

HOME OR HOSPITAL CONFINEMENT?

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We will attempt to answer this question with evidence obtained from a survey of the obstetric work undertaken by one of us (J.D.B.) in his practice, together with those patients, who were delivered in hospital. Facts emerging from this survey will be seen to support our contention that the majority of women could be delivered at home as safely as in hospital.

We have decided to add yet another general practice obstetric survey to the growing literature for the following reasons:

(1) This survey is complete in that it includes all pregnancies occurring over seven years in a general practice irrespective of whether delivery occurred at home or in hospital.

(2) The climate of obstetric opinion has been based upon a comparison of good hospital obstetrics with poor domiciliary obstetrics. We will suggest that good general-practitioner obstetrics closely supported by the consultant obstetric service can go a long way to solving the national problem of the best use of our limited resources.

(3) We hope to strike a balance between the academic attitude of the Royal College of Obstetricians and Gynaecologists and the emotional and financially biased attitude of the general-practitioner obstetricians by pointing the way to dignified co-operation between the two.

The Practice

The survey reviews pregnancies that lasted 28 weeks or more from April 1955 to September 1961 inclusive.

The practice is situated in Essex, 25 miles from London. It is six miles distant and between two towns of about 35,000 population each, and in one of these the obstetric unit is situated. During the early period of the survey the practice rose from a list of 2,400 to 4,000 distributed between two practitioners. In September

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1959 these two practitioners were appointed to a pre-existing practice and were joined by a third partner and the list rose to 5,100. From then until the end of the survey it increased to 5,300.

Until the amalgamation of the two practices nearly all the obstetrics was done by one of the authors (J.D.B.). Since September 1959, the new partner has undertaken all the obstetrics coming from his list. This has resulted in 90 per cent of all the obstetrics cases occurring during the duration of the survey being conducted by one of the authors (J.D.B.). The other ten per cent of cases have been excluded but there is no reason to suppose that they differ significantly from those included in the survey.

The obstetric unit is a specialist unit of about 60 beds. General practitioners have no rights of admitting and treating their own cases in the unit. However, very friendly relations exist between general practitioners and the consultant obstetrician and on occasion a general practitioner who comes in with a case is allowed to perform any operative procedure with assistance from the consultant or resident staff. This unit provides the flying squad. It takes a half hour from the general practitioner initiating the call for the squad to arrive.

Clinical Records

(1) The data have been obtained by analysing the domiciliary records which are kept on an obstetric record card which is in all respects similar to that designed by the College of General Practitioners.

(2) Co-operation cards have been in use throughout the whole period of the survey. From these and from perusal of inpatient notes it has been possible to obtain full details of the labours of the patients confined in hospital.

(3) Details of the labours not attended by the general practitioner were obtained from the records of the midwife.

Antenatal Care

Antenatal clinics are held weekly by the general practitioner with the midwife present, during which both hospital and domiciliary booked patients are examined. The hospital booked patients are seen at the hospital clinic between 12 and 16 weeks for booking. Thereafter, with very few exceptions, the general practitioner provides antenatal care up to the 32nd week; after this the patient attends the hospital and the general-practitioner clinic alternately.

At each attendance the patient is weighed, the blood pressure recorded, urine tested, and routine palpation performed. Blood group, Rhesus factor, and serology is arranged on booking and Hb.

estimation is performed at booking, 32, and 36 weeks.

The general practitioner attend 90 per cent of labours and 72 per cent of deliveries.

Statistics

Table I shows that in this practice the hospital/domiciliary booking rate is the inverse of that recommended in the Cranbrook report.

TABLE I

<i>Place of booking</i>	<i>Hospital</i>		<i>Domiciliary*†</i>		<i>Total</i>	
Primigravidae ..	82		41		123	33·7%
Multigravidae ..	38		202		240	66·3%
TOTAL ..	120	33%	243	67%	363	100%

*18 cases booked for domiciliary confinement were transferred to hospital during pregnancy or labour.

†Included ten delivered in private maternity home.

Complications

These are summarized in table II.

TABLE II

				<i>Place of booking</i>			
				<i>Hospital</i>		<i>Domiciliary</i>	
<i>Complication</i>	<i>No.</i>	<i>Per cent</i>		<i>No.</i>	<i>Per cent</i>	<i>No.</i>	<i>Per cent</i>
Toxaemia ..	23	6·3		20	16·6	3	1·2
Twins ..	3	—		2	—	1	—
Breech*	2	—		2	—	—	—
Brow ..	2	—		—	—	2	—
L.S.C.S. ..	8	2·2		7	5·8	1	—
Forceps..	19	5·2		9	7·5	10	4·1
P.P.H. ..	37	10·2		15	12·5	22	9·1
Stillbirth ..	6	1·6		3	2·4	3	1·2

*In single pregnancies.

The percentages in this table refer to the percentages in the respective series of total, hospital and domiciliary bookings.

Two cases were admitted for postmaturity. Both were treated by surgical induction and both were delivered safely. One had a difficult forceps delivery of a 10 lb. infant. All three cases of antepartum haemorrhage were mild, of doubtful origin and settled on

admission to hospital.

The details of some of the other cases are given below.

Case 1. Primigravida 31 years. At 38 weeks the head was still high and was difficult to push with certainty into the brim. X-ray pelvimetry showed an adequate gynaecoid pelvis with no evidence of disproportion. Labour started spontaneously at 39 weeks but 6 hours after the onset of labour the head was still not engaged. The foetus was presenting as a brow. She was transferred to the care of a London obstetrician 20 miles away and was delivered by caesarean section 3 hours later of a normal infant weighing 7 lb. 14 oz. She has subsequently had a normal vaginal delivery of a larger infant.

Case 2. Multigravida 6, aged 33 years, who booked at 36 weeks and refused hospital confinement. At the first visit, 2 hours after the onset of labour, she was discovered to have a brow presentation. She was transferred to hospital where 2 hours later the brow was converted to a face presentation under general anaesthesia. She subsequently had a normal delivery.

Cases 3 and 4 had prolonged labours. Both were primigravidae 23 and 36 years old respectively. Both were booked against the general practitioner's better judgment as they were very tense and rather self-opinionated. They had primary uterine inertia and were admitted to hospital after 24 hours at home. They both laboured for a further 36 hours after admission although their labours were terminated by spontaneous delivery.

Case 5 was a multigravida 2 who had previously had a spontaneous delivery of an infant of 5 lb. 12 oz. She went into labour at term, had a "niggly" first stage of 17 hours and there was no advance after 1½ hours in the second stage. The vertex was arrested in the deep transverse diameter. While the ambulance was sent for, a tentative attempt was made to rotate the vertex with forceps under pudendal block. This failed and so she was transferred to hospital, where she was delivered of a living male of 7 lb. 4 oz. after a manual rotation under general anaesthesia by one of the authors after she had been in the second stage 3½ hours.

These cases of transfer to hospital demonstrate that many—if not all cases that require the full facilities of a hospital labour ward can be transferred safely to hospital if it is about half an hours ambulance distance away.

Foetal Mortality

There were six stillbirths in the survey, three in each of the hospital and domiciliary services: these were—

Hospital bookings—**Case 6**—unexplained intra-uterine death at 38 weeks; and **Case 7**—twins associated with severe pre-eclamptic toxæmia.

Domiciliary bookings—**Case 8**—obese multigravida 2 refusing hospital booking, developed pre-eclamptic toxæmia and intra-uterine death at 38 weeks. **Case 9**—Primigravida with high head at onset of labour in the 43rd week. Normal labour, multiple intracranial injuries. **Case 10**—Primigravida at 39 weeks, spontaneous delivery of stillborn infant with multiple intracranial injuries. (Full case histories of cases 8, 9 and 10 appear in the appendix.)

The stillbirth rate for the series was 16.3 per 1,000 live births. There were no neonatal deaths. Therefore the combined stillbirth and

neonatal death rate is also 16.3 per 1,000 live births. The comparable figures for the mid-Essex area and for great Britain during the periods are 31.75 per 1,000 and 39 per 1,000 respectively.

Comment and Discussion

The Cranbrook report recommends that in future arrangements should be made for 70 per cent of women "in whose case the balance of advantage appears to favour confinement in hospital" (para. 70 and 329 Cranbrook).¹

Both before and since this report there have been many surveys of domiciliary obstetric practice. The largest of these in recent years is that of the South-west of England Faculty of the College of General Practitioners.² Among 4,277 confinements at home or in general-practitioner maternity units there was a perinatal mortality of 33.9 per 1,000, and it was concluded that it was possible to select a group of cases for hospital confinement which would include 80 per cent of stillbirths and neonatal deaths. McGregor and Martin³ in a rural practice in Scotland concluded that 95 per cent of obstetric practice can be conducted by experienced family doctors. Rees⁴ in a rural practice in Norfolk had a perinatal mortality of 34.2 per 1,000 and referred only five per cent of his patients to a consultant and concluded that the majority of obstetric cases could be cared for by an interested general practitioner. However, none of these papers include details of the patients referred to hospital, though Rees include them in his perinatal mortality figures, and these papers may therefore give a falsely optimistic picture.

On the other hand, the consultant bodies who gave evidence to the Cranbrook committee must have a biased view of domiciliary obstetrics as their experience of it is largely derived from the mistakes of general practitioners and abnormal cases which find their way into hospital.

Although the two "Confidential Enquiries into Maternal Deaths"^{5, 6} have shown that there is a higher incidence of "avoidable factors" in domiciliary booked confinements, all that this demonstrates is that there are some practitioners who are inexperienced in obstetrics or who have not obtained consultant opinion when it was necessary. It does not prove that it is unsafe to have a baby at home.

Reference to table I shows that 67 per cent of this series were booked for domiciliary confinement, yet only 18 or a further 7.4 per cent were transferred to hospital either in pregnancy or during

labour. In the remaining 225 cases, there was a combined still-birth and neonatal death rate of 8.9 per 1,000 live births. This compares favourably with the national figures as does the figure of 16.3 which is the combined stillbirth and neonatal loss for the whole series. The equivalent figure for the mid-Essex area was 31.75 per 1000 births in 1960. Even so, of the women delivered in hospital a very large proportion had normal pregnancy and delivery.

Table II shows that out of 120 patients booked for hospital there were 58 complications. These cases represented a 47 per cent complication rate in the hospital bookings, and many patients had more than one complication. There were 14 patients booked on social grounds. Among the remaining 106 patients, i.e., those who were booked into hospital for obstetric indications, 54 (51 per cent) had a normal pregnancy, labour, and delivery. This despite the fact that 67 per cent of the patients were booked to have their delivery at home. Among those 243 booked for domiciliary confinement 195 (80 per cent) had a normal pregnancy, labour, and delivery. So of the whole series of 349 (363 minus the 14 cases booked on social grounds) pregnancies, 249 (71 per cent) had a completely normal pregnancy. If the assumption is made that all those booked for domiciliary confinement in future will have normal pregnancies, this will result in 55 per cent of all hospital deliveries being quite normal. Although this may be an advantage in the training of pupil midwives and medical students, it must surely be an uneconomic use of hospital beds.

Theobald⁷ at Bradford has shown how an increased use of hospital beds can be achieved by planned premature discharge of normal cases. This is an undoubtedly superior method to that employed by many hospital units, when in periods of emergency, patients are discharged at various stages of the puerperium almost at the houseman's whim. However, it is doubtful whether the Bradford method is a really satisfactory long-term policy as it interrupts continuity of care which is disturbing to both the mother and to the nursing staff.

Toxaemia

There were 23 cases of pre-eclamptic toxaemia, 20 occurring in hospital-booked cases and three in domiciliary cases.

Of the 20 hospital cases 12 were treated by rest alone. Six cases had artificial rupture of membranes. One elderly primigravida of 41 years had an elective lower segment caesarean section at 36 weeks for a moderate toxaemia. The remaining case occurred in a primi-

gravida of 31, who developed fulminating toxæmia at 32 weeks in a diagnosed twin pregnancy. Both twins were stillborn.

The three domiciliary cases were all transferred into hospital at diagnosis. Two were treated by rest and both these went into labour spontaneously and were delivered of premature infants who survived. The third was a gravida 3 who booked late in pregnancy and developed severe toxæmia at 36 weeks. After 2 weeks rest she was surgically induced but was delivered of a stillborn infant. The overall stillbirth rate in these cases was 125 per 1,000 total births, whereas the still birth rate for the whole series was 16.3 per 1,000.

Caesarean section

The indications for caesarean section are listed in table III.

TABLE III

<i>Indication</i>	<i>Number</i>
Contracted pelvis	2
Contracted pelvis with breech	1
Brow in labour	1*
Elderly primigravida and pre-eclamptic toxæmia	2
Placenta prævia	1
Diabetes	1

*This case was booked for domiciliary confinement.

Six cases were elective.

The brow and placenta prævia presented as emergencies.

TABLE IV
FORCEPS DELIVERIES

<i>Indication</i>	<i>Booking for hospital</i>	<i>Booking for home</i>
Delay in 2nd stage	2	6*
Maternal distress	1	2
Foetal distress	3	1
Prematurity	1	—
Deep transverse arrest	2	1†
TOTAL	9	10
Low forceps	5	7
Midcavity forceps	4	3

*One case delivered in hospital by J.D.B. after transfer.

†Delivered in hospital by J.D.B. after transfer.

Forceps deliveries (table IV)

There were 19 forceps deliveries in the series, nine in hospital and ten at home. The overall rate was 5.25 per cent with a domiciliary rate of 4.1 per cent, this included two patients transferred into hospital. One of these was transferred for induction for post-maturity and the other was transferred for failed forceps (*see case 5*).

All domiciliary forceps deliveries were performed under pudendal block. We believe that there is no place for performing in the home any obstetric manoeuvre requiring general anaesthesia, with the exception of manual removal of the placenta, because of the possible occurrence of serious resuscitation problems of both mother and child.

Postpartum haemorrhage and retained placenta

TABLE V

	<i>Booking for hospital</i>	<i>Booking for home</i>	<i>Total</i>
Cases	120	243	363
Post-partum haemorrhage	15	22*	37
Post-partum haemorrhage (per cent)	12.5	9.1	10.1
Retained placenta without post-partum haemorrhage	1	2	3

There was one retained placenta in association with P.P.H. in both hospital and domiciliary series.

*Two of these occurred in hospital after transfer before the onset of labour.

There were 37 cases of P.P.H., 15 in the hospital series and 22 in the domiciliary series. The overall P.P.H. rate was 10.1 per cent, 12.15 per cent in the hospital series and 9.1 per cent in the domiciliary series.

Of the five cases of retained placenta, three were unassociated with P.P.H. Two of these occurred at home and were delivered by simple expulsion and Brandt-Andrews expulsions respectively. The third was delivered in hospital by manual removal of a simply adherent placenta. One case associated with P.P.H. occurred in both the hospital and domiciliary series and both were delivered by simple expulsion.

Intravenous ergometrine at the end of the second stage is not used routinely at home but is used in those cases in which the risk of P.P.H. is thought to be greater than normal—viz. after forceps deliveries, long labours, when the mother appears abnormally tired

and in those grand multiparae who have refused hospital confinement. Ergometrine (0.5 mg.) intramuscularly is used routine at the end of the third stage of labour.

Transferred bookings

Eighteen patients 7.4 per cent were transferred to hospital after booking for home confinement. Eight were transferred during pregnancy and ten were transferred during labour. Of the latter, seven were transferred at the onset of labour and three during labour. Table VI shows the reasons for transfer.

TABLE VI

<i>Indications for transfer</i>	<i>Number</i>	<i>Indications for transfer</i>	<i>Number</i>
<i>In pregnancy</i>		<i>In labour</i>	
Pre-eclampsia.. ..	3 P.2 M.1	Prem. labour ..	3 P.2 M.1
Post-maturity ..	2 P.1 M.1	Antepartum haemorrhage	2 P.1 M.1
Twins	1 M.1	Brow	2 P.1 M.1
Rh. sensitization ..	1 M.1	Prolonged labour ..	2 P.2
Antepartum haemorrhage	1 M.1	Failed forceps ..	1 M.1

The Cranbrook committee's 30 per cent of home confinements represents those patients who wish to have their babies at home and in whom there is no obstetric contraindication as judged by the criteria of Royal College of Obstetricians and Gynaecologists.^{1,8} In the practice reviewed in this paper, where the patients are well housed, where adequate domestic help is available and where the pinch of poverty is rare, the problem is to persuade mothers to have their babies in hospital. The majority of women have a strong desire to share and enjoy this important event with those they love. There is no doubt that having a baby at home brings a family close together and cements the doctor-family relationship. No hospital can compete with what Stabler⁹ says is the "tremendous advantage of family doctors and midwives trying to achieve perfect management—they start with a personal, friendly relationship with their patients. . . . While family doctors may not have the opportunities and facilities of hospital doctors, these facilities are only directed towards the mechanical side of parturition. The family doctor can turn out the coachbuilt Rolls Royce job in contrast to the conveyor belt mass produced job".

The figure of 70 per cent of hospital confinements is based on the Royal College of Obstetricians and Gynaecologists indications for hospital booking with an undefined factor to allow for social indications. Obstetric indications for booking are in effect a very fine net devised to catch a very few fish. They appear to be based on the assumption that general practitioners should never be placed in the position that they should have to exercise their judgment on an obstetric matter. This and the tacit assumption by the Cranbrook committee that social conditions are never going to improve is surely a very defeatist attitude.

From the evidence adduced in this survey it would seem that nearly 70 per cent of women have completely normal pregnancies. It would surely be more logical to organize the obstetric service on the assumption that all would be confined at home unless there were demonstrable departures from normal.

In order to show what would have happened in the present series if such a policy had been in operation, the cases have been classified into five categories, viz.:

- B. Those that must be booked for hospital confinement at their first attendance.
- P. Those which presented complications during pregnancy which warranted admission to hospital or subsequent confinement there, or would have done so if the patient had been booked at home.
- L. Those that presented complications that warranted admission to hospital in labour, or the calling of a Flying Squad, or would have done so if they had been booked at home.
- T. Those with complications of the third stage which might need emergency treatment not easily given at home.
- N. Those which were safely delivered at home after normal pregnancies, or would have been if they had been booked for home confinement.

The cases classified in these categories are shown in tables VII and VIII.

Table IX shows the various categories from tables VII and VIII added together and expressed as percentages of the whole series. It will be seen that 8.0 per cent would be referred to hospital at their first attendance and that 7.4 per cent would need to be referred during pregnancy. A further 7.4 per cent would become abnormal during the first or second stages of labour and could either be transferred into hospital or could be dealt with by a flying squad. There remains those cases in category *T*, i.e., complications during the third stage in which there was no preceding abnormality in pregnancy or labour. There were 31 such complications and these are shown in table X.

TABLE VII

PRIMIGRAVIDAE BY TIMING OF COMPLICATION

<i>Actual place of booking</i>	<i>No. of cases</i>	<i>Indications for hospital booking or type of patient</i>	<i>Outcome of pregnancy</i>	<i>Category</i>
				<i>Percent</i>
H	2	Precious baby	N.P.L.D. & P.	B
H	2	Elderly primip. over 40 years	Elective L.S.C.S.	B 6
H	1	Contracted pelvis	Breech. Elective L.S.C.S.	B 4·8
H	1	Diabetes	Elective L.S.C.S.	B
H	2	*Elderly primigravidae	P.E.T. (1 with twins)	P
H	1	Elderly primigravida	Breech presentation	P
H	1	Elderly primigravida	Postmaturity	P
H	1	Primigravida	Postmaturity. A.R.M.	P 18
D	1	Primigravida	Postmaturity A.R.M. F.D.	P 14·6
H	8	Primigravidae	P.E.T.	P
D	2	Primigravidae	P.E.T.	P
H	1	Primigravida	I.U.D. at 38 weeks	P
H	1	Primigravida	Twins	P
H	1	Elderly primigravida	Premature labour	L
D	2	Primigravidae	Premature labour	L
H	2	Elderly primigravidae	Prolonged labour	L 18
D	1	Elderly primigravida	Prolonged labour	L
H	2	Primigravidae	Prolonged labour	L 14·6
D	1	Primigravida	Prolonged labour	L
D	1	Elderly primigravida	Brow presentation L.S.C.S.	L
H	2	Elderly primigravidae	Forceps delivery	L
H	2	Primigravidae	Forceps delivery	L
D	4	Primigravidae	Forceps delivery	L
H	1	Elderly primigravida	Asphyxiated baby	T
D	2	Primigravidae	Stillbirth, 1 with P.P.H.	T 15
H	1	Elderly primigravida	P.P.H.	T 12·1
H	6	Primigravidae	P.P.H.	T
D	5	Primigravidae	P.P.H.	T
H	4	Elderly primigravidae	N.P.L.D. & P.	N
H	40	Primigravidae	N.P.L.D. & P.	N 66
D	22	Primigravidae	N.P.L.D. & P.	N 54
	123			

*Elderly primigravida is one of 30 years or over.

TABLE VIII
MULTIGRAVIDAE BY TIMING OF COMPLICATION

<i>Where booked</i>	<i>No. of cases</i>	<i>Indication for booking or type of case</i>	<i>Outcome of pregnancy</i>	<i>Category</i>
				<i>Percentage</i>
H	2	Previous L.S.C.S.	L.S.C.S.	B
H	2	Previous L.S.C.S.	N.P.L.D. & P.	B
H	1	Previous A.P.H.	N.P.L.D. & P.	B
H	1	Previous difficult F.D.	F.D.	B
H	1	Previous difficult F.D.	N.P.L.D. & P.	B
H	3	Previous P.P.H.	N.P.L.D. & P.	B
H	1	Previous A.B.O. incompatibility	N.P.L.D. & P.	B 23
H	3	Grande multip.	P.E.T.	B
D	1	Grande multip.	Brow presentation. N.D.	B 9.0
D	1	Grande multip.	Retained placenta. Brandt-Andrews	B
H	3	Grande multip.	N.P.L.D. & P.	B
D	4	Grande multip.	N.P.L.D. & P.	B
H	3	Multiparae	P.E.T.	P
D	1	Multipara	P.E.T. S.B.	P 9
D	1	Multipara	Twins	P
D	1	Multipara	Rh. incompatibility	P 3.7
H	1	Multipara	Acc. A.P.H. L.S.C.S.	P
D	2	Multiparae	Postmature. A.R.M.	P
D	1	Multipara	Premature labour	L
D	3	Multiparae	A.P.H. at onset of labour. N.L. & D.	L 9
H	1	Multipara	F.D.	L 3.7
D	4	Multiparae	F.D.	L
D	13	Multiparae	P.P.H.	T
D	1	Multipara	Secondary P.P.H.	T 16
H	1	Multipara	Retained placenta	T
			Manual removal	6.6
D	1	Multipara	Retained placenta	T
			Simple expulsion	
H	15	Multiparae	N.P.L.D. & P.	N 183
D	168	Multiparae	N.P.L.D. & P.	N 77
	240			

TABLE IX

	<i>B</i> <i>Abnormal</i> <i>at</i> <i>booking</i>	<i>P</i> <i>Abnormal</i> <i>in</i> <i>pregnancy</i>	<i>L</i> <i>Abnormal</i> <i>in</i> <i>labour</i>	<i>T</i> <i>Abnormal</i> <i>in</i> <i>third stage</i>	<i>N</i> <i>Normal</i>
Number ..	29	27	27	31	249
Per cent ..	8.0	7.4	7.4	8.6	68.6

TABLE X

<i>Complication</i>					<i>Primigravida</i>	<i>Multigravida</i>
P.P.H.	20—29	..	..	..	6	8 (c)(b)
Loss in oz.	30—39	..	..	..	7 (a)(b)	4
	40—49	..	..	..	1	1
	50—	..	..	..	0	1 (a)
Retained placenta with no P.P.H.	..	..	..	..	0	2 (e)
Asphyxiated baby	..	..	..	..	1	0

(a) Required transfusion—1 case. (b) Shocked—1 case. (c) Secondary P.P.H.—1 case. (d) Simple expulsion of retained placenta—1 case. (e) Manual removal—1 case.

If these unheralded complications are examined it will be seen that only five cases (1.6 per cent) gave cause for anxiety, viz. three cases of P.P.H., one of whom was shocked but responded to simple treatment, and two who required transfusion; one who needed a manual removal for a simply adherent placenta and one asphyxiated baby. In fact all these patients did well, but it is on these cases that the whole status of the home as a place for safe confinements rests. As has been shown, all the other complications can be transferred into hospital in time for the appropriate action to be taken, or could be dealt with by an adequate flying squad organization.

Postpartum haemorrhage does not present a problem in general practice as (a) the general practitioner obstetrician is in attendance at the majority of cases and is on close call for the remainder, (b) the general-practitioner obstetrician carries transfusion equipment and can give dextran and plasma, (c) a flying squad is able to bring blood within half an hour.

This leaves then only the problem of the asphyxiated baby in need of O₂. There is a school of thought which states that a baby which

does not respond to mouth-to-mouth artificial respiration, is not going to respond to the administration of O_2 as that baby has severe congenital or traumatic damage. Even if this opinion is not correct transportable O_2 giving sets cost no more than £30.

Thus, about 70 per cent of women have no departure from normal at any time during the pregnancy and they could be confined at home. About eight per cent will be booked for hospital at the onset of pregnancy and a further 15 per cent will develop abnormalities during pregnancy or in the first or second stages of labour and these would need to be dealt with by the hospital team either in hospital or by a flying squad. Finally, there are eight per cent who have complications in the third stage and who do not fall into the previous two groups and about an eighth (1.1 per cent of the series) of these will need active treatment. The majority of these can be dealt with by the general practitioner obstetrician, at least in the first instance.

It is realized that such an organization will result in a considerably greater amount of work falling on the district midwife. However, this can be absorbed by part-time nurses who could do some of the maternity nursings and take care of a considerable proportion of the general work of the district-nurse midwife. Theobald⁷ has already shown that this can be arranged and work well. This will result in the district midwife being in charge of a team and may help to restore her status. It will tap the largely unused reservoir of retired nurses, many of whom would like to do some work again.

The reduced number of hospital beds consequent upon such a scheme would result in their and the nursing staff attendant upon them being released for other purposes. As more clinical responsibility would be taken by the general practitioner, the consultant obstetrician and his team would be able to concentrate their skill on those matters in which their experience is really needed, and by the same token it will enable the general-practitioner obstetrician to increase his obstetric experience and skill.

If those proposals were adopted now as the approach to the future, they would allow greater flexibility in dealing with the different social conditions and differing degrees of skill and enthusiasm of general practitioners that exist from place to place at the moment. As such an organization developed it would show that many of those new Cranbrook beds would not be needed.

Surely we must plan ahead and try and envisage the needs of the future. All that the Cranbrook report has done is to suggest remedies

to bring the obstetric services up to the standards of the present day. Tomorrow, however, will show that with improved social conditions women will have forgotten the conditioning advice disseminated by the obstetricians and resolve once more to have their babies at home, where by right this physiological event belongs.

Summary

1. Seven years obstetric work in a general practice is described. 363 hospital and home confinements are reviewed.
2. Women were booked for hospital on 33 per cent of occasions and 67 per cent were confined at home. This is the inverse of the Cranbrook recommendations.
3. The perinatal mortality for the whole series was 16.3 per 1000 live births.
4. Pregnancies were normal in 68.6 per cent of the series.
5. The remaining 31.4 per cent who had complications are analysed and it is shown that, with the exception of postpartum haemorrhage, complications may be dealt with safely by transfer to hospital even when this is done in labour.
6. Anxiety due to postpartum haemorrhage occurred in only four cases (1.1 per cent). This complication can be safely treated if the general practitioner initiates intravenous infusion and is supported by an efficient flying squad.
7. The facts emerging from this survey coupled with the increasing desire for home confinement show the recommendations of the Cranbrook committee to be out of date. It is suggested that the existing hospital facilities would be more than adequate, if a nationwide flying squad service was provided to support the general-practitioner obstetrician.
8. Such a solution of the problem of the obstetric services has the virtue of being cheaper and more expeditious than the long-term hospital building programme inherent in the Cranbrook report.

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APPENDIX

Stillbirths

Case 6. Hospital booking. Primigravida 24 years. Android type of woman. Normal pregnancy with no toxæmia or excessive weight gain. Intra-uterine death at 38 weeks. Induced at 39 weeks. Macerated stillbirth 5 lb. 12 oz. No cause of death found at post mortem.

Case 7. Hospital booking. Primigravida 33 years. Twin pregnancy. Acute onset of severe toxæmia at 32 weeks. Last routine antenatal visit—nothing abnormal detected. Treated with rest etc. Surgical induction at 34 weeks. Both twins stillborn.

Case 8. Domiciliary booking. Multip. 2. 25 years. Came for booking at 26 weeks. Obese. Epileptic. Refused hospital booking. Onset of pre-eclampsia at 36 weeks. Admitted to hospital where she failed to improve. Surgically induced at 38 weeks. Fresh stillbirth.

Case 9. Domiciliary booking. Primigravida 27 years. Spontaneous labour at 42½ weeks despite two simple medical inductions at 42 weeks. Head not engaged 5 days before labour began. Head in mid-cavity at first visit 4 hours after onset of labour. Membranes ruptured at full dilatation with discharge of meconium stained liquor. After 25 minutes in second stage, foetal heart not heard. Fresh stillbirth, 8 lb. First stage 7 hours. Second stage 45 minutes. Subsequent x-ray pelvimetry showed adequate pelvis.

Case 10. Domiciliary booking. Primigravida 25 years. Normal pregnancy. Onset of labour at 39 weeks, with head engaged. First stage 6½ hours. At full dilatation fresh meconium staining and foetal heart rate fell and became irregular. Second stage 25 minutes. Fresh stillbirth, 8 lb. Post mortem—bilateral tentorial tears and much intracranial hæmorrhage.