Medicine in the 'Seventies

Changes in obstetrics

AN INTERVIEW WITH PROFESSOR RICHARD BEARD

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Maternity services have come under attack twice recently: in the DHSS review of priorities¹ and in the "Think Tank's" review of population trends.² Does a fall in the birth rate necessarily warrant a cut in NHS expenditure on obstetrics? That was the first question put to Professor Richard Beard in an interview with a member of the *BMJ* staff.

Professor Beard accepted that the initial implication of a fall in births was that obstetric units throughout the country would

be doing less work. Undoubtedly there was a need to cut back on the numbers of both beds and staff in obstetrics. But the danger was that money would be taken away unthinkingly to the detriment of the whole service. He believed very strongly that first of all we should be asking where obstetrics was going and what type of service should be provided for the future. Only after a definite policy for the future had been established would it be possible to start to take money away, reduce the number of beds that were available, and to alter the service.

Professor Richard Beard, Professor of Obstetrics and Gynaecology, St Mary's Hospital, London W2.

"The big danger that worries obstetricians is that all the things that we have achieved—a low perinatal mortality and safety for the mother in pregnancy—will be endangered by an unthinking attitude towards savings. The important thing is to define who is at risk," he commented. "The problem of maternal mortality has largely been overcome—pregnancy and labour are no longer a risk to the mother. It is the problem of the fetus that concerns us at the moment, because the quality of the fetus is our investment for the future in the family and for the country. Our major objective must be the delivery of a baby in perfect condition. There is even more sense to that argument than first meets the eye, because if we can achieve that objective we would reduce the needs for paediatricians and special care baby units."

Hospital delivery

There was no doubt from the published statistics that labour is the time of greatest risk to the baby, and it seemed to him an unavoidable conclusion that labour should be conducted in hospital. "Surveillance of the mother and the fetus should be of the highest possible quality," said Professor Beard, "and I think it is now clearly established that with good monitoring

facilities there should be no fetal deaths during labour. If an intrapartum death does occur then usually it is avoidable. The home is no place to deal with the emergency that fetal distress presents." He had no doubt that the main indication for taking women into obstetric units rather than allowing them to have their babies at home (or perhaps in cottage hospitals) was the elimination of the small but definite risk of intrapartum stillbirth.

"Monitoring is now with us as an established procedure," said Professor Beard. "The way in which it is practised, of course, varies considerably. A recent survey by the Royal College of Obstetricians and Gynaecologists found that more than 80% of units questioned had a fetal monitor. The question that wasn't asked in the survey was how many of them were using it as a regular part of their service."

Some obstetricians took the view that it was only really worthwhile to monitor high risk women. Professor Beard disagreed with that approach. "You cannot actually exclude the possibility of intrapartum death in that way," he said. "In terms of actual numbers of stillbirths there are as many among the low risk as the high risk group of women." Another criticism sometimes made of modern obstetrics was that it was becoming organised on an "office hours" basis. Was this a trend that Professor Beard would encourage? His answer was an emphatic no. "We have to continue to run a 24-hour service," he continued. "We simply cannot arrange for labour on demand to suit the specialist services. The anxiety is whether it will continue to be possible to run an efficient 24-hour service with diminishing numbers of all grades of staff. But if we are to ensure that women get the maximum benefit and pleasure out of being pregnant and having their babies—and I think that's a worthwhile objective for future generations—then we must run a 24-hour service."

Preventing handicap

Was there evidence that preventing intrapartum death also prevented substantial degrees of intrapartum hypoxia, which might lead to some degree of handicap in the baby? Would monitoring-for-all reduce the incidence of birth handicaps?

"If we look among a group of babies suffering from defects such as spasticity and epilepsy," Professor Beard said, "we find that a high proportion have a history of some form of obstetric abnormality. Either the mother had toxemia during pregnancy or the labour was complicated in some way or another. That seems to me a fairly watertight argument for linking handicap with obstetric abnormality. If we can reliably detect asphyxia of a baby during labour and take appropriate measures to deliver it before it becomes damaged, then there can be no argument that that is worthwhile. It may be more difficult to measure in terms of an individual what the effects of such intervention is going to be, but medically it is thoroughly justifiable."

What did he reply to the woman who had been entirely healthy throughout her pregnancy who asks "I understand that there is a small increased risk if I have my baby at home but I would

nevertheless prefer to take that risk." Professor Beard thought that the reply had to depend on the area she lived in. If there was a domiciliary service available with a flying squad all the obstetrician could say was that he would not advise her to stay at home because it was impossible to forecast what complications might arise during labour; but, as statistics were on her side if she was going to take that risk, accepting the responsibility, that would be her decision. Even so, she should be reminded that she now had the additional responsibility of another life—her baby's—and that facilities for dealing with emergencies could never be as good at home as in hospital.

Interventionist obstetrics

What about the considerable swell of opposition to interventionist obstetrics? Was the modern maternity unit too mechanised and too impersonal? "Personally I believe that the policy of wholesale induction of labour for postmaturity has led to an unnecessary degree of intervention," said Professor Beard. "However, there is never any need for hospital obstetrics to be impersonal. The spirit of an obstetric unit is a reflection of the attitudes of its staff."

General practitioner obstetrics

What role did he see for the general practitioner in obstetrics in the coming decade? Was the GP obstetric service going to continue to be valuable or would rationalisation of the maternity services to take account of the drop in the birth rate mean that the GP and indeed the midwife were going to be phased out?

"Both these individuals play an important part in the delivery of health care during pregnancy, and it would be absolutely wrong to propose that they should stop doing so," replied Professor Beard. "Obstetricians should be there for specialist advice but the GP obstetricians and the midwife should be involved as much as possible to provide them with a worthwhile job. There are difficulties for the GP who really wants to be concerned in the total obstetric care of the woman. Supervision of labour and being present at the delivery cut across his routine. However keen he may be to come in to deliver his patients, the GP is liable to be out on some domiciliary call; or he may have a weekend off and be difficult to contact. In this rather sensitive area of delivery the GP does not have a place unless he is prepared to commit himself totally to being available at any time of the day. But I think he does have an important place in antenatal care, and I think with shared care systems and the possibility of developing community antenatal clinics he still has an important role. We should see the hospital midwife as being a specialist. While all midwives should have experience of hospital practice, we should be recreating the community midwife—the individual who knows the patient from the fact that she has had one or two babies before, who takes part in her antenatal care, is ready to receive her when she is discharged early from hospital, and to advise on breast feeding and the general care of the baby."

Abortion

Any discussion of obstetric services should, surely, include mention of the provision of abortion services within the NHS. In part, at least, was it not likely that some of the decline in the birthrate was attributable to an increased number of terminations of pregnancy? Yet this did not seem to be taken into full account by statisticians and economists. Professor Beard agreed. Once termination had become freely available it had had a number of interesting effects on obstetric patterns. For example, one change has been in the pattern of perinatal mortality as shown in a recent *BMJ* article from Sheffield,³ which found that the

improvement was largely attributable to a decline in the numbers of very low birthweight babies.

"These births are always difficult ones to deal with obstetrically," he continued. "They tend to occur more frequently in the lower socioeconomic groupings, and they are difficult to treat. The woman who comes in at 26 weeks with ruptured membranes presents a very real problem to the obstetrician—and, of course, in such cases the perinatal mortality is very high. To me it seems that if fewer such cases are occurring the likely explanation is that legal abortion is having an effect. Abortion is reducing the number of very young girls continuing with unwanted pregnancies in addition to the grand multip who thought her childbearing days were over. I see legal abortion as making a positive contribution to improving perinatal mortality and believe that the service should be costed as part of the maternity services. If we really are doing good, as I think we are, with legal abortion then we should have some support to provide a good service within the NHS."

Geographical variation

One of the striking features of perinatal mortality in Britain was the remarkably wide fluctuations from place to place within this relatively small country. At one hospital unit the mortality might be in the region of 10 and yet only a few miles away there might be an NHS area where the mortality was approaching 30. Could not more be done to identify these high risk areas and perhaps to concentrate services there?

"One of the reasons the figures at a hospital like St Mary's are good," said Professor Beard, "is that our hospital is fortunate in being adequately staffed, so that the staff can concentrate on the areas of high risk and provide an intensive care service during labour that some hospitals in areas outside London with serious staff shortages would find difficult to do."

Nationally, what was needed, Professor Beard argued, was an epidemiological approach. "I have said before that Britain, having a nationally organised system for delivering health care, is ideal for such an approach. Ongoing epidemiological surveys are a means of determining what the problems are and where they exist. With this information at hand it would not then be so difficult to apply the appropriate remedies. What is needed is a nationally sponsored unit of perinatal epidemiology—in effect a confidential inquiry into areas where there is a high perinatal death rate." This would not only determine the areas most in need of an improvement in obstetric services but also lead to a more rational approach to the purchase of expensive equipment. "What I am really saying is that an epidemiological approach would enable the nation to make the best use of limited resources. What happens at the moment is that if an obstetrician sees that there is a new development, such as sonar, he may put in an application to his area health authority for an expensive scanner for his department. Now neither the area committee nor the consultant are likely to be aware of how cost-effective sonar scanning is, or whether they can generate the expertise to get good results. Our present system is wasteful and what we really need is some central control (not total control) but some control of new developments—a sort of epidemiological *Which?*—that tells us the advances that are most worth having. The potential savings are considerable."

Consumer attitudes

Any discussion of advances had to take account of the attitudes of women themselves. Professor Beard believed that the education of pregnant women was of fundamental importance. "Antenatal care should now involve a fair amount of education," he said. "Modern women are intelligent and want to take an active part in their pregnancy and their labour. It is unwise to introduce a woman into a labour ward and attach her to a

machine without telling her what it is all about and it is an essential part of antenatal education that we should describe monitoring. She feels that this is a way in which she personally can observe the state of her body. The conflict over home versus hospital delivery has arisen partly because of the busy hospitals that cannot avoid a tendency towards being impersonal. What we should be working towards is making hospitals more amenable and caring places where women feel that they are individuals. It is a matter of attitudes. Even if the obstetrician is short of time, if he can let his patients make their own decisions and understand that he is there in an advisory rather than an authoritarian role a completely different atmosphere is created.

"Personally, I find it difficult to understand why so much heat has been generated against the Leboyer technique. The fact that most women are attracted to the idea of creating a suitable environment for the baby when it is born is evidence that they do not find the present system as good as that advocated by Leboyer. There are few women who want the procedure carried out to the last detail—most are prepared to forego the bathing—what they are attracted to is the immediate close contact with

the baby, and in practice that is easy to do. To deliver the baby straight into the mother's arms is not a major problem—even without Leboyer.

"In essence I believe that what is necessary nowadays is to accept that most women want to take a more active part in their pregnancies than they did in the past. The form that this takes will vary, but what is necessary is to promote in them a feeling that they can express their anxieties and desires freely in the knowledge that they will receive a sympathetic hearing. It sounds a simple philosophy but it is one that takes time to imbue into all those involved in obstetric care."

References

- ¹ DHSS, *Priorities for Health and Personal Social Services in England. A Consultative Document*. London, HMSO, 1976.
- ² Central Policy Review Staff, *Population and the Social Services*. London, HMSO, 1977.
- ³ Gordon, R R, *British Medical Journal*, 1977, **1**, 1313.

Are vegetarians exempt from gout?

No. Purine metabolism in man leads to urate, which is derived from both exogenous and endogenous sources; in starvation, for example, the serum urate concentration may rise to high levels.¹ A purine-free diet does not appreciably reduce hyperuricaemia in patients with gout; it merely lowers the serum urate concentration by 1-2 mg/100 ml (0.06-0.1 mmol/l).² It was often noted in the second world war, however, particularly in Western Europe, that as the protein intake dropped so did the attacks of gout. There is also a correlation between obesity, attacks of gout, and serum urate concentrations.³ The Japanese are increasingly prone to gout as their diet becomes more Westernised. Constitutional factors are probably more important. The Maoris of New Zealand, for example, have a 10% incidence of clinical gout and a mean serum urate concentration of 7.3 mg/100 ml (0.4 mmol/l); they are meat eaters. Vegetarians, if they have a low purine diet, may be less prone to attacks of gout but this is not so important as the constitutional and familial factors responsible for hyperuricaemia.

- ¹ Drenick, E J, et al, *Journal of the American Medical Association*, 1964, **187**, 100.
- ² Gutman, A B, and Yu, T F, *Advances in Internal Medicine*, 1952, **5**, 27.
- ³ Emmerson, B T, *Arthritis and Rheumatism*, 1968, **11**, 623.

Is there any medical or surgical treatment for axillary hyperhidrosis that has failed to respond to the usual cosmetic antiperspirants?

Despite the many extravagant advertising claims, commercially available topical applications do not eliminate axillary sweating in the hyperhidrotic individual. Some preparations, in particular the pressurised aerosols, are not only overpriced and wasteful in use but not infrequently cause irritant skin reactions. Axillary eccrine hyperhidrosis is familial, triggered predominantly by emotional stress, absent in childhood, rare in the aged, and notoriously difficult to control medically. Most of the partially effective topical applications contain aluminium chloride in varying concentrations and formulations. Shelley and Hurley¹ have advocated a highly effective topical application—aluminium chloride hexahydrate 25% in absolute ethyl alcohol. It is prepared by dissolving the salt crystals in the alcohol, which at room temperature takes about three weeks to obtain complete alcohololysis. Clearly a co-operative pharmacist is needed. The solution is best applied in a roll-on glass applicator to the dry apex of the axilla—that is, when the patient is completely relaxed before going to bed. The application is irritant and should not be applied within 48 hours of shaving the axilla. Its penetration and efficacy is enhanced by occluding the treated area with a thin film of polyethylene sheeting clinging to the treated area (vinylchloride-vinylidene chloride copolymer sheeting of 48 gauge thickness). The occlusive membrane should be kept in position for six to eight hours overnight. Anhidrosis is usually obtained for about a week. Retreat-

ment once a week is usually sufficient for sustained dryness of the axilla. This method appears to be safe and non-allergenic but may temporarily irritate sensitive skin. Some patients find it difficult to retain the polyethylene sheeting. This treatment may be used without polyethylene occlusion but is then slightly less effective.

- ¹ Shelley, W B, and Hurley, H J, jun, *Acta Dermatovenereologica*, 1975, **55**, 241.

The normal blood concentration of cholesterol is estimated to be 3.8-6.4 mmol/l (150-250 mg/100 ml). At what level should it be lowered by treatment?

The recent report on prevention of coronary heart disease¹ emphasises that it is not possible to give a fixed point of plasma cholesterol above which prophylactic measures should be taken. Epidemiological evidence, however, can provide some guidelines, since attack rates for coronary heart disease in men aged 30-59 rise sharply with plasma cholesterol concentrations above 6.5 mmol/l (250 mg/100 ml). Efforts should therefore be made to lower the level in middle-aged men whose fasting plasma cholesterol exceeds 7.1 mmol/l (275 mg/100 ml). Values between 6.5 mmol/l and 7.1 mmol/l (250-275 mg/100 ml) should also be treated if additional risk factors, such as hypertension, cigarette smoking, diabetes, or physical inactivity are present.

- ¹ Report of Joint Working Party of Royal College of Physicians of London and British Cardiac Society, *Journal of the Royal College of Physicians of London*, 1976, **10**, 213.

Is it true that effort which in normal weather conditions would not be harmful to the person concerned may, when conditions are exceptionally cold, precipitate an attack of angina or even cardiac infarction?

It has long been a clinical observation that sudden cold may precipitate anginal attacks. Thus, opening the front door on first going out in the morning or even just opening the fridge door can precipitate pain in anginal subjects. In the United States it is well known that cardiac infarction is commoner after the first snows of the winter and that the victims of infarction have often been shovelling snow when the infarct symptoms developed. The explanation for the influence of cold on ischaemic cardiac pain is controversial. Pain on sudden exposure to cold is not explained by increased exertion. It may be accounted for by a sudden rise in blood pressure associated with skin vasoconstriction or it may be that skin and coronary artery constriction occur together without any necessary rise in blood pressure to increase left ventricular work. Precipitation of infarction by shovelling snow is undoubtedly related to sudden hard isometric effort in an untrained person that leads to a great increase in left ventricular oxygen demand that may not be met.