals. Others I see from time to time, very often when fine weather takes me walking in their direction. These old people have become accustomed to what I call "social calls," and do not think it incumbent on them to produce a symptom that will ensure another visit or justify a bottle of medicine. Several of them do have a regular supply of one of the harmless mixtures, not because I think the mixture has any physiological action, but because it makes the patient feel better, and therefore has a therapeutic effect. The majority are as easily and effectively helped by explanation of the cause of their symptoms or signs.

Diabetics and chronic sick are visited regularly, and know at what intervals to expect me. They do not phone when nearly out of insulin, for instance, because they know that enough has been given to last until my next visit. Diabetics are all members of the Diabetic Association, and I discuss with them points of interest in the *Diabetic Journal*; they all use "clinitest" sets and test at variable but regular intervals, recording results on a calendar so that I can see them. At intervals I take blood, and have blood estimations done in hospital when I go up for my weekly anaesthetic session. In acute illness, especially when serious, I make a point of saying when I shall next call—if the family do not have to send for me in the meantime.

Maternal and Infant Welfare

I think of maternal and infant welfare as being two aspects of the same and most important part of my work, for in this branch I can concentrate from the beginning on prevention and education. Home visiting makes this most rewarding and professionally satisfactory, and the frequency of visits depends more on the type of home than on clinical necessity.

I like to know as soon as a woman thinks she is pregnant, and encourage home confinement whenever conditions are suitable. If I am told in time, I do a full physical examination at about 10 to 12 weeks, including a pelvic examination and an estimation (Sahli) of haemoglobin percentage. This routine applies to all cases, whether a first or subsequent pregnancy. Thereafter I visit monthly to 30 weeks, fortnightly to 36 weeks, and weekly or more often till confinement. The blood pressure and urinalysis are recorded at each visit up to 36 weeks, after which urinalysis is done only weekly unless otherwise indicated. The abdomen may not always be examined at each visit until the 30th week, but after that time it is examined at each visit. A full examination at the 30th to 32nd week is combined with a sample of venous blood, taken into a "venule" and sent for grouping, reports of rhesus factor, and a report on blood film. Haemoglobin is estimated on the spot, by Sahli's method. Compound vitamin capsules and iron are given at the latest from the 30th week in the form of "capsules abidec" and

"tabs. fersolate," one or two of each daily. When necessary, the father's blood group and rhesus factor are also determined.

I am told when labour begins, and try to visit as soon as possible. I may then decide to go and do some neighbouring visits, so long as I am sure to be able to be present for the latter half of labour. It is understood that nurse delivers the baby and acts as midwife unless she wants me to take over, so that I can concentrate on general management and upon giving analgesia.

General management may include the use of oxytocin in amounts of two or three units at a time when the os is fully dilated, if there is evidence of fatigue; or the use of pethidine in doses sufficient to slow rapid progress. Analgesia is by pethidine combined with trichlorethylene; the pethidine is put up for me by the hospital dispensary in amounts of 50 mg. in 5 ml.; trichlorethylene is given from a Friedman set that I have altered so that I can control the proportion of vapour in air up to approximately 5%. My technique is not suggested for general use because I have specialized training and a hospital appointment in anaesthesia.

Should any repair be needed, I try to leave the patient for 24 hours. This allows her to recover and gives time for oedema to subside; I then give intravenous thiopentone (nurse always being present) and suture the repair in comfort.

Post-natal visits are made daily, on alternate days and finally weekly until about six or eight weeks after confinement, when I do another complete physical examination similar to the one done at 10 to 12 weeks. Thereafter I visit up to 10 months at monthly intervals.

The infant is vaccinated at 6 months, by which time any upset is much less alarming. At 7, 8, and 9 months a combined injection of the Wellcome preparation is given to immunize against pertussis, diphtheria, and tetanus. So I follow the progress of the infant for the first 10 months of its life, and am by then well able to anticipate its future development.

A result of this system is that every child that I have attended in this way since I came here nine years ago has been successfully vaccinated against smallpox and properly immunized against diphtheria and pertussis, and also against tetanus since 18 months ago. Pertussis has not occurred in any child that I have immunized since I came here. Immunization against tetanus is of importance in this district where there have been two deaths in children under 7 years of age in the past eight years.

If home conditions are not suitable I arrange for confinement in the maternity hospital 30 miles (48 km.) away, but in all other respects the antenatal and post-natal supervision is conducted as before.

Neurosis

From correspondence in the medical press it is concluded that neurosis takes up about a third of the general practitioner's time; I should say that this is roughly true for the calls made upon my time. The common factor is anxiety, of which the manifestations are boundless; serious mental illness is rare. In case of serious illness I arrange a domiciliary consultation with a psychiatrist, and have so far had no trouble about getting the patient admitted voluntarily. The nearest duly authorized officer is 30 miles (48 km.) away, and he shares with one colleague the work over an enormous area.

The home background is of such importance in elucidating the cause of neurosis that I find the problems far less perplexing during a home visit than I used to do when I tried to deal with such cases in my surgery—with a door between me and a crowded waiting-room. During the first few visits I get a good idea of the background, and the patient gets over much of her shyness. I next make an appointment to visit, with nurse whenever possible, first

thing in the morning, in order to examine the patient in bed after a night's rest. If there are doubtful points, I follow them up by a special investigation or reference to an out-patient clinic.

Whatever the result, this is reassuring to the patient, who is satisfied that she has been thoroughly examined. She is not affronted, therefore, if told that her symptoms do not indicate definite organic illness, and is prepared to listen to an attempt to explain the relationship between psyche and soma. I do not try to hurry things, and as there is always some evidence (if only slight) of physiological dysfunction, I institute appropriate medical treatment while leading up to an attempt to explain the influence of anxiety.

In many cases, with the patient's consent, I ask their vicar or priest to call. Sometimes I discuss the problem with him; at other times I ask for his help and leave him to adopt his own approach. I find this very happy co-operation of the greatest help to those patients who let me take this line, and the results are better than in those cases where a conventional method is used.

If I am unable to make headway I refer the case to an out-patient clinic without delay, so that the patient has no time to feel that her case is hopeless or that nothing is going to be done to help her. Out-patient treatment entails at least a 30-mile (48-km.) journey in each direction; thus the patient is away from home for most of the day if she is having a course of shock therapy. I have insufficient experience to draw conclusions from my small number of cases, but my impression is that active therapy is not a great help. I think that if ordinary measures fail to get improvement it is better to try to get the patient to live with her neurosis. Family and friends are very helpful if the problem is explained to them, and this sort of explanation, combined with regular visits of the "social call" type, can maintain a remarkably stable outlook.

Whatever the form of treatment, the patient has ultimately to face the ordinary problems of home and family, and, although there is improvement while she is away having treatment, there is nearly always a relapse soon after her return to ordinary life.

Minor Surgery

The scope of the work undertaken need not be limited because it is done in the patient's home. All my equipment is portable and easy to transport from place to place, and very few modifications have been made to suit my present needs. In any case, so much country work has to be done in the home, where facilities are limited, that items like a battery-operated headlamp and a portable sterilizer are in everyday use.

Until quite recently it was customary to do a great deal of minor surgery in the home or at the doctor's surgery—some of it not really minor, as removal of tonsils and adenoids was considered quite reasonable. Although these procedures were generally done well, they can now be done so much better in hospital out-patient clinics that it is not justifiable to do them elsewhere. I arrange for cases to be taken into minor operations clinics at the local hospital, and to be brought back home soon afterwards. All the rest of the treatment is done at home, and when completed a note to that effect is sent to the hospital for filing with the clinic notes.

For instance, a patient requiring Trendelenburg's operation for varicose veins will be given written instructions about pre-operative preparation (diet, bowels, etc.) and sent by ambulance so that she reaches hospital by 9.30 a.m. The arrangement is that she is put down for the first part of the list, so that the operation has been finished by lunch-time. She is brought back home at about five in the evening, and is put to bed, where I see her that evening. I decide when she may get up and attend to the dressings and stitches. Two notes are sent to hospital: the first when all the stitches are out, the second about a month later, when I pay a final

visit and assess the result of treatment. I rarely find that I must keep the patient in bed for more than a day or two, and when in bed she can attend to innumerable household matters that require her decision or instructions. The result is that I have no difficulty in persuading people to go up for a minor operation, and they avoid the inconvenience of elastic stockings or similar appliances.

Extensive dental extractions are often more satisfactorily done at home than in the dental surgery, which is 9 miles (14.5 km.) from most of my patients. Domestic arrangements are made, and generally one of the nurses meets us at the house. I give an injection of atropine as soon as I get there, and nurse then prepares the patient while the dentist and I get our equipment ready. I give thiopentone and attend to the patient's head, so that I make sure of a proper airway and can keep the back of the mouth free from blood. After the extraction I wait until I am satisfied that the patient is completely conscious. The subsequent treatment is of course done at the dentist's surgery.

Dispensing

Three-quarters of my patients live more than two miles (3.2 km.) from a chemist, and I dispense for them on the tariff basis. Other doctors in the locality do not dispense, but it would be rather pointless for me to give my patients an E.C.10 to take to a distant chemist when I am trying to conduct a domiciliary practice. I simplify the monthly returns of E.C.10's, both for myself and for the pricing bureau, by typing them in different colours. By using the tabulator I can deal with three prescriptions at a time on my machine. Group A are typed in blue, and group S in red; sorting at the end of the month could hardly be made more simple, and every prescription is legible. Dispensing seems to give me more control over treatment, and I am able to give out as much medicine as I think necessary at one time, which is more economical than giving an E.C.10 for as much as might become necessary if the response is not as rapid as usual. That my monthly return of items dispensed shows a fairly steady decline over the four and a half years is, I think, one indication of the success of advice and education during visits. I use almost no placebos, but I do use a number of expensive chemotherapeutic and antibiotic agents, and a good deal of insulin; in spite of this my costs work out at considerably less than the national average per head. I have no difficulty in collecting the 1s. prescription charge, and am generally given it without having to ask. I think that most of my patients now know that this charge is a form of tax, and none of them think that it is one of my perquisites.

Conclusion

Home visiting restores a great deal of the old family doctor relationship, and it becomes an advantage to find out a little about taxation, official returns, welfare services, and a number of things which are outside the medical curriculum. But advice about such things can often be more efficacious than several bottles of medicine. Whether he likes it or not, a country doctor has an important part to play in the affairs of his parish or district, and the value of his help is greatly increased by an intimate knowledge of the homes and lives of his neighbours.

Summary

A country practice in a sparsely populated area, poorly supplied with bus services, is described.

All the work is done by visiting the patient's home, and a central surgery is not used. Drugs are dispensed for three-quarters of the small list, and specialist services are readily available at a hospital 30 miles (48 km.) away. It is claimed that the pressure of work is not increased by excluding a central surgery, and that the scope of the work is not limited by the absence of surgery facilities.

APARTHEID IN MEDICAL EDUCATION

REPORT BY DEAN OF FACULTY OF MEDICINE, NATAL UNIVERSITY

On March 11 the Government of South Africa introduced a Bill for university apartheid.* It provides, among other things, for the separation of the Faculty of Medicine, intended mainly for the training of Africans, from the University of Natal. At the request of the president of the Natal Coastal Branch of the Medical Association of South Africa and other interested persons, a report on the matter has been prepared by Professor I. GORDON, professor of pathology and dean of the Faculty of Medicine of the University of Natal, and this report, thanks largely to a donation from Mrs. FLORENCE A. E. POWELL, who in the past has contributed generously to the development of the Medical School, has now (March 4) been published.

The report is in the form of a quarto brochure of some 50 pages and contains as much printed matter as would fill some 25 columns of an average English newspaper; it is arranged in four sections and gives the whole history of the Medical Faculty from approximately 1922, when the first tentative efforts were made in Durban to train Africans to be doctors.

Background to the Bill

Section I of the Report is essentially historical and calls for little remark, except in that it includes an extract from a message from the present Minister of Education, Mr. J. H. VILJOEN, sent to the University when it was appealing for funds in 1952. In the course of the message the Minister stated, "University education should not be, and is not, State Education," and a little further on the message refers to "... this praiseworthy undertaking in respect of which great credit is due to the University of Natal..." Section II, also largely historical, takes up the tale in 1953, November, when the Government appointed a commission of inquiry in regard to the provision of separate training facilities for non-Europeans at the universities. All too often this Section is punctuated by the phrase "heard unofficially."

The commission in its findings strongly recommended that the Faculty be left on its present basis within the University of Natal. However, the Government refused to accept the findings and appointed an interdepartmental committee to formulate an effective scheme for separate development. In March, 1956, the dean of the Faculty of Medicine first heard unofficially that the Cabinet had decided to transfer the control of the Faculty of Medicine away from Natal University to the University of South Africa. Vigorous efforts to secure an opportunity to present the complicated situation in the University of Natal at Durban, where the medical school existed, to the interdepartmental committee were unavailing. Towards the end of that year (November, 1956) the principal of the University, Dr. E. G. MALHERBE, heard, also unofficially, from the Secretary for Education of the Government's intention to place the Faculty under the control of the Department of Native Affairs, subsequently altered to Department of Education. But it was not until the end of January, 1957, that the first public information became available in the form of a reply by the Minister of Education to a question in Parliament.

Protests from Universities and Branches of Medical Association

Protests rapidly followed this announcement. On February 7 the Faculty and heads of departments of Natal University held an emergency meeting and passed a resolution of emphatic protest at the Government intention. On February 11 the students of the Faculty likewise protested. Two days later the Natal Coastal Branch of the Medical Association of South Africa added their protest, and pointed out that the Branch would find it impossible to co-operate

*See *British Medical Journal*, March 16, p. 655.