

## INDIVIDUAL STUDIES

# A STUDY OF THE GENERAL-PRACTITIONER MATERNITY SERVICES\*

Being the report of a fact-finding tour

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*Alresford*

This paper describes information collected on a tour of parts of Scotland and Northern England, undertaken with the object of finding out the state of the general-practice maternity services with special reference to the use of general-practitioner maternity hospital beds. Comparisons are made with the general-practitioner units in Hampshire with which the writer is familiar.

### General Practices

City of York	urban, large practice (3 partners).
Motherwell, Lanarkshire	industrial town—large practice (4 partners).
Dailly, Ayrshire	scattered rural practice (single-handed).
Maryport, Cumberland	town and country practice (2 partners).

### Consultant Units

Royal Maternity Hospital, Rottenrow, Glasgow	Consisting of three units, viz., Professor D. Fyfe Anderson; Professor Ian Donald and Dr. J. Hewitt, with their consultant colleagues and staff (194 beds, plus an annexe of 73).
Central Hospital, Irvine	Mr. R. de Soldenhoff, Mr. G. Forsyth and their staff—112 beds, plus 14 unstaffed.
Overtoun House, Dumbarton	Dr. James Erskine and his G.P. colleagues (a combined unit—25 beds).
Workington Infirmary	Mr. McGlone and his staff (41 beds).

### General-practitioner Units

Overtoun House, Dumbarton (25 beds); Buckreddan, Kilwinning, Ayrshire (33 beds); Kirklandside, Kilmarnock, Ayrshire (39 beds); Thorneyflat, Ayr (18 beds); Davidson, Girvan, Ayrshire (4 beds); Stranraer, Wigtown (14 beds); Struan Lodge, Dunoon (12 beds); Beckford Lodge, Hamilton (34 beds); Queen Mary Maternity Home, Edinburgh (adjoining the Simpson Maternity Pavilion) (12 beds); Maryport, Cumberland (10 beds).

### Antenatal Care

*Arrangements for booking cases; antenatal co-operation; antenatal records.* Where there is no form of consultant supervision,

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requests for hospital confinement are usually made directly to the matron who books a fixed number of cases per month on a first-come basis, and sees the patient only once. There is scant provision for late bookings of "social emergencies". The general practitioner gives all antenatal care, and normally attends the delivery. He does not usually send his antenatal notes to the unit when the patient goes into hospital. This was the pattern at Girvan, Dunoon, Hamilton and Edinburgh.

In Ayrshire, a patient for delivery in hospital (except at Girvan, which is relatively isolated) is seen twice at a consultant clinic; once early in pregnancy, when she is allocated to one of the three general-practitioner units, and once at 36 weeks for assessment. The antenatal notes are kept at the unit concerned. Eight such clinics are scattered over the county. They are held usually in local authority premises, and visited once a week by one of the two consultants or their registrars. (The clinic at Ayr is conducted by an assistant county medical officer of health). Abnormalities detected are referred to the central unit at Irvine, or are watched by further attendances at the clinic. All other antenatal care is given by the family doctor who is expected to refer any abnormality to the next clinic, but who, generally speaking, does not send his antenatal record when the patient is admitted at term. The general practitioner is not always notified when his patient is admitted from the clinic to the antenatal wards at Irvine. Doctors in the Ayrshire units attend most deliveries (but only 30 per cent are so attended at Ayr). They may do low forceps delivery, rupture of the membranes in labour, and suture of the perineum. The matron or sister-in-charge sees that this general plan is adhered to. More major procedures, including manual removal of placentae, are dealt with by specialist staff in the unit concerned, or by (easy) transfer to Irvine. Some 90 per cent of deliveries in Ayrshire take place in hospital.

In Glasgow, only about 58 per cent of confinements take place in hospital. There are no general-practitioner beds in this city of 1½ millions, nor is there a definite prospect of any in the extensive plans for future units. At Rottenrow there is an antenatal clinic every afternoon. The general practitioner refers his patient by letter. The consultant dictates a reply at the first visit. Subsequently the patient may be treated by the hospital, and no details sent to the general practitioner. Conversely, the general practitioner may subsequently attend the patient (e.g., for pyelitis) without informing the hospital of the fact or of his treatment. Sometimes the general practitioner discontinues the hospital treatment and substitutes his own without notifying the hospital.

In Dumbarton, all patients for confinement in hospital are

referred to a clinic run by hospital staff. All antenatal care is thereafter carried out by the clinic, which arranges abnormal admissions to the purely consultant unit at Helensburgh, and relatively normal cases to the mixed unit at Overtoun. The general practitioner may see the patient in addition, as he pleases. He is notified of the patient's admission in labour to Overtoun, and may attend the delivery and carry out procedures similar to those in Ayrshire. In practice, so far as could be ascertained, it is unusual for general practitioners to attend, possibly because there is a resident house-surgeon. It may be useful to note here that the general practitioner at Dumbarton, being at risk for the delivery, is eligible for the full National Health Service maternity fee, provided he sees his patient twice before delivery, and once for a postnatal examination. Much of the antenatal care is, however, already available at the clinic. In York, on the other hand, where there are no general-practitioner beds, patients for confinement in hospital are seen only twice at a consultant clinic, and all other normal antenatal care is given by the general practitioner without receiving any fees at all, following a ruling of the local executive council. This is also understood to be the position in Belfast.

The handling of the antenatal record at York is of interest. Until the patient is due to see the consultant at 36 weeks for assessment, it is kept by the general practitioner: thereafter the patient carries it.

At Stranraer and at Maryport the system of booking and antenatal care is similar to that in Ayrshire. The Stranraer doctors, however, have greater clinical freedom at the time of delivery. Maryport doctors use local authority premises, equipment and records in seeing their district cases. The only doctor found to be using the antenatal card of the College of General Practitioners was at Maryport. He uses it as an additional record, which is placed in the patient's National Health Service file on completion of the case. It is not handled by the patient.

To sum up, the following variations in dealing with hospital confinements were found:

1. Booked with the matron, patient attended by the general practitioner throughout, e.g., Beckford Lodge.
2. Booked at a clinic, patient attended by hospital staff throughout, the general practitioner may not attend delivery in hospital, e.g., Rottenrow.
3. Booked at a clinic; all antenatal care by hospital staff; the general practitioner may attend delivery, e.g., Dumbarton.
4. Booked at a clinic; seen twice by hospital staff; rest of antenatal care by the general practitioner; general practitioner may attend delivery, e.g., Ayrshire.
5. Similar to '4', but the general practitioner may not attend delivery, e.g., York.

In Hampshire, requests for booking on social grounds at the general-practitioner units at Basingstoke (16 beds), Andover (8 beds),

and Alton (17 beds), and for the central consultant unit at Winchester (40 beds), are referred to the county medical officer of health for assessment. The resulting recommendations are sent to the sister-in-charge of the general-practitioner unit concerned, who confirms the bookings. Primigravidae, 'grand' multiparae and patients with minor abnormalities may be booked direct with the sister. The general practitioner carries out the antenatal care, and is expected to send his notes to the unit by the time the patient goes into labour. It is for him to decide whether to refer a patient to one of the two consultants, either at their weekly clinic or in labour.

In Alton, the local general practitioners use hospital records, staff and premises, and local authority midwives are present at their antenatal clinics. The writer gives the patient a college card at her first attendance; midwife and doctor enter their findings on this, and the patient takes it with her to hospital when labour starts. Other rural doctors have a similar routine; some simply use an E.C.8 for their notes.

In Hampshire, generally speaking, it is not so usual as in Scotland for doctors to attend normal confinements at home or in hospital.

This is a convenient point to say that the general-practitioner staff of these units in Hampshire are recognized as being on the staff of the hospital groups concerned; this is effected by exchange of letters with the group secretary. Apparently this does not happen in some of the places visited. This technicality might be important in any legal action for damages.

*Midwives.* In Scotland, the midwife works in close liaison with the general practitioner, but in Hampshire, because of relative lack of liaison, she appears to have greater clinical control of her patient.

*Beds for antenatal use.* The Cranbrook and Montgomery Committees recommend that about 25 per cent of beds be set aside for antenatal patients. In unsupervised units no fixed proportion is set aside, but usage is much less than 25 per cent. No antenatal beds are available to the general-practitioner unit at Edinburgh. Some general practitioners seen were frankly of the opinion that toxæmias rested better at home, where they could keep an eye on other children and control the domestic scene. This is contrary to current teaching.

In Hampshire, following the Cranbrook Report, the Maternity Advisory Committee adopted the 25 per cent recommended, and bookings for confinement were reduced accordingly. This committee which was set up when the National Health Service started

has been most useful, but now requires to meet only about twice a year.

*Blood tests.* These were routine in all supervised units, but in the others were not by any means always so, nor were the results of tests done always available in the unit concerned. In York the general practitioner has to take blood for the (consultant) hospital cases. One general practitioner said that in his practice they did not normally take blood until the last month to save repeating the Rhesus antibody reaction. This detects unexpected anaemia at a very late stage. A consultant reported that he reproached a senior general practitioner with his failure to do a blood test on one particular Rhesus negative patient. He replied, "Well, she has had three normal babies before, so I didn't expect any trouble this time". This is the very type of patient likely to give trouble, both with Rhesus incompatibility and post-partum haemorrhage. Other consultants quoted similar instances, often bitterly. It boils down to the fact that it is a nuisance, when one is busy, to take blood in the surgery or the home, and to see that it gets to the laboratory in a reasonable time.

*Anaemia.* It was interesting to hear of a large number of macrocytic anaemias, probably above 17 per cent in Dumbarton. Some of these presented as mixed anaemias.

*Rhesus negative findings.* It was usual to re-test at about 34 weeks. At Rottenrow the patient is re-tested every week thereafter, partly for research reasons, and partly with a view to induction. The finding of antibodies is significant, but the quantitative estimation not always in proportion. Occasionally, negative antibody findings right up to term have been followed by a severe reaction in the baby.

*Blood transfusion and flying squads.* Arrangements everywhere seemed satisfactory. Most flying squad calls nowadays are to shocked miscarriages.

None of the four general practitioners visited carried a "giving" set or fluids for infusion.

*Miscarriages.* Early recurrent miscarriages are treated at Rottenrow with primolut N. injections twice weekly, or in tablet form. The dosage is based on the pregnanediol excretion. This treatment has superseded progesterone implants. In recurrent miscarriages of the middle trimester where a patulous cervix is found, this is tied up with tantalum wire. The number of cases is small, but I saw in the clinic a patient who had then reached 37 weeks.

*X rays.* The Central Health Services Council's pamphlet on *Antenatal Care Related to Toxaemia* (1956) states:

"An x-ray examination of the chest is always advisable". Most of the Scottish general practitioners did not accept the neces-

sity of this, and of the places visited, only at Maryport is it done as a routine.

In Hampshire, consultants and general practitioners refer their patients to the mass radiography service, which is available from time to time in most centres.

At Stranraer, every primigravida has an x-ray pelvimetry at 36 weeks, and a general practitioner there said that some surprising results are obtained, when compared with pelvic examination.

*Specialist opinion.* This is routine in Ayrshire, Dumbarton, Stranraer and for primigravidae at Maryport. In the other units, consultants see patients by invitation only.

### Toxaemia

*Recognition.* Passing reference has already been made to the Central Health Services Council's pamphlet on *Antenatal Care Related to Toxaemia*. The writer recommends regular re-reading of this important paper, though possibly not all agree with every detail contained in it. In conversation with consultants during the period of this Fellowship, this topic came up again and again. It was with toxaemia in mind that the Cranbrook and Montgomery Committees recommended such a high percentage of antenatal beds. It is quite clear that general practitioners generally are not recognizing and managing this condition at all well. There are apparently a few persistent sinners who, year after year, send in pre-eclamptic emergencies that should have been recognized and admitted weeks before. Even many conscientious general practitioners, who see their patients regularly and often, apparently fail to recognize the significance of the changed findings they record. There was an eclamptic in one of the general-practitioner units visited, but her antenatal notes were not inspected.

In diagnosis, great significance has of recent years been attached to regular weighing. It was interesting to note in the clinics at Rottenrow that there are sometimes very wide variations in the readings from one month to the next, without toxaemia being present. Equally, there may be a rise of blood pressure, and even albuminuria, without any remarkable increase in weight. While increase of weight is not therefore diagnostic in itself, it is extremely important, and is often the first sign.

*Treatment.* Bed-rest and sedatives remain the standard treatment. Low-salt light diet was the rule; the obese were given reducing diets.

Hypotensives were used in most of the consultant units, especially in those cases occurring early in pregnancy; several used apresoline (Roche) and one protoveratrine and serpasil.

The chlorothiazide group of diuretics have a marked early effect on oedema, but the actual weight-loss is transient. One consultant demonstrated this from the case-notes of several patients in his

wards. They are useful, nevertheless. Induction of labour is the main remedy in later pregnancy. One consultant relies almost entirely on rest, sedatives, and puncture of the membranes.

Pre-eclamptic toxæmia remains the largest single cause of foetal mortality. Only by its early recognition and appropriate treatment can those intimately concerned with obstetrics hope to see a reduction.

### Intrapartum Care

*Emergency cover.* In units supervised by consultants, this is not a problem. At Edinburgh the whole professional staff is available literally next door. In most other units some rota system exists. At Dunoon and Basingstoke one doctor is designated medical officer to the unit. This seems by far the best arrangement, giving continuity of care, and giving authority also to advise the matron on other problems that inevitably arise.

### *Analgesia*

*Avoidance of fear.* It was repeatedly emphasized on this visit that where one trusted doctor saw the patient right through, fear was not a big problem. Relaxation classes were available in almost every centre for those who wished to make use of them. Only one general practitioner had used hypnosis—on one patient at Overtoun. The result was very successful, but he had had about 20 sessions with the patient beforehand. This patient did not require anaesthesia for suture of the perineum. One other consultant has used it in a few selected cases, but clearly the value of hypnosis is limited, in present day conditions, by lack of time.

*Drugs.* Pethidine, especially now in the form of pethilorfan, remains the standby. Morphine is still used occasionally in primigravidae. One doctor at Hamilton uses buscopan (Pfizer), and another, welldorm (Smith & Nephew) in a few cases; these are sedatives rather than true analgesics.

*Inhalation analgesia.* Nitrous oxide and air is still the most popular. Several units did not have apparatus for trilene analgesia, but in some of these the general practitioner brings in his own. At the Edinburgh unit, nitrous oxide is not used, only trilene as an adjuvant to pethidine. In one general practice, chloroform is given regularly for the crowning of the head.

*Anaesthesia—general.* Chloroform was the only general anesthetic used in domiciliary work in the practices visited. It was not at all unusual for the doctor to start the anaesthetic and then hand over to the midwife. This also occasionally happened in two of the units visited, though a Boyle's machine was available in each. At Dunoon, the doctors have met and agreed that this need never happen nowadays. One doctor mentioned that induction is easier, and relaxation of the perineal muscles is more readily obtained

with chloroform than gas, oxygen, and trilene or ether. Also, chloroform is non-inflammable.

It is well, however, to remember the special dangers of chloroform: the sudden cardiac failure, especially during induction, and liver damage, especially in dehydrated patients.

The defence societies annually in their reports refer to the undesirability of one doctor acting as surgeon and anaesthetist. There appears then to have been no advance in 100 years in general anaesthesia as practised in the home. When one considers the tremendous advances in specialist anaesthetic work during the past 15 years, it is astonishing that no one should spare time to solve this very ordinary problem.

Nitrous oxide, oxygen and ether, often plus trilene is the usual general anaesthetic for forceps delivery in the general-practitioner units visited, and also in Hampshire.

For external podalic version, scoline is used in consultant hospitals, but there is a risk of subsequent myalgia if the patient gets up too soon afterwards. For this reason chloroform is still used sometimes, if the patient is going home the same day.

*Local Anaesthetics.* Pudendal block was used for forceps delivery in most of the consultant units, in some almost exclusively. One consultant gives in addition the well-known "cocktail", viz. 50mg. phenergan, plus 50mg. largactil, plus 100mg. pethilorfan in 10cc. sterile water, intravenously.

Not all consultants, however, favour local anaesthesia. One experienced teacher remarked to me "You know, after a long labour, the patient longs to be put to sleep".

Pudendal block is seldom used in the general practitioner units visited, or in those in Hampshire, and not at all in any of the general practices seen. Quite a bit of practice is necessary before being certain of a satisfactory result. On the other hand, the simple procedure of local infiltration of the perineum and vulva with 1 per cent xylocaine is of enormous value in the performance and suturing of a episiotomy, and indeed in the application of very low forceps.

#### *Resuscitation*

All units carried oxygen, but not all had an oxygen tent or incubator. Arrangements for premature babies varied widely. Only one general practitioner carried oxygen, in "Sparklet" form, on his rounds.

#### *Wearing of masks*

The matron of one unit did not encourage her staff to wear-masks. She thought that there was at least as much risk of infection from using a dirty mask taken out of the pocket and put on again, and she believed many nurses do this in spite of strict orders to the



contrary. Elsewhere the wearing of masks was a ritual by the nursing staff, but much less so by the doctors, especially the general practitioners.

### Post-Partum Care

*Mother.* It was usual in Scotland to get the mother up to the lavatory within 24 hours, out of bed by the fourth day, and home on the eighth. She was swabbed two or three times daily for the first three days. In Hampshire ten days is the usual stay.

*Babies.* At Overtoun and Workington the cord is clipped and left unbound. Elsewhere it was usual to tie the cord with thread and use powder, a dressing and a binder. No binder is used at Hamilton.

At Maryport and Stranraer the babies are kept in the nursery; elsewhere, with the mother in the day, and in the nursery at night. They are bathed daily in most units. In Professor Donald's unit, babies are bathed only at birth, and on the night before discharge for the instruction of the mother. With this, and avoidance of swabbing by early rising, he claims a big drop in the incidence of infection.

*Family planning.* So far as could be ascertained, this subject is seldom discussed at the postnatal examination or at any other stage. Leaving out those with religious objections, this seems old-fashioned. Mothers want to know about birth control, but are often timid of asking. It was vexing to see once more in the antenatal clinics at Rottenrow, numbers of young women of high parity, poorly spaced, in very indifferent general health.

### Miscellaneous Observations and Impressions

1. *Undergraduate teaching.* So far as was seen, this remains very good indeed. One ward lecture to students on the purpose of antenatal care the writer thought masterly and complete. The wealth of clinical material at Rottenrow is remarkable.

*Private and amenity beds.* This question, incredibly, is still a political plaything. There are no private beds in Ayrshire (350,000 people) nor in Glasgow (1½ millions) under the National Health Service. There are no private general-practitioner maternity hospital beds in Hampshire (2 millions), and only four for consultants at Winchester. The 12 beds at Edinburgh are all amenity beds, at £1 8s. 0d. per day. (The few amenity beds in the new unit at Workington cost only 12s. 6d. per day.)

*Ultrasonics.* Professor Donald is continuing his most interesting experimental work with this diagnostic aid, which he hopes will eventually rival x rays, but without radiation hazards. Some of his results are remarkably good, especially with hydatidiform mole

and early multiple pregnancy. The principle is similar to ASDIC.

*General practice.* Very scant reference seems to have been made to the practices visited. The standard of their work was high, but there was little that was new and so of interest to the reader.

*Bed occupancy.* This varied from 41 per cent at one unit, to 91 per cent recently at Basingstoke. There was only one patient in one fairly large unit at the time of my visit. No useful purpose will be served here by discussing the figures at length. Many factors are involved. It is a great advantage to have the more isolated, smaller units, in the same building as the rest of the local hospital. Staff, and rooms for patients, are then inter-changeable, and the place functions much more smoothly. This seemed to work particularly well at Girvan. There did not seem in practice to be any added infection as a result.

### Conclusions

1. The best all-round standards and results are obtained in units with some form of consultant supervision.
2. In unsupervised units, one general practitioner should be designated medical officer to the unit, with an agreed range of over-all authority.
3. The recognition and management of toxæmia in general practice leaves something to be desired.
4. Antenatal co-operation should be improved, and records made available to colleagues. Many different arrangements are in force.
5. Postnatal clinics should have a closer liaison with the Family Planning Association.

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