setting the risks against the benefits. They add that the balance of cost (including risks) and benefits should also be considered for alternative means of achieving the same benefits so that the optimum choice of means can be made. The benefits of nuclear power include the saving of life, limb, and health endangered by other means of getting energy, such as mining coal, drilling for oil, harnessing wave power at sea, maintaining wind mills, and so on—and vice versa, of course. Historically it is a new departure to attempt a disinterested assessment in advance of the cost and benefit of a large scale technology with a view to making a deliberate choice of what is best. It may be disturbing to feel that these large decisions on incomprehensible matters are being taken on one's behalf by faceless bureaucrats or "experts," especially if deaths and disablement form part of the equations. It may be disturbing to realise that those who reap the benefits are usually not those who are exposed to the risks, though this has obviously been true of coalmining from its beginning as an industry. Anxieties about nuclear power are only too natural.

Major issues

It seems likely that misunderstandings about the toxicity of plutonium will be of only minor significance for the Windscale Inquiry. The major issues in relation to risk are the engineering of means of containing plutonium and radioactive waste and the possibility of blackmail by terrorists. In neither case are the risks of indefinite magnitude, as they might be with the escape of a self-replicating virus or bacterial pathogen; the risks are calculable,[12] since they depend quantitatively on how much plutonium is liberated where and in what form. It ought to be reassuring to know that even approximate calculations can be made, so that the bad and the worse, and even the worst, can be planned for. But, because this kind of technical power is historically so new, it may also appear arrogant, over-weening, or repulsive. The report of the Windscale Inquiry may become a landmark in our social evolution.

References

1 Medical Research Council, *Toxicity of Plutonium*. London, HMSO, 1975.
2 Lovins, A B, Testimony on behalf of Friends of the Earth to the Ranger Uranium Enquiry, Sydney, Australia, 1975.
3 Lovins, A B, and Price, J H, *Non-nuclear future*. Cambridge, Mass, Friends of the Earth-Ballenger Co, 1975.
4 Gofman, J W, *Journal of the American Medical Association*, 1976, **236,** 284.
5 Gofman, J W, *Congressional Record of USA, Senate*, 31 July 1975, S14610-S14616.
6 Auerbach, D, *et al*, *New England Journal of Medicine*, 1961, **265,** 253.
7 Ide, G, Suntzeff, V, and Cowdry, E V, *Cancer*, 1959, **12,** 473.
8 Sevč, J, Kunz, E, and Plaček, V, *Health Physics*, 1976, **30,** 433.
9 Greenberg, R, *The Times*, 5 May 1977.
10 Mole, R H, *New Scientist*, 1975, **66,** 501.
11 International Commission on Radiological Protection, *Radiation Protection*, ICRP publication No 26. Oxford, Pergamon Press, 1977.
12 Cohen, B L, *Health Physics*, 1977, **32,** 359.

(*Accepted 20 July 1977*)

For Debate . . .

Mothers' experiences of induction

ANN CARTWRIGHT

British Medical Journal, 1977, **2,** 745-749

Summary

Mothers of a random sample of 2182 legitimate live births were interviewed about their experiences of pregnancy, labour, and delivery. Of these, 24% reported that their labours were induced, and data about this from a subsample of mothers tallied with information obtained through the doctors in charge in 88% of cases. All but 3% of the mothers who were induced perceived some medical reason for the induction. The proportion of inductions in the 24 study areas ranged from 6% to 39%. A relatively small proportion of labours in "teaching" hospitals, small hospitals with less than 100 beds, and GP maternity hospitals were induced, but a comparatively high proportion of private patients had an induction. There was no clear association between induction and the mother's age or parity. Despite being given more pain relief, those who were induced reported similar intensities of pain during the first and second stages of labour to those whose labour started spontaneously; they also reported that they had "bad pains" for a similar period. The period they had contractions was shorter for the induced than for those starting spontaneously, and the intensity of pain at delivery was rated somewhat less by those who were induced.

There was no difference between induced babies and others in the proportion who were held by their mothers immediately after their birth. Two-fifths of the mothers who were induced would have liked more information about induction; and a similar proportion said they had not discussed induction with a doctor, midwife, or nurse during their pregnancy. Only 17% of the mothers who had an induction said they would prefer to be induced if they had another baby. This contrasts with 63% of those who had epidural analgesia who would opt for the same procedure next time, while 83% of those who had had a baby in hospital, and 91% of those having had a home birth, would want their next baby in the same type of place.

Institute for Social Studies in Medical Care, London E2 9PF
ANN CARTWRIGHT, BSC, PHD, director

Introduction

In recent years obstetric care has been increasingly interventionist, and in particular the proportion of deliveries in NHS hospitals that were induced rose from 15% in 1965 to 41% in

1974.[1] Some obstetricians believe that this has reduced perinatal mortality and led to shorter labours and to babies generally being in a healthier state.[2] A leader in the *BMJ*[3] in 1976 affirmed "Obstetrics is one of the few areas of medicine in which in the last decade technological innovation has not only been rapid but has proved to be effective." But the evidence is by no means clear-cut. At least part of the recent reduction in perinatal mortality can be explained by a fall in the proportions of high-risk elderly women and in those of high parity and low social class.[4] Analyses of data from Cardiff,[5 6] Oxford,[4 7] Glasgow,[8 9] and Dublin[10] come to rather different conclusions about the advantages of an increased induction rate. And at least one prominent authority on obstetrics has expressed doubts about a previous high rate of induction.[11]

Other criticisms of the high induction rate have come from social scientists and paediatricians. Richards[12] argues that it "reflects a tradition in obstetrics that favours interventionist procedures which involve close control over patients and appear to be 'scientific.'" He points to the lack of appropriate quality control and scientific assessment in obstetrics, and suggests that professional dominance has allowed this practice to persist. Dunn,[13] commenting on the frequency of interventions, feels that they have almost become part of the ritual of modern delivery and wonders whether some obstetricians have become intoxicated by their new technology.

Another aspect of induction that has been emphasised by the lay press and by patients' representatives is convenience. A review in the *Sunday Times*[14] stated: ". . . technology is now being used in some hospitals to induce births routinely, not primarily for the baby's safety or the safety of the mother, but in order to create a production line system where women have their babies by clockwork during daylight hours." Certainly some obstetricians regarded a high induction rate as a reasonable policy when staff were few, and in some hospitals two-thirds of births were induced.[15]

There are discussions, but no consistent findings, about the relations between induction and caesarean section rates, the use of forceps, Apgar scores of neonates, neonatal jaundice, and the quality of subsequent relations between mother and baby.[4 5 8 16] I do not propose to assess this evidence but to point out that the experiences and feelings of childbearing women are important in assessing obstetric procedures. There has been one prospective study of 200 patients at a single hospital,[17] but there has been no systematic assessment of women's views on a wide and representative scale. The National Childbirth Trust study[18] could not and did not claim to be based on a representative sample. This study tries to fill this gap. In addition, the only information on a national scale about the frequency of induction comes from the Hospital Inpatient Enquiry. It gives the proportion induced but no data about who is induced, or when, why, and how these inductions are performed. Some data about this are available from individual hospitals or areas but statistics seem to be collected only in the better centres.[19]

Methods

We studied 24 areas of England and Wales. The areas were chosen with a probability proportional to the number of births. They were listed in order of region and county and then taken at equal intervals with a randomly selected starting point. In each area 100 legitimate live births were selected at random by the Office of Population Censuses and Surveys: 50 from births registered in July 1975 and 50 in August 1975. The mothers were approached when the babies were 3 or 4 months old. Altogether 2182 (91%) were successfully interviewed, 4% refused, 4% had moved and could not be contacted or traced, and 1% were not seen for other reasons.

An attempt was made to compare some of the medical information obtained from mothers with data available from medical records. A random 10% were asked if they were willing for us to get in touch with their doctor or the hospital to get some medical information about their pregnancy and confinement. No medical information was sought for the 7% who did not agree. In addition, no attempt was made to collect medical data about the 4% who had had a home birth. Medical information was sought for 191 patients and was obtained for 131 (69%).

DEFINITION OF INDUCTION

Whether a labour is induced is not always easy to define or to determine. The main problem is that either the membranes may be artificially ruptured or drugs (oxytocin and prostaglandins) may be given after labour has started spontaneously to facilitate or accelerate labour. If this happened, it has been regarded as an "acceleration" rather than an "induction." The problem then is to ascertain whether or not labour started spontaneously. Spontaneous labour was defined as either contractions starting or membranes rupturing spontaneously before the women were given a drip or injection to start labour or before membranes were ruptured artificially.

COMPARISON WITH MEDICAL RECORDS

Information obtained from mothers was compared with that obtained from doctors for 131 births (table I). The information tallied in 114 instances, 88%. The proportion of induced births in the subsample was 30% according to the mothers and 33% according to the doctors.

TABLE I—*Information about induction from mothers and doctors*

Reported by doctor	Reported by mother			Total
	Planned caesarean section	Induction	Spontaneous labour	
Planned caesarean section	4			4
Induction		32	9	41
Spontaneous labour		7	78	85
Inadequate information			1	1
Total	4	39	88	131

Confusion between induction and acceleration seemed to account for about half the discrepancies, and experiences that were difficult to categorise for about a quarter. Because of the confusion between induction and acceleration, it might sometimes seem more appropriate to identify births in which there was some active management by drugs or artificial rupture of the membranes at any stage. But comparisons showed more discrepancies over this, so these results relate simply to induced and non-induced births.

Results

WHO IS INDUCED?

Area and hospital variations

From 6% to 39% of the births in the 24 study areas were induced. This wide range was only marginally affected by the different proportion of home births; variations in hospital size accounted for a larger part of the difference. Of women giving birth in small hospitals with less than 100 beds, 14% were induced compared with 27% in larger hospitals. (Attention has been drawn only to differences that statistical tests suggest are unlikely to occur by chance more than five times in 100. Data about the number of beds and type of hospital were taken from *The Hospitals and Health Services Year Book 1975.*) If births in the small hospitals are excluded the proportion of hospital births that were induced varied from 12% to 40% in the study areas.

From the data for individual hospitals there were 37 hospitals at which 20 or more of the study births occurred. Within these, the proportion of inductions varied from 0% to 57%, or from 4% to 57% if general practitioner hospitals or maternity homes are excluded.

When the type of hospital is considered, 21% were induced at "teaching" hospitals compared with 27% at "non-teaching" acute and maternity NHS hospitals. Five per cent of the births took place in general practitioner hospitals or maternity homes, and only 5% of these were induced (all but one by artificial rupture of the membranes only). The few women (less than 2%) who had their babies privately rather than under the NHS were relatively likely to have an induction: 44% of them did so against 24% of the others.

Age, parity, and social class

The data in relation to age and parity are shown in table II. (Parity was taken as the number of previous pregnancies ending in a live birth or a stillbirth.) The lack of variation is striking.

The proportion who were induced was 21% for the middle class (wives of non-manual workers) and did not vary between the three subgroups. Rather more of the working class (married to manual workers) were induced, 26%, but within the working class there was a significant variation with fewest of those married to unskilled workers being induced.

A possible explanation for the low induction rate among social class V mothers might have been the relatively low average birth weights of their babies. The proportion induced rose from 18% of babies weighing less than 2497 g to 36% of those weighing 4086 g or more (multiple births were excluded from this comparison). But this trend is due to differences at the two extremes. There was no trend in the proportion induced within the range 2497 g to 4086 g. Although weight is related to social class, this does not account for the social class variations in induction. There were no social class differences in the type of hospital where the baby was born, nor were there any appreciable social class variations in estimated age of gestation. Another hypothesis for the social class variations related to women's certainty about the date of their last monthly period. Altogether 11% of the middle-class mothers, 16% of women married to skilled or semi-skilled manual workers, and 22% of those married to unskilled workers could not give a date or month. Certainty about this, however, was not related to induction.

TABLE III—*Inductions by social class**

	I (n = 193)	II (n = 367)	III NM (n = 239)	III M (n = 853)	IV (n = 309)	V (n = 115)
Percentage having planned caesarean section	4	2	1	2	3	1
Percentage induced	20	21	21	26	31	12

*According to Registrar General's classification of occupations.

TABLE IV—*Induction and gestational age. Results are percentages of mothers*

Gestational age (weeks)	Planned caesarean section (n = 48)	Induced (n = 508)	Started spontaneously (n = 1557)	All live births (n = 2125)	Proportion induced* (numbers on which percentages based)
<36	2	1	2	2	13 (45)
36 and 37	15	3	7	6	11 (128)
38–41	77	66	80	76	21 (1615)
⩾42	6	30	11	16	51 (325)

*3% of the mothers did not make an estimate of gestational age.

MOTHERS' PERCEPTIONS OF REASONS FOR INDUCTION

Women whose labours were induced were asked why they thought it had been done. All except 3% gave some medical reason, the most common ones being that they were overdue (55%), that "they" were worried about the baby (28%), or that the mother had high blood pressure or toxaemia (27%). Many mothers gave more than one reason.

Of those who were induced, 16% said that this was partly because they had wanted it, but only seven, 1%, gave this as the only reason—"He knew I was fed up and I'd been in a lot of pain. I think he was just feeling kind. I must have been nearly ready or he would not have done it."

Eleven per cent thought it was done so that the baby would be born at a convenient time, and a further 4% were uncertain whether that was the reason. Nearly half these women, 5% of those having inductions, thought that it was for the convenience of both the mother and the hospital, 4% that it was for the convenience of the hospital only, and 2% that it was for the convenience of the mother.

Those who said they were induced because they were overdue were asked how overdue they were reckoned to be at the time. Out of 283 women 6% claimed to have been one to three days overdue, 6% four to six days, 21% seven to nine days, 22% 10 to 12 days, 32% 13 to 15 days, 6% 16 to 20 days, and 7% three weeks or more.

Three-quarters of those who were induced for this reason were estimated to be seven to 15 days overdue at the time. When those who said being overdue was the only reason for their induction are considered, 23% were induced within 10 days of their estimated date of delivery, 29% on the 10th, 11th, or 12th days, 38% on the 13th to 15th days, and 10% on the 16th day or later.

Mothers were also asked how many weeks pregnant they were when the baby was born. In the subsample the correlation between the mothers' estimates of this and the doctors' estimates of gestational age was +0·76. Analyses suggest that nearly a third of the induced births occurred in the 42nd week or later and two-thirds in the 38th to 41st weeks (table IV). The last column shows that the proportion of births that were induced was around one in eight of the births occurring in or before the 37th week, one in five of those in the 38th, 39th, 40th, and 41st weeks, and then rose to almost half of those in the 42nd week or later.

When gestation was held constant there was no difference between the average birth weights of babies from induced or spontaneous labours. (Overall birth weights were higher when labour was induced than when it started spontaneously.)

The mothers' perceptions about the reason for induction were related to gestational age, the proportion being induced because of high blood pressure declining from over half 55%, of those induced before the 40th week, to 11% of those induced in the 42nd week or later, while the proportion induced because they were thought to be overdue rose from 6% to 95%.

INDUCED AND NON-INDUCED LABOUR

Women who were induced were more likely to have received some pain relief during labour than those whose labours started spontaneously, 89% compared with 79%. Among those who received none, a quarter said they would have liked to have been given something, and this did not differ between the induced and the others. Nine per cent of those who were induced and 4% of the others said they were given an epidural, and 72% of the induced and 62% of the others said they were given some other type of injection to relieve pain. Of those given pethidine 38% were induced and 29% were not, but many mothers did not know what drug they had received. Half of each group said they had something to inhale, and there was no difference between those who were induced and those who started labour spontaneously in their views on the adequacy or timing of their pain relief.

Comparisons of length of labour are difficult because the starting of induced labour is likely to be more clearly defined. But taking the length of time women said they had contractions, induced labours were shorter than ones that started spontaneously: 15% of the former and 37% of the latter lasted 12 hours or more. There was no difference in their estimates of the length of the second stage, nor in the length of time the mothers said they had "bad pains." Estimates of the intensity of pain at different stages showed no differences between the two groups, except that those whose labours started spontaneously rated their pain as rather greater during the delivery

TABLE II—*Inductions by age and parity**

	Mother's age					Mother's parity					All mothers (n = 2169)
	<20 (n = 144)	20– (n = 690)	25– (n = 897)	30– (n = 330)	⩾35 (n = 104)	0 (n = 816)	1 (n = 853)	2 (n = 325)	3 (n = 126)	⩾4 (n = 47)	
Percentage having planned caesarean section	1	2	·2	3	5	2	2	3		2	2
Percentage induced	24	28	21	28	17	26	24	20	24	23	24

*Small numbers for which inadequate information was obtained have been omitted from this and later tables.

than women whose labours were induced. There was no difference between the two in the intensity of the worst pain that was reported —despite the high proportion among the induced who received some form of pain relief.

There was no difference between the two groups in the proportions reporting worries or anxieties during labour—30% of all women said they had felt some anxieties. More of those who were induced said the baby's heart had been checked while they were in labour, 92% compared with 80% of those starting spontaneously, and more of the induced said it had been checked by a machine, 32% against 17%, whereas similar proportions in each group said it had been checked by a stethoscope (9%) or by "trumpet" (57%). (Some said it was checked in more than one way.)

In an attempt to get an overall assessment of how women felt about their labour, they were asked: "Looking back now, do you consider your labour was a pleasurable experience, rather unpleasant but endurable, or a nightmare?" A third of them described it as a pleasurable experience, and a tenth as a nightmare. These proportions did not differ significantly in the two groups.

DELIVERY

The proportion delivered by caesarean section was 3% of those whose labour started spontaneously and 4% of those who were induced —a difference which could well occur by chance. Three per cent of both groups had breech deliveries, but the proportion of deliveries that were assisted was higher among the induced, 21%, than the spontaneous labours, 13%. The differences persisted when those who had epidural analgesia were excluded: the proportions then being 18% of the induced and 12% of those starting labour spontaneously. Of course, factors related to the reason for induction, rather than the induction itself, may be associated with the need for assistance at delivery.

Induced births were more likely to be delivered by a doctor: 27% compared with 17%, but this seemed to be mainly because of the high proportion of assisted births among the induced. If the comparison is confined to births at which no instruments were used the proportion said to be delivered by a doctor was 10% of the induced and 7% of the others—a difference that might occur by chance.

There was no significant difference in the proportion of the two groups who had to be stitched (71% of all mothers having a vaginal delivery), although the proportion who had episiotomies was higher among the induced, 54%, than the non-induced, 48%. The pain score associated with the insertion of the stitches was similar for the two groups, but more of the women who had been induced said the stitches caused them a lot of pain and discomfort afterwards: 40% against 34% of those starting labour spontaneously. This seemed to be because more of those who were induced had assisted deliveries; if this is held constant there is no significant difference between the two groups.

A third of the mothers said they held their baby straight away—before the afterbirth was delivered. This proportion was similar for both groups.

MOTHERS' VIEWS, INFORMATION, AND CHOICES ABOUT INDUCTION

Mothers were asked if they would have liked more information about various aspects of labour, delivery, and after care—or if they would have liked information about them sooner. Two-fifths of those who were induced said they would have liked more information about induction, and this was higher than the proportion wanting more information about any other aspect of care. Altogether four-fifths of the mothers wanted more information about some aspect of their care.

All the mothers were asked whether, at any stage of their pregnancy, they had had any discussion with a doctor, nurse, or midwife about induction. Of those who were induced, 57% said there had been some discussion; of those whose labour started spontaneously, only a third reported this. A third of the mothers who were induced but said they had not had any discussion about induction with a doctor, midwife, or nurse during their pregnancy said they would have liked to talk to someone about it. The other two-thirds did not apparently feel a need for discussion.

Mothers were asked several questions about their preferences if they were going to have another baby and there were no medical complications. The one relating to induction was: "If the doctor said that shortly before the baby was due, if you liked you could come into hospital on a particular day and he would put you on a drip that would start your labour and mean that the baby would arrive more quickly, would you like him to do this or not?" Eight per cent said they would prefer an induction. This proportion was 17% of those who had had an induction for the survey baby, compared with 5% of those who went into labour spontaneously.

While this suggests that experience of induction increases the proportion who would prefer one, it should be emphasised that 78% of those who had had an induction would prefer not to have another. This is in striking contrast to their views on having the next baby at home or in hospital. Over 80% would prefer to have another baby in the same type of place—home or hospital—as they had the last one. This proportion was greater among those who had had their baby at home than among those having it in hospital (table V). There was less enthusiasm for epidural analgesia than for home or hospital births, but nearly two-thirds of those who had had epidural analgesia would prefer to do so again compared with less than a fifth of those who had had an induced birth. The main reason for not wanting an induction is summed up by one mother: "I'd like the baby to come naturally. I wouldn't like it to be rushed if it doesn't need to be."

Those who had had an induction were asked if they felt they could have refused to have an induction if they had not wanted one, and then if they would say they had a choice about being induced or not. Rather more, 54%, felt they could have refused one than said they had a choice about it, 34%. The proportion who felt they had a choice was higher, 57%, among those who said they were induced because they were overdue than among those who were induced because of high blood pressure or toxaemia, 31%, or because of anxieties about the baby, 29%. This proportion was 42% among those who said they were induced so that the baby could be born at a convenient time.

Discussion

Institutional attributes—the size and type of hospital, being a private or NHS patient, and area—were all related to induction, but there was no clear or consistent variation in the proportion induced with the age of the mother. This lack of variation with maternal age is surprising. Other data[1] show an increasing proportion of inductions with age, from 21% of the under-20s to 28% among those aged 35 or more in 1965-8, and from 27% to 37% in 1969-72. And earlier, before oxytocin and prostaglandins were used for induction, the induction rate reported by Baird[20] was much higher for women aged 35 or more. McNay *et al*[9] report an increasing induction rate with age from 16·6% for those under 20 to 21·4% for those aged 35 or more in 1966-70, but in 1971-4, with a much higher induction rate, the variation with maternal age was no longer clear-cut. The greater precision with which fetal distress can be detected and a different use of caesarean section may contribute to changing patterns in the use of induction.

Fedrick and Yudkin[1] also reported that inductions were more often prescribed for either primiparae or grand multiparae

TABLE V—*Percentage preferring various types of care if they had another baby*

	Method used for survey birth					
	Induction		Epidural		Place of birth	
	Induced (n = 523)	Not induced (n = 1593)	Had epidural (n = 110)	Did not have epidural (n = 2053)	Home birth (n = 97)	Hospital birth (n = 2083)
Prefer same as last time	17	93	63	82	91	83
Prefer not same as last time	78	5	34	13	9	15
Other comment	5	2	3	5		2

(four or more). There was some suggestion in this study that women having their first labour may be slightly more likely to be induced than others, but no evidence that induction was greater for high parity women. Of course, individual hospitals or consultants may have definite patterns, but overall no clear-cut differences emerged.

The observation that induced babies were the expected weight for their gestation is similar to the finding from the survey of *British Births 1970*[21] for births at term or later. That study reported that those induced earlier in pregnancy were more likely to be "small for dates." There was no evidence of such a difference in this study, but numbers induced before the 38th week were small.

While women who were induced had shorter labours than those going into labour spontaneously and they were also more likely to receive pain relief, the assessment of pain levels and of the duration of bad pain was similar in the two groups. So too were their views of their labour experience. Nevertheless, there is no doubt that most women think that spontaneous labour is preferable.

Generally, women are conservative in that they tend to opt for the things they have experienced. This holds particularly for home births but also for hospital births and for having or not having epidural analgesia. It does not hold for those who had an induction, mainly because induction was perceived as "unnatural."

The observation that comparatively few women in social class V were induced merits further research. A small-for-dates fetus is commonly regarded as a major indication for induction and is more likely to occur among these women.

I am indebted to the mothers who answered the questions, my colleagues, particularly Maureen O'Brien, members of the Institute's Advisory Committee, and others. The study was funded by the Department of Health and Social Security.

References

1 Department of Health and Social Security, *On the State of the Public Health for the Year 1975*. London, HMSO, 1976.
2 Tipton, R H, and Lewis, N V, *British Medical Journal*, 1975, **1**, 391.
3 *British Medical Journal*, 1976, **1**, 787.
4 Fedrick, J, and Yudkin, P, *British Medical Journal*, 1976, **1**, 738.
5 Chalmers, I, *et al*, *British Medical Journal*, 1976, **1**, 735.
6 Chalmers, I, Lawson, J G, and Turnbull, A C, *British Journal of Obstetrics and Gynaecology*, 1976, **83**, 921 and 930.
7 Yudkin, P, *British Journal of Obstetrics and Gynaecology*, 1976, **83**, 603.
8 Cole, R A, Howie, P W, and Macnaughton, M C, *Lancet*, 1975, **1**, 767.
9 McNay, M B, *et al*, *British Medical Journal*, 1977, **1**, 347.
10 Bonnar, J, *British Medical Journal*, 1976, **1**, 651.
11 Turnbull, A, *Daily Mail*, 30 June, 1976.
12 Richards, M P M, *Social Science and Medicine*, 1975, **9**, 595.
13 Dunn, P M, *Lancet*, 1976, **1**, 790.
14 Gillie, L, and Gillie, O, *Sunday Times*, 13 October 1974.
15 Walker, P A, Martin, R H, and Higgingbottom, J, *Lancet*, 1972, **2**, 374.
16 Richards, M P M. In press.
17 Lewis, B V, Rana, S, and Crook, E, *Lancet*, 1975, **1**, 1197.
18 Kitzinger, S, Submission to the Department of Health and Social Security from the National Childbirth Trust, 1975.
19 Beard, R, *et al*, *The Management of Labour*. London Royal College of Obstetricians and Gynaecologists, 1975.
20 Baird, D, *Lancet*, 1960, **2**, 557 and 609.
21 Chamberlain, R, *et al*, *British Births 1970*. London, Heinemann, 1975.

(*Accepted 22 June 1977*)

Patients' attitudes to induction and labour

PETER STEWART

British Medical Journal, 1977, **2**, 749-752

Summary

An attempt was made to ascertain patients' attitudes towards planned induction and labour. Twenty per cent of patients had not heard of induction before their pregnancy, and those who had had most probably heard about it from relations and friends rather than the media. Most patients had no firm opinions on induction of labour but were usually glad to have their pregnancy ended. Many considered that they had not been given enough information by the medical staff on their induction. The amount of pain experienced by patients at amniotomy was related to the "favourability" of the cervix. Possibly women with a low cervical score should be given more premedication or inhalation analgesia at amniotomy. Most patients found injections of narcotic agents adequate analgesia in labour. Those patients who did not receive adequate analgesia were principally those who had either very short or quite long labours.

Patients with long labours may benefit from more liberal use of analgesia, but no satisfactory form of analgesia seems to be available for patients who are likely to deliver within two or three hours of induction.

Nuneaton Maternity Hospital, Nuneaton, Warwickshire
PETER STEWART, BM, DOBSTRCOG, registrar

Introduction

Artificial induction of labour has increasingly become part of modern obstetric practice (see table I). But there are sharply conflicting views on the value of induction in reducing perinatal mortality and morbidity,[1-5] however, and O'Driscoll and Stronge have suggested that the emotional stress of induction on the mother is often gravely underestimated.[6] As planned induction of labour is often undertaken for medical reasons and as the value of intervention in certain cases is now under considerable debate among obstetricians, it seemed opportune to evaluate patients' attitudes towards this practice.

Aspects of modern obstetrics are freely debated in the media, so patients should be better informed about current obstetric trends and may have preformed opinions on the management of their pregnancy. I therefore attempted to determine patients' views on their labour with particular reference to planned inductions but also including other aspects that have recently received publicity in the lay press. It was hoped that the information so obtained could be used to guide future obstetric practice in this unit for the benefit of both patients and staff.

Methods

All patients booked for delivery in the Nuneaton Maternity Hospital are invited to attend mothercraft classes, and at about 28 weeks' gestation they are shown round the labour ward, and induction of labour and the various methods of delivery are discussed. In 1976 34·6% of labours in this unit were induced; this is comparable to the rate in other hospitals (table I). All but three of the patients who had