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The Changing Face of Obstetric Practice and Teaching*

BY

PROFESSOR C. H. G. MACAFEE,
F.R.C.S., F.R.C.O.G.

*Professor of Obstetrics and Gynaecology,
Queen's University, Belfast.*

The art of obstetrics is age-old, but many are the changes which have taken place in the science and practice of the art, especially in the last 25 years. The outstanding obvious changes with which I do not wish to deal at any length are the introduction of chemotherapy, the use of blood transfusion, improved anaesthesia and the general raising of the standard of obstetric care. All these have combined to produce a reduction in foetal and maternal mortality.

Obstetric practice, for generations the concern of the family doctor, has in some areas again fallen into the hands of midwives, until in England and Wales about 80 per cent. of the cases come under their care. Consultant practice, too, has altered over the same period. In former times the family doctor referred only those cases in which he anticipated abnormality or undue difficulty, and these often at a late stage in pregnancy. For a number of years it has become customary for the family doctor to refer every type of case from the earliest weeks of pregnancy. Possibly two factors can be cited as a reason for this change.

In the first place before the last war many doctors had given up or materially reduced their midwifery practice. Such doctors chose to refer their cases either to hospital or to a consultant rather than to another family doctor.

The second important influence was the demand on the part of the general public for institutional midwifery, either public or private,

rather than for the traditional domiciliary confinement.

The Health Act of 1948, however, has tended to encourage the resumption of domiciliary practice, but how far the pendulum will swing remains to be seen.

My personal feeling is that if the family doctor wants to return in strength to the obstetric field, this is his opportunity, provided he recognises his responsibilities, appreciates the changes that have occurred and equips himself accordingly.

From the point of view of the obstetrician, whether consultant or family doctor, certain notable changes in the clinical course of pregnancy and labour and the increased facilities for additional help if necessary have made obstetrics an easier if not less exacting branch of medicine.

When Ballantyne instituted prenatal care he opposed the notification of pregnancy, but he thought "that a small sum of money might usefully be offered to women giving early notice of confinement." This principle of bribery has been employed in a more subtle fashion in recent times. The introduction of a Bill before Parliament to make the notification of pregnancy compulsory would almost certainly have met with defeat, but during the last war the necessity for making arrangements for the confinement early in pregnancy and the lure of extra rations and clothing coupons tore the veil of secrecy to ribbons. Gone was the false modesty of the Victorian and Edwardian eras. The expectant mother not only notified her doctor, but also her butcher, grocer and milkman.

This altered attitude of the patient towards pregnancy is one of the important advances of our time and may be responsible, among other things, for the noticeable decrease in *hyperemesis gravidarum*.

The pregnant woman of to-day realises the value of antenatal care and does not hesitate to present herself at an early stage for supervision by her doctor or nurse. The regular supervision by her attendant is also of inestimable psychological benefit to the patient and rapidly estab-

* An address delivered in Salisbury to the Mashonaland Branch of the British Medical Association, February, 1956.

lishes a mutual understanding from which the patient derives confidence, an essential factor in the successful outcome of labour.

The medical advantages of antenatal care are too well known to require elaboration. It is regrettable that on many occasions so-called antenatal care is poor and is of such a standard that the benefits both from the psychological and medical aspects are lost. This criticism applies to both hospital and private practice.

In hospital the clinics are too large, too busy and too hurried for time to be given to the psychological approach.

On the other hand, the patient admitted with eclampsia who has not had her urine tested for three weeks may have complete confidence in her doctor, but has obviously not received good antenatal care.

The noteworthy fall in maternal mortality and the more general use of sedatives and analgesics have done much to allay the dread of childbirth in the mind of the lay public. This brings me to the next noteworthy change—the alteration in the clinical course of labour. The duration of labour in primigravidae has become appreciably shorter in the last twenty years. For a number of years I have taught that if a primigravida is not approaching the second stage of labour at the end of twelve hours, one should review the case most carefully to see what factor or abnormality has been overlooked.

That the duration of labour at first confinements has shortened is not entirely a personal observation, as it has been mentioned to me on several occasions by family doctors.

In order to confirm this clinical impression I reviewed for the purpose of this paper approximately 3,000 case sheets of patients delivered in the Royal Maternity Hospital, Belfast, and private patients whom I attended personally in the private block of this hospital.

Table 1

| PRIVATE | | |
|----------|------------------|------------------|
| Year | Primigravidae | Multiparae |
| 1938-39 | 19 hrs. 33 mins. | 8 hrs. 39 mins. |
| 1940 | 19 hrs. 37 mins. | 8 hrs. 50 mins. |
| 1950 | 15 hrs. 8 mins. | 8 hrs. 32 mins. |
| 1951-52 | 13 hrs. 36 mins. | 9 hrs. 3 mins. |
| 1953-54 | 12 hrs. 52 mins. | 4 hrs. 40 mins. |
| HOSPITAL | | |
| 1938 | 27 hrs. 50 mins. | 11 hrs. 4 mins. |
| 1939 | 22 hrs. 20 mins. | 9 hrs. 37 mins. |
| 1940 | 22 hrs. 26 mins. | 10 hrs. 57 mins. |
| 1954 | 16 hrs. 52 mins. | 10 hrs. 45 mins. |

I realise only too well the fallacies associated with estimating the duration of labour, and for

that reason I have not used any private case attended at home or in nursing homes. Any errors which may be present are common to all the cases, and the times have been recorded by nursing sisters of similar training and experience. It will be noted that the duration of labour in both primigravidae and multiparae is shorter in the private patients than those delivered in the public part of the hospital. There is, however, an obvious explanation, namely, that the majority of private patients had normal confinements or low forceps deliveries, whereas the hospital series is made up of patients in many of whom abnormalities were present or some difficulty was anticipated.

The times given in Table 1 include the third stage of labour, and it will be noted that since 1938 the average duration of labour in the private primigravida has been reduced from just over 19 to just under 13 hours. It would therefore appear that the normal primigravida of to-day can expect a duration of labour which her grandmother or mother could only hope for at her second or third confinement.

Even in the hospital patients there is an appreciable reduction in the duration of labour, in spite of the high proportion of associated obstetrical or medical complications.

Uterine inertia is frequently stated to be a cause of prolonged labour. It may be a clinical entity, but I often wonder is it not a red flag being waved to warn us of some undetected abnormality—for example, a minor degree of disproportion. Certainly a similar clinical syndrome can be produced by the misuse of sedatives and analgesics.

I cannot agree with the statements in textbooks regarding breech presentation. It is my belief and experience that the breech is a good dilator, particularly when the legs are extended, and when the breech delivery is going to be successful *per vias naturales* the duration of labour is shorter than in the normal vertex presentation. Moderate or severe disproportion of course can interfere with the progress of labour in the breech presentation just as it does with a vertex presentation. I further hold that, when one is supervising the primigravida with a breech presentation, the case must be reviewed at the end of eight to ten hours of labour if the first stage is not completed or almost completed. I, therefore, cannot endorse the statements in *Midwifery*, by Ten Teachers, published last year. "The course of labour may be prolonged and difficult, especially in primigravidae, for the following reasons:—

- "(1) The breech is less efficient than the head in dilating the cervix and stimulating uterine contractions.
- "(2) The extended breech undergoes lateral flexion with some difficulty because of the splinting effect of the extended legs. . . ."

It is also stated that the foetal mortality is greater when the legs are extended.

I am indebted to Mr. G. B. Gibson, lately my university lecturer, for investigating the duration of labour in a large series of breech presentations delivered in the Royal Maternity and Jubilee Maternity Hospitals, Belfast.

He found that the average duration of labour both in primigravidae and multiparae delivered *per vias naturales* was exactly the same, namely, eleven hours. If this is true, and I am convinced it is, then a trial of labour in breech presentation is justified in the absence of other obvious complications such as gross pelvic contraction. I do not think that the clinical test of the progress of labour in the first eight to ten hours in a breech presentation in a primigravida has ever let me down. If the labour is going to terminate easily and successfully *per vaginam*, then the uterine contractions are occurring regularly, the cervix dilates rapidly and the breech descends on to the pelvic floor. Contrary to the teaching already quoted, the presence of extended legs is an advantage rather than a disadvantage, especially in a primigravida.

I have recently learnt that the late McIntosh Marshall since 1945 had advocated trial of labour in breech presentation. Cox (1955), one of Marshall's pupils, states that "trial of labour in the modern sense, where progress is assessed after some hours of strong uterine contractions, is quite reasonable. If the breech engages in the pelvic brim, the cervix dilates rapidly and full dilatation occurs within the normal duration of labour, the outcome will be favourable." I can only say how strongly I support his views, but would be inclined to put a time limit of 12 hours on the duration of labour.

I would draw attention to the following sentence in the last edition of *Operative Obstetrics*, by Munro Kerr and Moir: "The personal experience of the obstetrician is the most important single factor in determining the safety or otherwise of the breech delivery." In the event of a stillbirth at a breech delivery it only requires a cantankerous husband and an able lawyer to use that sentence on one occasion to make every breech in a primigravida a possible legal liability. A breech delivery in a primigravida should be conducted with all available assistance

and preferably in a well-equipped institution, because there is no doubt that a higher proportion of these cases require skilled intervention.

Why the duration of labour has diminished is hard to say. There are probably many factors accounting for this change, but it is possible that the most important is one which I have already mentioned, that is, the altered attitude of the patient herself towards pregnancy and labour.

The past twenty years have seen the gradual disappearance of a misconception, prevalent among the lay public and some members of the medical profession, that every qualified practitioner is sufficiently trained to carry out single-handed any obstetrical operation. Now, if he should seek the assistance of an anaesthetist or a consultant colleague, it is not regarded as a reflection on his skill, but rather as evidence of his good judgment.

The development of what is popularly referred to in the United Kingdom as the "Flying Squad" has provided additional assistance at short notice for every general practitioner within distances of 25 to 100 miles from each teaching centre. This service, inaugurated in Newcastle-on-Tyne, is now almost a national institution, and the number of lives which have been saved as the result of it cannot be assessed. This unit consists of a house officer who gives a blood transfusion, a nurse and an anaesthetist with a consultant obstetrician. It carries to the patient the hospital service, rather than transporting an ill patient to the hospital.

There is no excuse nowadays for failed forceps, for making vaginal examinations on cases of antepartum haemorrhage in the patient's own home, or for trying to deal with malpresentations single-handed. The consultant service is available and is now being utilised.

The next noteworthy change is the improved facilities for dealing with complications associated with the third stage of labour. The discovery of ergometrine, the availability of a Flying Squad in almost every area and the liberal supply of blood must have relieved many doctors of the anxiety associated with the third stage in the past. However, it is regrettable to find that in the Registrar General's report (1953), 51 women, or almost one woman per week, died from *postpartum* haemorrhage in England and Wales. How much longer will it be before *postpartum* haemorrhage is eliminated from the maternal mortality figures?

A few weeks ago I had a letter from a former house surgeon now practising in the south of England. She wrote the following sentence

which to a large extent confirms all I have said: "As far as I can see, if one can deal with a *postpartum* haemorrhage and a breech the rest of midwifery in general practice is common sense and knowing what to get rid of before term to consultant care."

The virtual disappearance of puerperal sepsis since 1937 has removed one of the great bugbears of obstetric practice. There are indications, however, that the return of this scourge is not beyond the bounds of possibility.

The abuse of antibiotics by all branches of the profession has now produced so many resistant organisms that the risk of sepsis is as great as ever if our aseptic and antiseptic precautions are relaxed.

Occasionally one sees a case reminiscent of the days when puerperal sepsis was common, and here the termination is as fulminant as ever, even with antibiotic treatment. It may not be significant, but in England and Wales in 1952, 61 women are recorded as having died from puerperal sepsis. In 1953 there were 71 such deaths.

It is most difficult to impress the dangers of puerperal sepsis on students and junior resident staff. Many of them have never seen cases of puerperal sepsis with which doctors of my generation were only too familiar, and they sometimes tend to be careless regarding their aseptic technique because they feel that antibiotics will cure any infection. I would not like my audience to think that I do not approve of the use of antibiotics, but I feel much safer if I do not require to use them. We have seen and heard of many complications and even fatalities associated with their use and abuse.

The changes which I have mentioned have altered the outlook of the obstetrician, both the consultant and the general practitioner. While it is a fact that avoidable maternal deaths still occur and a further reduction in the maternal mortality rate is possible, it is gratifying to realise that this rate is approaching an irreducible minimum.

Greater attention is now being paid to associated medical diseases, e.g., anaemia and cardiac disease, and to reducing the number of stillbirths and neonatal deaths. Neonatal deaths are to a large extent the concern of the paediatrician, but we obstetricians must endeavour to avoid providing them with an impossible task. If we can reduce the numbers of grossly premature infants, then modern paediatric nursing technique can work wonders.

Intrauterine and *intrapartum* deaths are most frequently associated with hypertension,

toxaemia, *ante partum* haemorrhage and rhesus incompatibility. Much has been done to reduce the foetal mortality, but more could be achieved.

Pre-eclamptic toxaemia has been associated with a high foetal mortality, partly on account of the risk of intrauterine death, but also as the result of premature induction of labour. It has been taught that it is a mistake to prolong the pregnancy for more than three weeks from the onset of toxaemia because of the risk of permanent damage in the nature of chronic renal disease or persistent hypertension.

Since 1945 we have not subscribed to this view and we endeavour to carry on the pregnancy to as near full term as possible. From 1946 to 1950 there were 1,420 cases of pre-eclamptic toxaemia, hypertension and chronic nephritis treated in the Royal Maternity Hospital, Belfast. Of these cases, 1,355 have been reviewed by Mr. Gibson and myself, and from the follow-up it would appear that evidence suggesting permanent residual damage does not depend on the severity of the toxaemia or on the duration of treatment between the onset of toxaemia and the induction of labour.

Table II

| | | |
|-----------------------------------|-------|----------|
| Less than 7 days' treatment | 25.8% | affected |
| 7-13 days' treatment | 34.4% | " |
| Over 13 days | 32.8% | " |
| Mild cases | 25.0% | " |
| Moderate cases | 34.1% | " |
| Severe cases | 32.6% | " |

Evidence of permanent residual damage depended on the presence of hypertension and/or albuminuria three to five years after the pregnancy which was associated with toxaemia.

The time at which labour is induced does, however, seem to have some bearing on the foetal mortality rate. From the figures already published by Mr. Gibbon it would appear that in the interest of the baby it is safer to induce labour somewhere between 35 and 37 weeks. If one tries to carry on a toxaemic pregnancy to 39 to 40 weeks there is a gradually increasing foetal loss.

When we consider *ante partum* haemorrhage we find that as far as *placenta praevia* is concerned much has been done all over the United Kingdom to reduce both the foetal and maternal mortality associated with this complication.

If one looks at Table III, which gives the figures for three collected series, there can be little doubt about the change since 1936, but there is still room for improvement. Too many cases of *placenta praevia* are still being treated too early to secure viable babies, and this is

Table III

The Reduction in Maternal and Foetal Mortality since 1936 in Antepartum Haemorrhage from Placenta Praevia.

| <i>Author</i> | <i>Number of Cases</i> | <i>Foetal Mortality</i> | <i>Maternal Mortality</i> |
|----------------------|------------------------|-------------------------|---------------------------|
| Berkley (1936) | 4,580 | 59.0 per cent. | 7.0 per cent. |
| Browne (1944) | 3,103 | 54.0 per cent. | 5.9 per cent. |
| Macafee (1954) | 1,553 | 22.9 per cent. | 0.9 per cent. |

largely due to the patient being submitted to a vaginal examination before admission to hospital.

If we look at Table IV which analyses the series I personally collected from available hospital reports one can compare the results from

out that 25 of the 70 patients, or more than one-third, had their first haemorrhage before the thirtieth week. The minimum time between admission and treatment of these 25 patients was 12 days and all were delivered of live

Table IV

Comparison of Foetal and Maternal Mortality in Placenta Praevia Receiving Conservative Treatment.

| <i>Group</i> | <i>Number Receiving Conservative Treatment</i> | <i>Foetal Mortality in Cases Treated Conservatively</i> | <i>Maternal Mortality in Cases Treated Conservatively</i> |
|--------------------|--|---|---|
| 1553 | 257 (16.5 per cent.) | 14.7 per cent. | 0.79 per cent. |
| 1353 | 187 (13.8 per cent.) | 20.8 per cent. | 1.07 per cent. |
| 200 (R.M.H.) | 70 (35.0 per cent.) | 8.5 per cent. | — |

a hospital where a high percentage of cases receive conservative treatment with those where the percentage is lower.

To show that these 70 cases were not loaded favourably with mature babies I would point

babies. Unfortunately three of these babies died in the neonatal period, but even in this unfavourable group the foetal mortality was only 12 per cent.

Table V ENGLAND AND WALES

Improvement in Maternal Mortality in Placenta Praevia (1942-1952).

| <i>Year</i> | <i>Total Deaths</i> | <i>Deaths During Pregnancy</i> | <i>Deaths During or After Labour</i> |
|--------------------|---------------------|--------------------------------|--------------------------------------|
| 1942 | 68 | 10 | 58 |
| 1943 | 64 | 11 | 53 |
| 1944 | 66 | 10 | 56 |
| 1945 | 50 | 6 | 44 |
| 1946 | 60 | 15 | 45 |
| 1947 | 41 | 5 | 36 |
| 1948 | 36 | 3 | 33 |
| 1949 | 22 | 6 | 16 |
| 1950 | 24 | 9 | 15 |
| 1951 | 29 | 3 | 26 |
| 1952 | 15 | 1 | 14 |
| Total | 475 | 79 | 396 |

Of the 200 cases treated in the Royal Maternity Hospital from 1946 to December, 1953, the uncorrected foetal and neonatal death rate was 12 per cent. The details of these 200 cases were published by Dr. Grant from my department in the August number of the *Journal of Obstetrics and Gynaecology of the British Empire*. I understand from Mr. Stallworthy that in Oxford they have managed to reduce the foetal mortality to 10 per cent.

The Belfast figures could only have been obtained by close co-operation with the family doctors. They know that they have only to say that their patient has had an *ante-partum* haemorrhage to secure her admission to hospital, however acute the bed situation may be. Following her admission, it is our responsibility to decide for how long that patient must remain.

This service has never been abused, but we would prefer to have it abused rather than have the patients examined vaginally before admission.

Though it is not strictly relevant at this stage, I would like to point out the improvement in the maternal mortality, in association with *placenta praevia*, which has taken place over the years from 1942-52 as illustrated from the table of the Registrar General's reports:—

I regret to say that in 1953, according to the Registrar General's report, 33 women died in England and Wales as a result of *ante-partum* haemorrhage due to *placenta praevia*.

While some progress has been made in dealing with *placenta praevia*, it is another story when we look at accidental haemorrhage. I am indebted to Dr. Grant of my department for the following, as yet unpublished, figures.

In the years 1943-1951 inclusive there were 360 cases of accidental haemorrhage treated at the Royal Maternity Hospital. Of these cases, 115 or 31.9 per cent. were of the toxic and 245 or 68.1 per cent. of the non-toxic type.

Table VI ACCIDENTAL HAEMORRHAGE (360 CASES)

| Type | No. of Cases | Percentage | Foetal Mortality | Recurrent Haemorrhage |
|-----------|--------------|----------------|---------------------|-----------------------|
| Toxic | 115 | 31.9 per cent. | 73 (63.5 per cent.) | 25 per cent. |
| Non-toxic | 245 | 68.1 per cent. | 67 (27.3 per cent.) | 29 per cent. |

If one looks at Table VI it is obvious that accidental haemorrhage of either type is more serious for the baby than *placenta praevia* treated on modern lines.

I must therefore disagree with those who advocate placentography in all cases of *ante-partum* haemorrhage with the object of allowing

the patient to return home if a *placenta praevia* or toxic accidental haemorrhage can be excluded.

Percival and Murray, in a recent paper in the *Lancet*, state: "Soft tissue placentography can greatly reduce such use of valuable beds; in non-toxic accidental haemorrhage, once *placenta praevia* has been excluded and bleeding has ceased, the patient can safely be sent home."

When one sees that non-toxic accidental haemorrhage is associated with a foetal mortality of nearly 30 per cent. and that 29 per cent. have recurrent haemorrhages, it is surely essential that these patients should be admitted for careful assessment. In a recent review of the foetal mortality in our hospital the two varieties of accidental haemorrhage accounted for one-third of the babies lost.

In my experience the greatest advantage of accurate placentography is to diagnose the situation of the placenta before haemorrhage has occurred or where the amount of blood loss has been small. Placentography will, however, frequently fail to demonstrate the presence of a placenta membranacea in the lower segment, and I have allowed a patient to go home for family reasons on the strength of placentography and a head engaged in the pelvic brim, to have her re-admitted a few days later with *ante-partum* haemorrhage and requiring a caesarean section.

TEACHING

How have these changes in practice affected the teaching of the subject?

The ideal method of training the student is to allocate antenatal patients to him so that he can follow them through labour and the puerperium. This of course is only possible in a modified way while the student is in residence. He thus gains the maximum benefit of seeing the patient at all stages. In many cases, however, the first occasion on which the student sees the patient is at the termination of the second stage,

which allows him to count a case without learning very much.

In the modern antenatal ward the student should be able to add to his knowledge of general medicine. On a recent occasion our antenatal ward contained patients suffering from megaloblastic anaemia, Addison's disease, chronic nephritis, congenital cystic kidney, diabetes,

cardiac disease, hypertension, cerebral tumour, and in a separate ward in the same hospital we accept pregnant women suffering from pulmonary tuberculosis.

If such cases are allocated to students and discussed on ward rounds with the other members of the small resident class, it is a valuable addition to their general medical training.

The altered attitude towards the treatment of obstetric complications in domiciliary midwifery has made a difference in what students are or should be taught.

More stress is laid on normal labour. If the student or doctor can recognise at an early stage the departure from normal and is prepared to recognise his operative limitations and seek assistance early, fewer stillbirths and damaging deliveries would result.

This change in teaching has led to the view that doctors who intend to practise obstetrics in general practice should have postgraduate training in this branch of medicine.

While this view has no legal support, it is one which, to a large extent, has been supported by the younger members of the profession and of course by the Royal College of Obstetricians and Gynaecologists. The College instituted its diploma with the express object of conferring upon those doctors who have acquired this extra six months' training a diploma whereby they can be recognised.

Few will disagree that the foundation of the College in 1929 was one of the greatest influences in improving the standard of obstetric practice and teaching, not only in the United Kingdom, but throughout the Commonwealth.

While the College has advocated 90 per cent. institutional confinements, there are many who would not agree with this attitude and who still believe that for the normal case a domiciliary confinement is not only happier for the mother, but safer for the child. It is possible that for a long time there will be a high percentage of domiciliary confinements. How is the student and the recently qualified practitioner who is studying for his diploma to acquire experience in domiciliary midwifery? The National Health Service Act to a large extent abolished the district midwifery associated with teaching hospitals, and thus removed a valuable source of clinical experience and training which the student and resident doctor could acquire. Can this source of training be replaced? I believe it can, and this is where the family doctor can play a most important part as member of a university departmental team.

About three years ago I suggested that the university should enlist the assistance of a certain number of family doctors who had large domiciliary midwifery practices to help in the training of medical students. This advice was accepted by the Senate and Academic Council and four family doctors were appointed as clinical lecturers.

These doctors have been most co-operative and helpful in taking students out to district cases, although to do this has meant a great deal of extra time and trouble on their part and I feared might make too great a demand on their already overcrowded days. The results of this co-operation have been interesting. The most junior member of the team of family doctors had some difficulty in the first year because of the opposition of a rather senior midwife on whom he was dependent for a great deal of his work, but whose standards were not of the highest. The sister tutors whose pupils were taking cases on the district with midwives for their Part II training objected to the invasion of territory of which they considered they had a monopoly, and this was a more difficult matter with which to deal.

Some of my professorial colleagues in other teaching centres were apprehensive of the experiment, as they felt the students might be taught bad techniques and habits. Fortunately the family doctors concerned were men whose standard of work was high, whose methods were good and capable of adaptation to the existing circumstances, and who were never afraid to ask for advice, though they rarely required it.

The reaction of these doctors to the scheme was surprisingly good. They stated that although this added considerably to the amount of work and time expended, they not only enjoyed doing it, but learnt a great deal from the students. They stated that they had to renew their knowledge of the textbooks to their great advantage. Their other comment was that the presence of the student was a great advantage to them personally, because in the event of any unforeseen complication the doctor had an additional pair of responsible hands upon which he could call either for assistance or to secure assistance. They were also interesting in their comments regarding the midwives. The midwives were, as I have mentioned, somewhat opposed to the scheme, but most of those concerned are now co-operative, and one doctor told me that the presence of the student had undoubtedly raised the standards of the midwives. He said that when the nurse knew that a student was to be present she was far more particular about

how things were prepared than when he was alone.

The doctors also felt in a more secure position, as they had all the resources of a teaching hospital behind them, and naturally those working in the hospital appreciated their increased responsibility to these doctors.

From the students' viewpoint they were most appreciative, not only of the experience, limited though it necessarily must be, but of the trouble that the doctor took to help and teach them. It was most interesting to watch the relationship between the student and the family doctor gradually develop, until now the student is being regarded and treated as a useful member of the family doctor's team.

Recently one of my students who had completed his two months' residence in the Royal Maternity Hospital, Belfast, went to another maternity hospital to gain extra experience in domiciliary midwifery. He wrote to me stating that he felt he had learnt more from the few cases he had done with one of the four doctors who collaborate with me than he had on the district of a very large teaching hospital. What pleased me even more was that not only did the student write to me, but, without any prompting from me, also wrote to the family doctor whom he mentioned in his letter, giving him all the details and thanking him for the good instruction he had received.

Each year before the student starts on his practical midwifery one of these four doctors gives one or more lectures on midwifery in general practice to the large systematic lecture class. In these lectures he not only covers the purely practical aspect of antenatal care and conduct of labour, but tells the student about the family doctor's relationship with hospitals and public health authorities. In this way the student gets an insight into the pleasures and difficulties of general practice at an early stage and can appreciate the position of the family doctor when he becomes a resident doctor in hospital. This is very necessary because there is a type of young hospital house officer who, when speaking to a family doctor on the telephone, is inclined to regard that doctor not as a colleague, but as an inferior being who is trying to double-cross him about getting patients admitted to hospital.

If I may now interpose a sentence from my ex-house surgeon's letter to which I have already referred: "It is funny how, when I was a student, I, like everyone else in my year, despised the very thought of being a general practitioner, and now that I am one I can think of

no more satisfying or interesting job in the whole profession."

In addition to the family doctors I have the benefit of the help of a doctor from the Public Health Department working with me in my antenatal outpatient, and a health visitor who goes round my lying-in ward with me and the Professor of Child Health once a week. This allows me to secure many of the facilities which the Public Health Department provide, such as instruction on mothercraft, breast feeding, relaxation exercises and the after-care in co-operation with the patient's own doctor. The doctor from the Public Health Department also instructs the students in residence and takes them to her own antenatal clinics in other parts of the city.

The qualified house officer does not get much opportunity even now of having to deal with normal domiciliary midwifery. He of course forms part of the Flying Squad team and, while this is valuable, it only presents a particular and specialised aspect.

The ideal would be to be able to second a house officer to work with a family doctor, who practised obstetrics, for, say, three months so that he could get an insight into the methods which must be employed in such circumstances. Then he must be able to adapt the methods and facilities to which he has become accustomed in hospital to the altered surroundings in the patient's own home.

In the teaching of undergraduates there is still not enough supervision of the students training by members of the university departments. This applies more to the large than to the small medical school. In the schools which cannot provide all the clinical training for their students it is impossible for the head of the department and his team to be responsible for what is taught when his students must go to other hospitals, perhaps outside his own city, to receive their training in practical obstetrics.

There is a tendency among some teachers and many students to regard obstetrics as a question of delivering a baby and placenta. Students and teachers sometimes forget that pregnancy is a most interesting physiological process closely allied with medicine, the management of labour may require great judgment and at times operative dexterity, and the puerperium with the addition of the baby has its own interests.

Your natural criticism of this review will be that it is all very well for someone in a small country to talk in this way, but that the problem of improving maternal and foetal mortality in this country presents a very different problem.

For the last three years it has been the good fortune of some of my registrars to be seconded to Ibadan, where they saw midwifery of a type which has almost disappeared in the United Kingdom. When on their return they described rather gruesome cases to me, they were astonished that I was not horrified. My lack of astonishment was due to the fact that they were describing a type of case with which I was only too familiar as a tutor and junior consultant thirty years ago. We have improved in the United Kingdom, but have still a long way to go.

The improvement has been the result of the good teaching of our predecessors in the obstetric chairs and also the education of the general public. Thirty years in the life of a nation is as a drop in a bucket of water, and a difficult task is more worthwhile than being able to sit back and enjoy the benefits acquired by one's predecessors. I can foresee the time when many of the things accomplished in this vast country

will be an example to the older obstetric units of the world.

Of recent years in the United Kingdom great political capital has been made out of the improved maternal and infant mortality. If credit for this improvement is to be given, it should be to those whose work brought about improved control of sepsis, to those who introduced the sulphonamides and antibiotics, and in no lesser degree to midwives, family doctors, obstetric specialists and teachers who, each in his sphere, has contributed to the welcome and steady improvement which has occurred in the last twenty years.

As St. John Irvine recently said:

"A finer race will be raised by those who desire it, but it will not be created by those who have subjected themselves to slavers, whether the slavers be private persons or Government departments. The beginning of all improvement is made by individuals."