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THE ORGANIZATION AND ADMINISTRATION OF A GENERAL PRACTICE*

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“The truth is that general practice is what the doctor makes it. For one it is a drudgery to be escaped from as soon as finances permit; for another it is a mixture, with its good and bad moments; for a third, despite hard going sometimes, it is on balance a joy.”—*Stephen Taylor*.

Three years ago it was my good fortune to be appointed to a single-handed practice in a Buckinghamshire village. On New Year's Day 1954, I took over the practice and in the following two months bought a house, converted part of it to a surgery, and furnished and equipped it. At the end of February my wife and I returned from a short honeymoon to a home and job which we hope to share for the next thirty years.

We were faced with the problem of providing a surgery for a single-handed doctor working from his own home, a pattern of practice which is likely to remain common in the country even if health centres and group practices become the rule in the towns. We had little time or money. The house that we bought was not designed as a doctor's house; we had to make the best of what we found as quickly and cheaply as possible. This essay is based on our experiences.

The Practice

The practice covers nine villages in an area of two and a half miles radius. In the centre is the largest of the villages with a population of 1,666; here is the house with the main surgery. Branch surgeries are held in two other villages. The country is gently undulating and intensively cultivated. Roads are good; the circular tour visiting all the villages is eighteen miles.

Three miles to the south-west is a market town where there is a cottage hospital and a chemist. Six miles to the north-east is a county town, with an excellent hospital service. Fifteen miles to the west is a university city and its medical school. Employment is plentiful; heavy industry in the towns, light industry in the largest of the villages, and agriculture. Housing is adequate, with little overcrowding either in the old cottages in which many of the country folk live or in the modern council houses.

There are about two thousand patients on the list and for most of them drugs are dispensed. Domiciliary midwifery is undertaken.

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The only appointment is as honorary clinical assistant in the medical outpatient department in the hospital in the county town. There is practically no private work.

The Surgery

It was fortunate that at the time of the appointment there was on the market a house which proved easy to convert to a doctor's house. The various additions which had been made since the house was built in 1933 provided two rooms at the back of the house with a separate entrance. It was decided to make the larger room into the consulting room and the smaller into the waiting room (Fig. 1). A doorway had to be knocked through from the waiting room to the hall, and a door put across the corridor to isolate the surgery from the rest of the house. These were the only structural changes necessary. Patients enter the back door, pass into the waiting room through the hall and a small lobby; the waiting room is separated from the consulting room by another lobby. All rooms are at ground level so there are no stairs for the aged and infirm to climb.

We tried to make both rooms look as cheerful and homely as possible. The waiting room (Fig. 2) is furnished with folding wooden chairs and a table for magazines. The walls are painted with white emulsion paint and the floor covered with light coloured linoleum. There are bright red plastic curtains with a floral design at the windows. The room measures 11 feet by 9 feet and is the absolute minimum that would serve the purpose. We would like it twice as big but the cost of adding to it was prohibitive.

The lobby between waiting and consulting rooms measures 5 feet by 3 feet 6 inches. It makes the consulting room soundproof and provides a way from the consulting room to the rest of the house without going through the waiting room. The consulting room door has frosted glass panels, providing light to the lobby.

The consulting room measures 13 feet by 12 feet, which is big enough to combine the three functions of consulting room, examination room and dispensary. The lay-out is illustrated (Figs. 3, 4). The desk measures 5 feet by 2 feet 9 inches and is placed to get the best light from the two windows. The chair at the desk is a revolving one with wheels; the patient's chair is a comfortable upright arm-chair. An additional chair is provided for a relative, or for the patient to put his clothes on while undressing. On the desk is a rack for stationery, a book trough with reference books, a wire basket for papers and a bowl of flowers. Behind the desk is the filing cabinet in which the record cards are kept; it can be reached from the chair. The couch lies along one wall. There is a space between the desk and the couch for the patient to undress, and a curtain on runners screens off this area from ceiling to floor. A

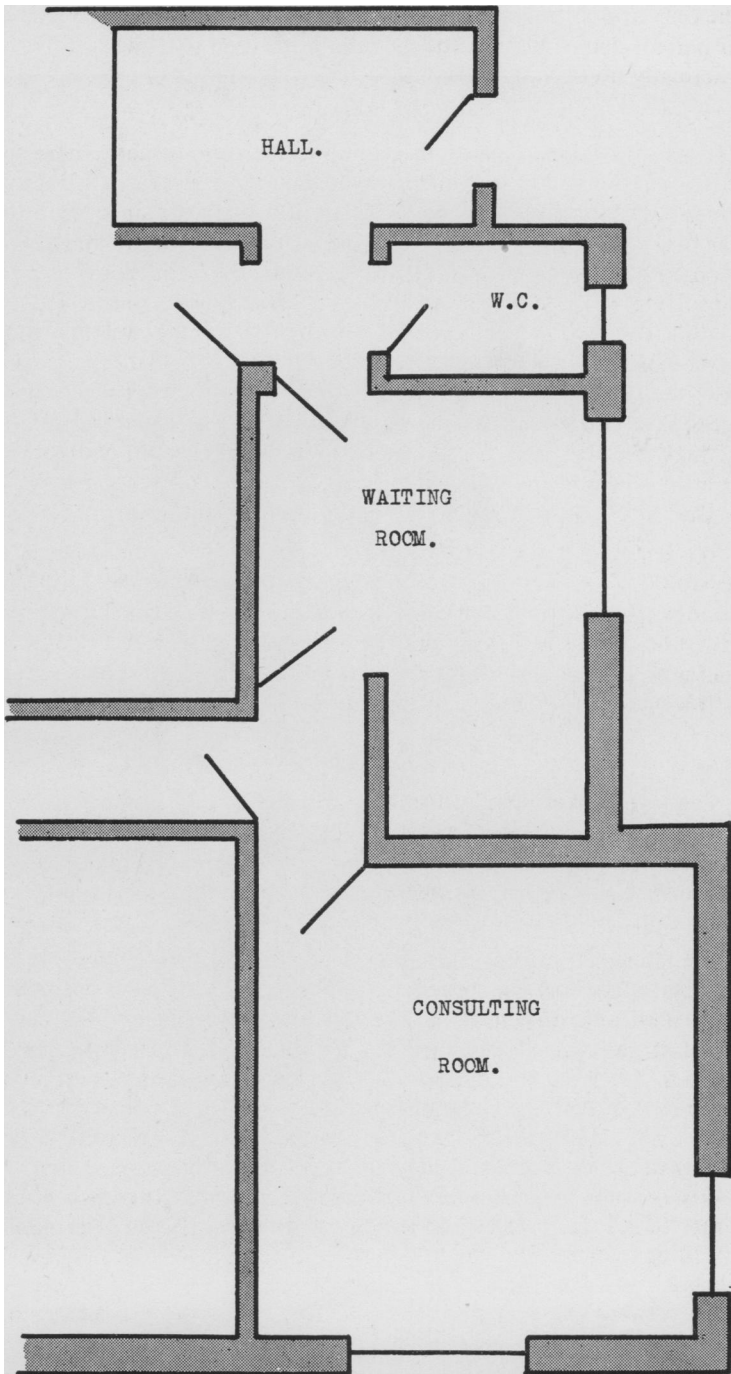


Fig. 1. Plan of Surgery

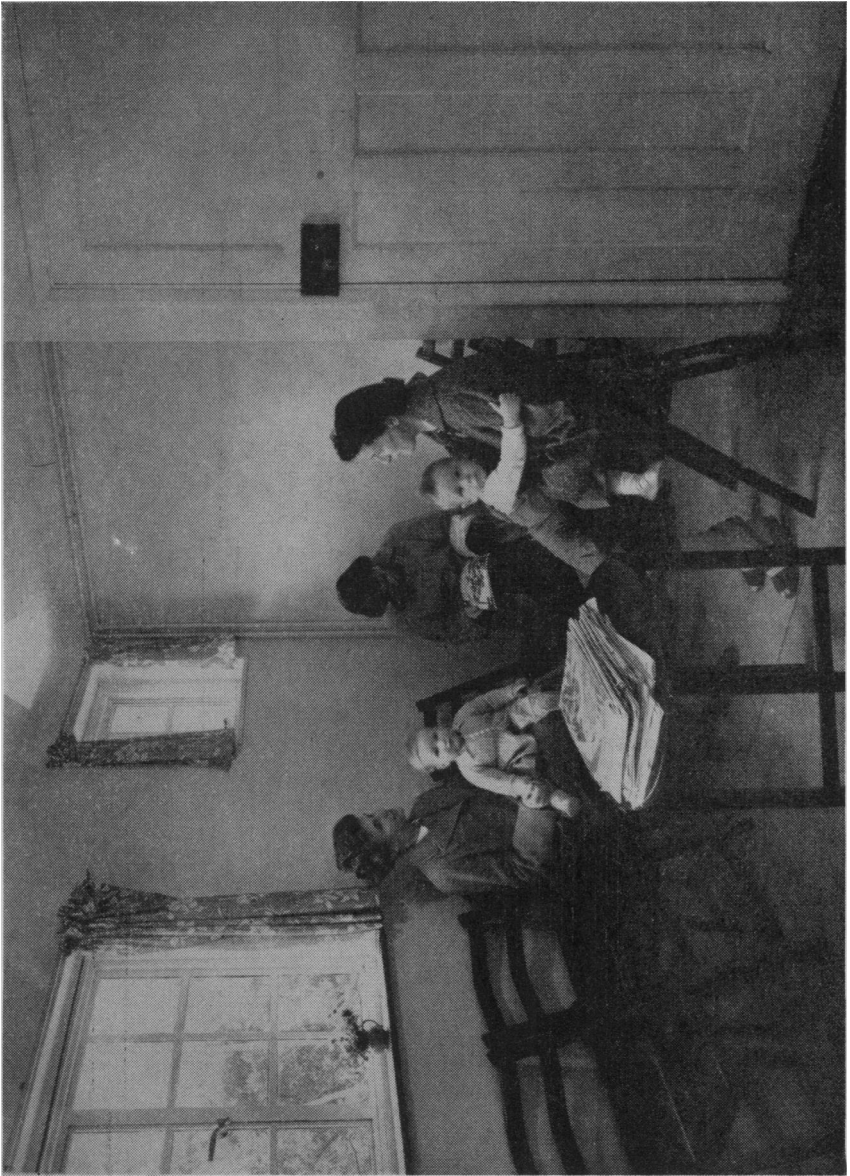


Fig. 2. The Waiting Room

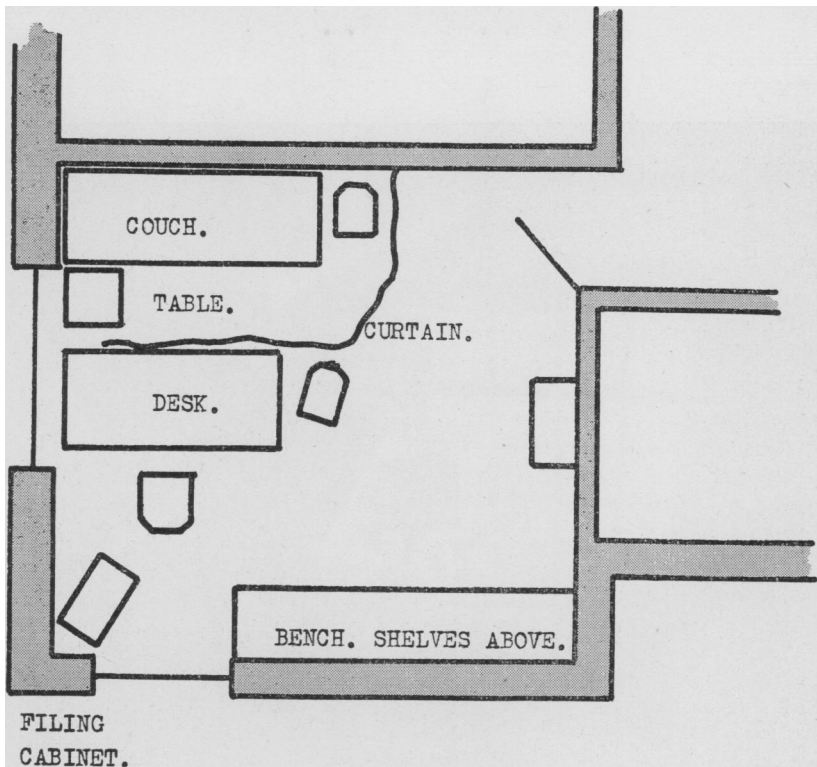


Fig. 3. Plan of Consulting Room Furniture

table at the head of the couch carries the instruments for clinical examination.

The dispensary side of the room provides shelves, a bench with cupboards beneath and a sink. The shelves are built along the wall at heights of 4 feet 6 inches, 5 feet 6 inches, 6 feet and 7 feet. A total of 28 feet 6 inches of shelf is provided. Three sliding doors cover the shelves. The bench, sink and draining board are kitchen furniture units, bought at the January sales; they are decorated in blue, white and maroon and have formica tops. Beside 5 feet of bench space they have seven drawers and four cupboards in which are kept equipment, bottles, corks, bandages and dressings. The room is decorated in a restful light shade of grey emulsion paint. the floor is of wood blocks. Two big windows look out on to the garden and have gaily patterned curtains. Both rooms have kept a clean and light appearance after three years use.

Careful attention has been paid to heating and lighting. Both rooms are heated by electric tubular radiators, controlled by thermostats. This is a relatively expensive way of heating, but was

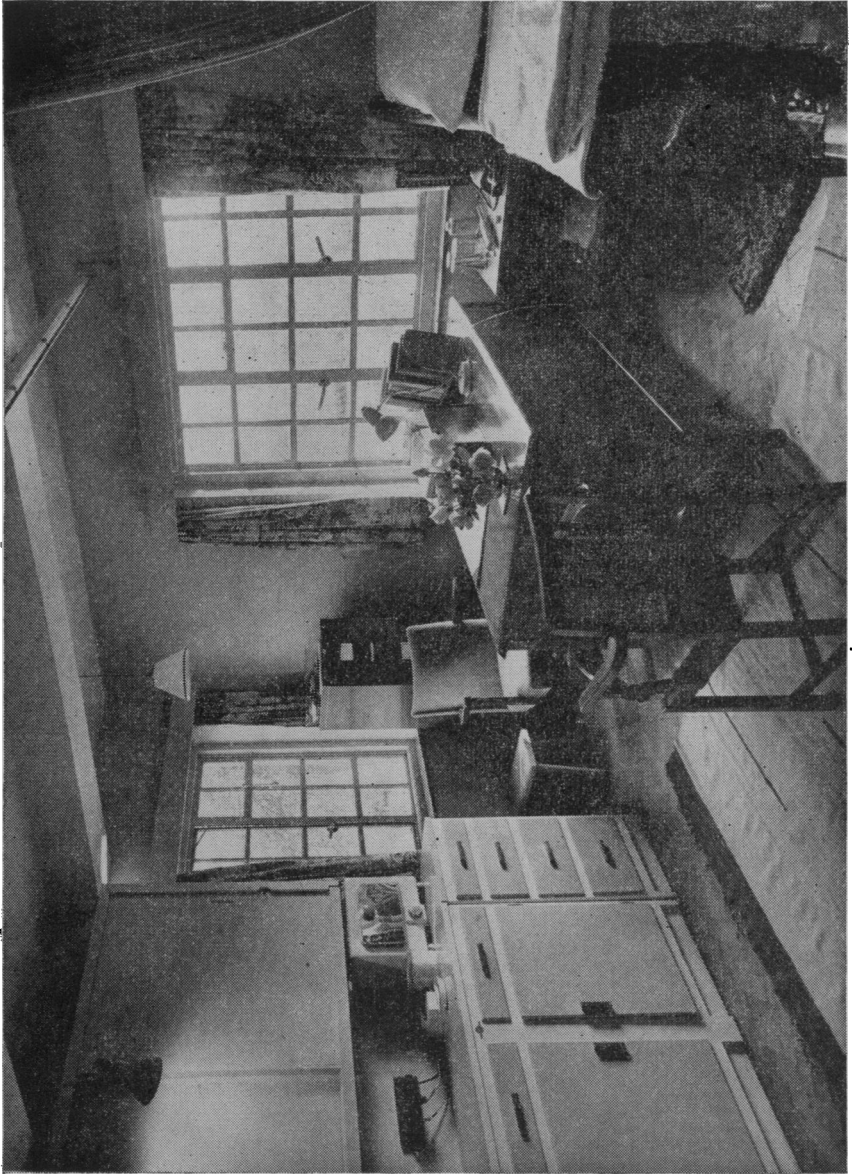


Fig. 4. The Consulting Room

installed because it requires no attention and because hot water radiators would have involved expensive plumbing and a bigger boiler. There is no gas supply in the village and oil stoves were thought to be unsafe in a crowded waiting room. The thermostats are set at 55° F. by day and 40° F. at night. This is reasonably economical, provides a comfortable temperature in the day and keeps the rooms from cooling down too much at night. In addition there is an electric fire mounted on the wall above the couch so that extra heat can be supplied quickly where it is most needed.

The waiting room is lit by a single bulb in a shade hanging from the ceiling. There are four lights in the consulting room. One hangs from the ceiling over the filing cabinet; an adjustable lamp holder over the bench lights bench and shelves; a wall fitting over the couch provides light for examining a patient and an adjustable table lamp on the desk illuminates papers on the desk and can be used with a head mirror.

The hall measures 10 feet by 5 feet. It helps to keep the waiting room warm and provides space for patients to leave coats. In epidemic seasons extra seats can be placed there. There is a table on which medicines are left for patients to collect. Signs are screwed to the doors to direct patients. On the back door is a sign reading "Please walk in". The consulting and waiting rooms are appropriately marked and the doors leading to the rest of the house are marked "Private".

Modest as this arrangement may seem it does in fact provide everything necessary for a practice of two thousand patients and avoids many of the disadvantages of having the surgery in one's own home. The surgery is separate from the rest of the house, though under the same roof, and patients do not come into rooms occupied by ourselves. The lobby and its doors between waiting and consulting rooms make these rooms soundproof from each other and from the rest of the house. There is no need for children in the house to keep quiet during surgery hours. From the consulting room the patients cannot be seen or heard coming up to the waiting room, which helps to prevent one feeling hurried during busy sessions.

In these circumstances the practice does not intrude unduly into private life. Indeed, there are advantages in living over the "shop". Costs are reduced and there is no need to go outside for surgery sessions or for emergencies brought up to the surgery. As will be explained later it is necessary to have a third person living at home if the doctor's wife is not to be continually disturbed by the telephone and door-bell. The system can then run very smoothly since the third person may combine the roles of part-time secretary, and mother's help.

The disadvantages of these surgery premises are that the waiting

room is much too small and that there is no examination room. A separate dispensary might appear to be essential, but in fact one manages very well without, since today most of the dispensing is done with tablets. The patients have to return through the waiting room having seen the doctor; some dislike this, others like to collect their belongings on the way out.

These are limitations imposed by the building as we found it. The cost of conversion including structural alteration, plumbing, rewiring and decorating came to a little over £200, which may perhaps be borne in mind when comparing the amenities with those of a health centre.

Equipment

The cynic may say that the only instrument the general practitioner needs is a fountain pen, but the cynic probably works in hospital where Sister waits on him with trays of sterile instruments and the junior probationer clears up the mess. The general practitioner must provide and maintain his own equipment; it is his unaided responsibility down to the last sordid detail, such as washing the rubber gloves after a pelvic examination. The care of equipment is a very important matter and upon it depends to a large extent the quality of the work done. Good equipment adds enormously to the joy of practice and the pride in the job.

Diagnostic Instruments

These are kept on a table beside the couch where they come conveniently to hand:—

Binaural stethoscope
 Mercury sphygmomanometer
 Tape measure
 Tuning fork
 Percussion hammer
 Illuminated tongue depressor
 Foetal stethoscope

On a tray below the table are two urine test glasses and the pelvic tray. The use of trays is convenient, all the instruments for a particular job being kept together.

The pelvic tray contains:—

Rubber gloves	Sponge forceps
Finger stalls	Glove powder
Lubricant jelly	Plastic vaginal speculum
Plastic proctoscope	Contraceptive fitting set
Assorted round and Hodge pessaries	

The other tray contains E.N.T. instruments and is kept in a cupboard under the bench. It contains:—

Head mirror
 Harris nebuliser
 Thudichum's nasal speculum
 Politzer's aural forceps
 Laryngeal and post-nasal mirrors
 Orange sticks, probes and wires
 Aural specula

Instruments for Minor Surgery

Minor surgery comes the way of the country doctor whether he likes it or not; it saves the patient time and expense if his cuts can be stitched up on the spot, besides coming as a welcome change to paper work for the doctor. I like to do everything in my surgery that I can tackle under local anaesthesia. Anything that needs a general anaesthetic I deal with at the local cottage hospital with assistance from a colleague, or send to the hospital in the county town six miles away.

The necessary instruments are kept in the hot-air sterilizer, where they are always sterile and ready for use.

The instruments I use are:—

Needle holders	Toothed dissecting forceps
Dissecting forceps	Sharp pointed scissors
Knife handle with detachable blades	
Assorted needles, curved and straight	
Gallipot	

Cotton wool balls and gauze swabs, with two sterile towels are packed in a dressings drum which is kept in the cupboard, and sterilized at the local hospital.

Syringes

All-glass syringes are used both for giving injections and for taking blood for the laboratory. I keep twelve 2 ml., six 10 ml., and two 20 ml. syringes. They are sterilized within heavy glass test tubes in the hot-air sterilizer. To have one's own dry sterile syringe service is of great value. The syringes are consistently sterile, removing all risk of abscesses, cellulitis and jaundice; blood samples are not haemolysed as they are when wet syringes are used. Washing and drying the syringes and remounting them in the tubes means extra work, but in my experience it is a practical proposition and I believe it is worth it. In fact, it is the only method by which sterile syringes can be taken to the patient's house. Boiled syringes cannot be transported and syringes in spirit or other chemical are not reliably sterile. The statement, "I carry my syringes in spirit and never get any trouble," is based on good luck and myopia.

Miscellaneous Equipment

Microscope—This is used for examining urine for red and white blood cells; vaginal swabs for trichomonas and monilia; and blood slides stained with Leishman's stain.

Vaccination set—A small tin with a rubber teat for expressing the lymph from the tube, and a needle mounted in the cork of a small glass tube.

Carbon dioxide snow apparatus—It dawned on me one day that by sending patients to the dermatological outpatients they had to travel in all thirty-six miles and wait three weeks before their warts were treated. I bought a CO₂ snow apparatus and it now takes five minutes.

For syringing wax from ears—An Eustachian catheter attached to a Higginson's syringe halves the time taken and the mess made.

Heaf gun—A quick, reliable and painless method of tuberculin testing.

Weighing scales—bathroom type for adults.

Weighing scales—for babies.

Snellen test type.

Cleaning and Sterilizing Instruments

On the draining board beside the sink are two jam jars; one contains a common domestic detergent, the other dettol. In each stands a plastic sponge on a handle. As each instrument is used it is washed thoroughly under the tap with detergent. Those to be sterilized by heat are dried and placed in a box beside the sterilizer. Instruments which will not stand heat, such as perspex specula are scrubbed with pure dettol, rinsed and dried. Rubber gloves present a problem of their own. There is nothing quite so distasteful as washing a single rubber glove; the easy way is to wear a pair, so that they can be washed together on the hands, treated with dettol, rinsed, dried and powdered.

All surgical instruments and syringes are sterilized by dry heat in a hot-air sterilizer. The one I use has internal dimensions of 11 by $5\frac{1}{2}$ by $5\frac{1}{2}$ inches and cost £39. 15. 0. The temperature within the oven is controlled by a thermostat over the range 100° — 250° C. It has proved reliable in use. The temperature checked by a thermometer introduced through a vent in the top is maintained accurately, and bacteriological testing with packets of spores has confirmed its efficacy. The sterilizer has three trays in one of which the instruments for minor surgery are kept.

Instruments and syringes are sterilized at 160° C. for one hour, an additional half hour being allowed for the sterilizer to reach this temperature.

Sterilization by dry heat is the ideal method for general practice. Equipment can be sterilized within containers and transported sterile; sterilization is complete; there is no steam to ruin the paintwork and no harm comes if the sterilizer is inadvertently left on all night.

The disadvantages are the high initial cost, and the time taken to sterilize instruments is greater than with boiling, so that one has to have more instruments.

How the Practice Works

Morning surgery is held daily in the week from 9 to 10 a.m. Most of the correspondence is done before it starts. The visiting round starts as soon as possible after the surgery, usually before 10.30 a.m. There are branch surgery sessions at 10.30 a.m. on Monday and Friday in one village and at noon on Thursday in another. On Tuesday afternoon the district nurse and I see together antenatal and postnatal cases at the surgery by appointment. Friday morning, from 11 a.m. to 1.30 p.m. is spent as clinical assistant in the medical outpatient department of the hospital. Wednesday is the half day. Evening surgery is from 6 to 7 p.m. on Monday, Tuesday, Thursday and Friday. The rest of the time is available for visiting.

There are thirteen sessions a week, so that surgeries are not crowded, except in epidemic seasons in the winter, when each session may last two hours. For nine months of the year the attendance is from six to twelve, a proportion of them for certificates or a supply of medicine, so that there is time to examine those that need it, in the short case category. Since the waiting room is small and I do not like to keep people waiting longer than I can help, I prefer to deal with anything that takes longer than ten minutes by appointment outside surgery hours.

A long case takes at least forty minutes for a thorough history and examination, with urine testing and perhaps collection of blood samples. A psychiatric interview may take longer. For these consultations appointments are made in the hour from 5—6 p.m., before the evening surgery. The patient and I can then feel that we have an hour together without other commitments. I feel it is most important to organize the surgery sessions so that each patient feels he is not being hurried and that the doctor is devoting his whole attention without worrying how many more there are in the waiting room. This is good for the doctor as well as the patient, for an urgent feeling of hurry is one of the most stressful states of mind. An unhurried approach saves time later, by avoiding unnecessary chronicity. By dealing with problems as they come, the waiting room need not be filled with patients with ill-understood maladies being treated empirically for long periods.

Visits

At the end of the morning surgery the day's visiting list is completed and the necessary record cards and equipment collected. A little forethought can save time and travelling. It helps enormously if all calls other than emergencies are in by 10 a.m. and late callers are gently reminded of this and their attention drawn to para. 2 of their medical card. It is extremely irritating to go out without some necessary instrument or form and have to repeat the journey later in the day. The contents of the bag must be frequently checked and reserve supplies of commonly used drugs such as penicillin are carried in the car.

The round itself must be planned so that unnecessary driving is avoided. Urgent calls are of course seen as soon as possible and the day's new calls visited in the morning, but follow-up visits and the chronics can be arranged so that travelling is reduced to a minimum. The visits are recorded in a book. I have a preference for a day-to-a-page diary in which all the visits for each day can be seen at a glance, and in which reminders can be written for as long ahead as necessary—to take medicine here, collect blood from Mrs. A., and bring the scales to weigh Mrs. B.'s baby. As each visit is

completed it is ticked off the list and the next visit to that patient entered. This must become an unailing rule if visits are not to be overlooked.

The frequency with which patients are visited needs some thought; it depends to a certain extent on the time of year and the amount of work. There are a few people who need twice daily visiting; serious infections having penicillin, and the dying. Then there are those needing daily visiting in the acute stages of an illness. Twice weekly and weekly visits are for those with acute illnesses that are doing well, and for severe chronic illness demanding active treatment such as heart failure having mersalyl. Chronics for whom one is supervising long-term treatment or just watching, and the lonely whose visits are more social than anything else, can be seen fortnightly or monthly.

Maternity cases may need daily visiting at home if resting in bed with toxæmia. In the puerperium three or four visits a week is the rule until the baby's feeding is soundly established.

There is a maximum number of visits that can be made each day with efficiency; increasing the number much beyond this critical figure means that the round degenerates into a race against time, a race to see how quickly one can hurry into and out of a patient's house. At this pressure visits are of dubious value to the patient and it is to everybody's advantage to visit less often and more thoroughly. I find that I cannot make more than an average of four visits an hour without feeling hurried; this may be raised to six for short periods during epidemics.

As the time-table reveals, on Monday, Thursday and Saturday, three hours are available in the morning and three in the afternoon. On Tuesday, Wednesday and Friday, half the day is devoted to clinics or leisure. Therefore on three days a week the maximum number of visits that can be made without feeling rushed is twenty-four and on the other days twelve, which gives a mean of eighteen. In fact the mean of weekdaily visits in each quarter of 1956 was:—

January	—	March	..	..	15
April	—	June	..	..	9
July	—	September	..	..	9
October	—	December	..	..	7

These figures suggest that, in these conditions of practice, 2,000 patients are nearly as many as can be looked after properly in the first three months of the year, whereas in the rest of the year a considerably larger number could be cared for. It is my impression that, taking into account obstetrics, a half-day a week at the hospital and the need for adequate leisure and time to read, clinical standards would begin to fall if the list exceeded 2,500. The number of new calls each day varies from none to ten.

I aim to carry all the instruments, syringes, stationery, drugs and

notes necessary for the day to day work on the round in two receptacles, a bag and a basket.

The bag

The bag is a standard three drawer type. The top drawer is kept for papers and forms, certificates and prescriptions. The middle drawer contains the instruments for clinical examination:—

- Clinical thermometer
- Anaeroid sphygmomanometer
- Binaural stethoscope
- Foetal stethoscope
- Gloves and finger stalls
- Lubricant jelly
- Clinitest set

The lower drawer contains drugs commonly used at visits:—

Tab:	aspirin	..	..	..	..	..	..	gr. 5
	anthisan	..	..	..	..	..	..	100 mg.
	soneryl	..	..	..	..	..	..	gr. 1½
	physeptone	..	..	..	..	..	..	5 mg.
	pethidine	..	..	..	..	..	..	50 mg.
	sulphamezathine	..	..	..	..	..	..	0.5 g.
Inject:	penicillin, crystalline sodium " G "	..	..	..	..	..	..	1 mega unit
	sterile distilled water	..	..	..	..	..	..	2 ml.
	mersalyl	..	..	..	..	..	..	2 ml.
	dextrose	..	..	..	..	..	..	25% solution
	digoxin	..	..	..	..	..	..	0.5 mg.
	ergometrine maleate	..	..	..	..	..	..	0.5 mg.
	adrenaline	..	..	..	..	..	..	0.5 ml.
	carbachol	..	..	..	..	..	..	0.25 mg.
	ergotamine tartrate	..	..	..	..	..	..	0.25 mg.
	paraldehyde	..	..	..	..	..	..	10 ml.
	theophylline ethylenediamine	..	..	..	..	..	..	0.24 g.
	sodium amytal	..	..	..	..	..	..	0.125 g.
	insulin	..	..	..	..	..	..	40 u./ml.
	morphine sulph.	..	..	..	..	..	..	gr. ½
	diamorphine hydrochloride	..	..	..	..	..	..	gr. 1/12
	hyoscine co.	..	..	..	..	..	..	gr. 1/100

The lowest compartment contains a diagnostic set with ophthalmoscope, auriscope and illuminated tongue depressor, and the syringes. In the rack there is a bottle of spirit, of sterile distilled water and salicyl-sulphonic acid. In the flap inside the lid are laboratory request forms.

The Basket

This is rectangular measuring 20 inches by 14 inches by 5 inches, such as bakers use to carry bread (Fig. 5). It is divided by cardboard partitions; the largest division contains drugs in tablet form:—

Tab:	aspirin	..	..	..	..	..	..	gr. 5
	dexamphetamine sulph.	..	..	..	..	..	..	5 mg.
	digitalis praep.	..	..	..	..	..	..	gr. 1
	ephedrine hydrochloride	..	..	..	..	..	..	gr. ½
	sulphamezathine	..	..	..	..	..	..	0.5 g.
	soneryl	..	..	..	..	..	..	gr. 1½

These are in bulk, for dispensing at branch surgeries, and for patients who live at some distance.

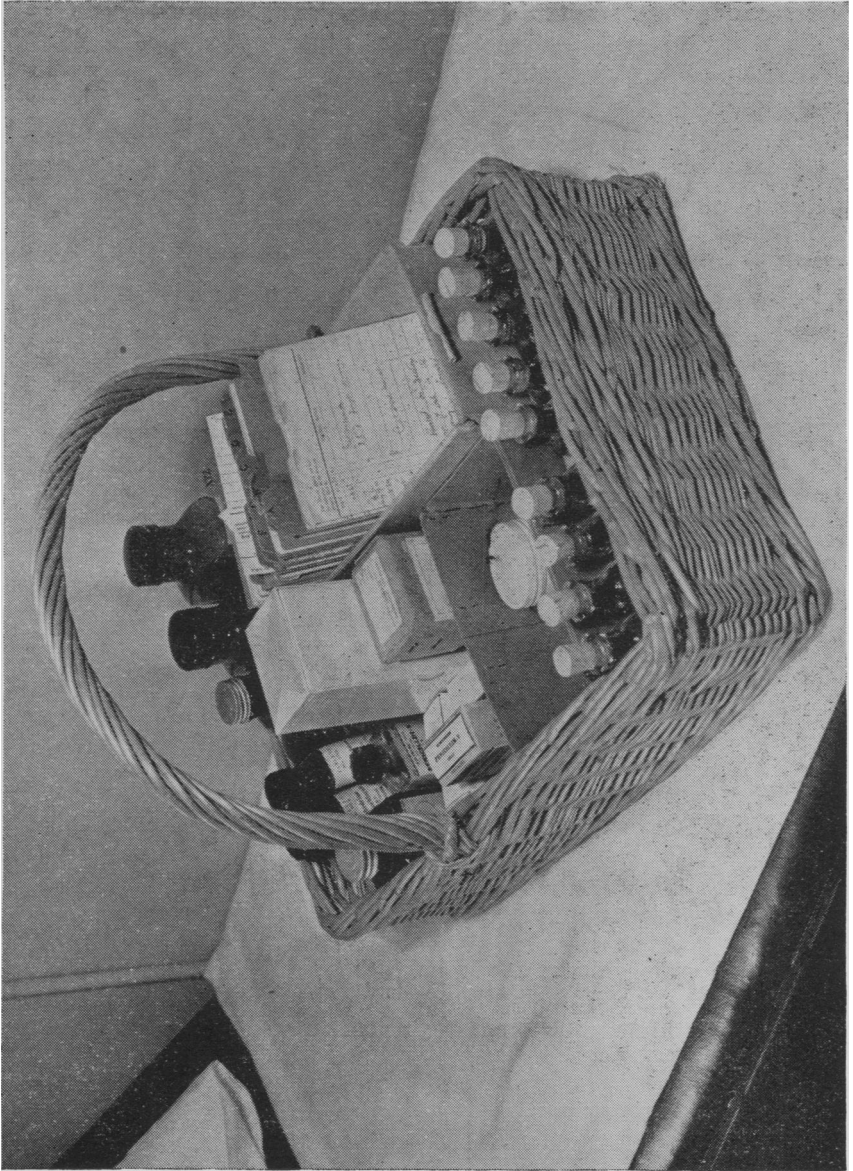


Fig. 5. The Basket

In another division are kept three-ounce bottles of linctus codeine, linctus scillae opiat. pro infant., sulphamezathine suspension, penicillin V suspension; and penicillin V capsules. A third division contains oxalate tubes, slides, dry sterile tubes, oxalate bottles for biochemistry, waxed paper cartons for faeces and sputum, and throat swabs. The third compartment is for the notes of the patients being visited.

Also carried in the car are the metal lithotomy frame, a box containing two transfusion sets, 5 per cent glucose solution and plasmosan. At times the adult and infant scales are carried.

Pathology and Radiology

A few simple pathological tests are done in the surgery:—

<i>Urine</i>	Salicyl-sulphonic acid for protein "Clinitest" for sugar "Acetest" for acetone Microscopy for blood cells
<i>Blood</i>	Westergren method for E.S.R. Stained films

At one time I used the Talqvist scale for haemoglobin, but abandoned it as being dangerously inaccurate.

<i>Faeces</i>	Benzidine method for occult blood
<i>Vaginal swabs</i>	Fresh wet preparations for trichomonas Gram stain for monilia

The other investigations commonly needed are carried out at the hospital laboratory, with the valued co-operation of the pathologist. They include:—

<i>Haematology</i>	Haemoglobin, full counts, white cell counts, blood grouping
<i>Serology</i>	Wasserman and Kahn reactions Paul-Bunnell. Enteric and brucella group agglutinations
<i>Bacteriology</i>	Throat swabs, pus, sputum, faeces, urine, blood culture
<i>Biochemistry</i>	Blood sugar, urea Liver function tests Blood electrolytes

In rural practice it is sometimes difficult to collect specimens and get them to the laboratory. The essentials are a supply of containers, which are collected from the laboratory and kept in the surgery, and the dry sterile syringes. Most specimens are best examined on the day they are collected. Fortunately one of the hospitals in the group is only three miles from the surgery and specimens can be left there in the course of the visiting round, to be conveyed to the laboratory by the hospital's regular transport service. In this way, for example, daily prothrombin estimations can be arranged for the patient on anticoagulants.

The x-ray department of the hospital in the county town is unfortunately unable to examine patients referred by general practitioners. This handicap can be overcome by bringing patients to the medical outpatient department that I attend. The necessary examination is ordered and the films seen and discussed with the physician in charge.

Staff and Clerical Work

For the first year my wife and I ran the practice together without any great difficulty. There was less work and fewer messages to take. Our neighbours very kindly allowed us to run a telephone extension to their house so that we could put the telephone through to them when we went out together. In April 1955 our first baby arrived, the practice was busier and we felt that a third person was

necessary. There was neither the work nor the accommodation in the surgery for a full time secretary-receptionist, but fortunately a friend of my wife could come and live with us and has remained since in the dual role of part-time secretary and mother's help. This has been a most successful arrangement for us all. Her contributions include answering the telephone, taking messages at the door, filing the reports from hospital and laboratory, keeping the surgery tidy and helping with the less technical side of dispensing. This relieves us of the frequent interruptions during the morning when my wife is busy with the baby and I am in the surgery. Since the secretary lives with us she can share much of the work of running the home and caring for the family. My wife and I can go out together in the evening without worrying about either the baby or the telephone.

The clerical side of the practice is kept as simple as possible. The record cards are kept in a four-drawer quarto metal filing cabinet; each drawer takes two rows of notes and about 3,000 cards could be fitted into the four drawers. The cabinet is so disposed that it can be reached from the seat at the desk. During the surgery the record card of each patient is extracted, the next card being raised as a marker and the card returned when the patient leaves. Before the visiting round the record cards for the new calls are transferred from the main file to the subsidiary file in the basket, where they remain until the patient's name is removed from the visiting list. Cards for refiling, together with letters and reports are put on top of the filing cabinet and the secretary files them.

In a wire basket on the filing cabinet are placed medical cards, maternity claim forms and record cards for return to the local executive council, to be dealt with periodically.

Dispensing

Today, when the tablet and injection have usurped the place of the elegant mixture, dispensing is a great deal easier than it was for our grandfathers. The majority of drugs I use are supplied in tablet form; there are a few concentrated stock mixtures bought in bulk and diluted as required, a selection of ointments and numerous ampoules of injection solutions. The drugs are bought from a wholesale chemist who delivers fortnightly. The especially expensive preparations on Appendix to E.C.N. 199 are either supplied to the patient from a small stock which is replenished from the local chemist on prescription, or the patient is given the prescription to collect himself.

The drugs carried in the basket are for patients seen at branch surgeries and at distant visits. Otherwise drugs are left on a table in the hall whence they can be collected at the patient's convenience.

Obstetrics

Attending a woman in her home for a normal confinement is one of the greatest joys that family doctoring has to offer; it is the best antidote to too much minor illness and too many certificates. Two things are essential; one must be well equipped and, so far as careful antenatal care can ensure, the cases booked for home confinement must be normal. The home is not the place for abnormal obstetrics. In my opinion, low forceps delivery and repair of the perineum come within the scope of domiciliary obstetrics, but mid-cavity forceps and more complicated manoeuvres should not be undertaken at home.

I devote Tuesday afternoon to maternity work. Antenatal and postnatal cases are seen by appointment, at quarter-hourly intervals. The district midwife attends. At the first visit a full physical examination is made and blood is taken for haemoglobin, blood group, Wasserman and Kahn. A specially designed record card is used. Subsequently expectant mothers are seen monthly for the first twenty-eight weeks, fortnightly until thirty-six weeks and weekly until delivery. The blood pressure is recorded at each visit and the abdomen examined. At thirty-six weeks the pelvis is examined and a short account of the normal process of labour is given, with reassurance that nothing is being left to chance, and that all modern aids to safe childbirth will be available.

Toxaemia is treated in the early stage; every woman whose blood pressure is 140/90 or higher after five minutes rest on the couch is sent home to bed and examined at home at frequent intervals. If there is any suspicion of disproportion a second opinion is sought from an obstetrician. About half the confinements are conducted at home and half in hospital, but in all cases the antenatal preparation takes place in the surgery.

It has been my practice to be present at all confinements booked at home. The district midwife is always there so I do not have to carry the bowls, basins and dressings that she supplies. The district midwife does most of the deliveries, but there is plenty for a second person to do, helping with the analgesia and keeping up the patient's morale. The district midwife welcomes this, since I am on the spot if medical aid is needed. There are five articles of equipment to carry; the midwifery bag, a dressings drum, a metal lithotomy frame, a trilene inhaler and a lamp.

The Bag

This is a simple chest-of-drawers type with three drawers. In it are carried the necessary instruments, drugs and antiseptics.

The instruments are packed into a tin and sterilized in the hot-air sterilizer. When the tin has cooled it is taped round with adhesive

plaster to make it air-tight and the instruments remain sterile in the tin until needed. This saves time and scalded fingers boiling the equipment on the patient's kitchen stove in the small hours of the morning. The gloves are carried unsterile in another tin; after washing and drying the hands the gloves are put on, washed on the hands and treated with hibitane cream.

The instruments are those necessary for a low forceps delivery and repair of the perineum, using pudendal block anaesthesia. The instruments used are:—

Wrigley's forceps
 Matthieu's needleholders
 Sponge forceps
 Mosquito forceps
 Needles, Mayo, trochar pointed, half circle, size 2
 Needles, curved, triangular pointed, size 7
 Nylon sutures
 Catgut, strength 00
 Syringe, 2 ml.
 Syringe, 20 ml., with 5 inch 24 B.W.G. needle
 Foetal stethoscope
 Rubber apron
 Masks
 Scissors

The drugs and antiseptics:—

Caps. Sodium amytal, gr. 3
 Diamorphine hydrochloride, gr. 1/12
 Lignocaine hydrochloride, 0.5% solution for injection
 Ergometrine maleate, 0.5 mg.
 Lethidrone, 10 mg.
 Atropine, gr. 1/100
 Hibitane, 0.05% solution in 0.5% Cetavlon
 Hibitane cream

The Drum

A nine inch dressings drum is packed with gauze swabs, cotton wool balls, two linen towels, two stainless steel gallipots, a rubber catheter and a mucus aspirator. The drum is sterilized at the hospital. The rubber articles will stand up to three or four exposures to full pressure, but need to be replaced at the first sign of perishing.

The Lamp

This is a portable electric lamp with a spring clip, so that it can be fixed to the back of a chair. A 60 watt bulb gives all the illumination needed.

The Lithotomy Frame

One of the troubles of domiciliary obstetrics is keeping the patient in the right position. The left lateral position is the most convenient for the normal delivery and the safest when a general anaesthetic is used but for low forceps delivery and repair of the perineum under pudendal block the lithotomy position is essential. The lithotomy frame was designed to hold the patient in this position and to fit into any kind of bed. It consists of a horizontal component which slides under the mattress and vertical posts which fit into the horizontal part and hold the patient's feet. The patient lies across the bed with her buttocks at one edge and her weight keeps the whole

thing steady. It prevents the patient sagging into the mattress and, for the accoucheur, takes the backache out of childbirth.

The frame is made of tubular steel and aluminium sheet and was constructed by a local engineering firm to my design (Handfield-Jones, 1956, 1957). The vertical and horizontal parts come apart for carrying and will fit into any small car.

Relationship with Colleagues

The greatest danger of single-handed practice is professional isolation. Unless he takes the trouble to avoid it a man on his own in the country can live as lonely a professional life as if he were on a desert island. His only contacts with the profession are the letters he receives from hospitals about his patients and the occasional meeting; he may never examine a patient together with a colleague or have the chance to keep his wits sharp by discussing cases or just talking shop. Nobody he meets knows enough to contradict him when he talks nonsense, which happens ever more frequently. This leads to premature senility and must be avoided at all costs. Good relationships with colleagues need nurturing at times. The isolation of the general practitioner is as often as not self-inflicted.

I am fortunate in having two of my contemporaries practising in partnership together in the neighbouring market town. They visit us twice a week to see their patients in my surgery, an arrangement as convenient to them as it is pleasant to us, since it offers a regular opportunity to swap clinical stories over the coffee. Eyebrows have been raised at an arrangement which seems to be deliberately encouraging the opposition, but we feel that though we may lose a few patients to them that is a small price to pay and it would be a sad state of affairs if we quarrelled with old friends over a few discontented patients.

An equally happy relationship exists with another practitioner in the market town; we work a rota system between us, doing the emergency calls for a half-day each week and every third week-end. This is the only way in which we can get away from our practices and forget the minor irritations of life. The essentials of a successful rota system have been discussed at length by Stephen Taylor (1954). We work ours by preparing a list of week-ends six months ahead. When we are off duty our telephone is taken by the secretary or by our good neighbours if we are all out together. A notice is put at the gate informing callers that their usual doctor is not available and that Dr X is on call for emergencies. This works well, and patients accept the arrangement. There is a firm agreement that we do not accept any patients on our lists seen while doing a colleague's duty.

The cottage hospital is of the greatest value in bringing us all amicably together. We have the pleasure of looking after our

patients in the hospital and so meet there in the morning around the coffee table with the matron presiding. Several of the practitioners with an interest in a speciality hold clinics to which we send our problems.

It is important to cultivate good relationships with consultant colleagues and easy to fall into mistrust. It is my experience that with the consultants whom I meet at the hospital cordial relations exist. I have always been made most welcome at ward rounds, clinics and case conferences. On Friday morning between 11 a.m. and 1.30 p.m. I attend the medical outpatient department as unofficial honorary clinical assistant, a regular opportunity to keep my wits sharp. This is a session to which I look forward enormously and leave feeling that mental cobwebs have been blown away for another week. At lunch afterwards there is an opportunity to meet other members of the staff.

The colleagues I see least of are the local authority public health staff. This is regrettable and some regular opportunity of meeting them would be of the greatest value. The district nurse is of course a firm friend and ally. In country districts it seems to me that the health visitor has a very limited function. The district nurse who lives in the village is regarded as a native of the place and patients naturally turn to her when needing advice. The health visitor is regarded as a foreigner.

Conclusion

It is now three years since I came to this practice and another thirty will pass before I retire from it. On the foundations that have been laid depend the future, whether it will bring interest, satisfaction and continuing education, or frustration and perhaps a coronary thrombosis at forty-five. I have learned two things above all others; that my peace of mind depends on my patients' good will, and that I cannot work in a hurry. The mistakes I have made and the differences that have arisen with patients have been when I was trying to beat the clock. A list of two thousand in an area of low morbidity might seem to offer little opportunity of having to work in a hurry, but working against time is largely a bad habit and the result of poor organization.

To work unhurriedly to the end of a long day without vexation is to earn the gratitude of one's patients and also to protect oneself against avoidable stress. To me this is the aim of organization.

General practice is the most exacting branch of medicine; it can also be the most exciting and the most rewarding.

It is what the doctor makes it.

REFERENCES

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 Handfield-Jones, R. P. C. (1956). *Lancet*, 2, 498.
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