

NCT EVIDENCE BASED BRIEFING: Induction of Labour:

Background:

Induction of labour is the artificial stimulation of uterine contractions to start labour before spontaneous onset. This is usually either by artificially rupturing the membranes (breaking the waters), using prostaglandins or oxytocin or a combination of these methods. The most common reason for induction is prolonged pregnancy (beyond the expected date of delivery); other reasons include fetal growth retardation, maternal hypertension (high blood pressure), pre-labour rupture of membranes (waters breaking) and social factors.

Rates of induction of labour rose dramatically during the late 1960s and early 1970s based on the view that knowing the date of delivery had medical, psychological and social advantages (Chalmers *et al* 1989). However, research suggests that women find induced labour more painful and difficult than spontaneous labour (Cartwright 1979, McCourt & Pearce 2000). During the mid-1970s in England the regional rates ranged from 20% to nearly 50% of births (Chalmers 1979). It was at about this time that there was public outcry about the use of induction for trivial indications and the harmful effects of this were beginning to be recognised (Chalmers *et al* 1989). During the 1980s the rates of induction began to fall.

In industrialised countries induction rates of between 10% and 25% are now common with rates varying between countries, units and individuals. However, there appears to be no evidence or agreement as to an optimum rate (RCOG 2000). The National Maternity Statistics (Department of Health, 1997) show that labour is induced in 20% of pregnancies in England.

The Research:

The Cochrane library has a series of systematic reviews covering induction of labour, due to the large volume and complexity of trial data relating to this intervention. Each review covers a different method of induction and its effectiveness. The Cochrane library also includes a review of routine induction for post-term pregnancy: "Interventions for preventing or improving the outcomes of delivery at or beyond term" (Crowley 2000).

The main conclusion of this review is that trials of induction after 41 weeks show a reduction in perinatal mortality. There is evidence in pregnancies lasting longer than 42 weeks, which are otherwise low risk, that perinatal mortality and meconium stained amniotic fluid is increased. The risk of stillbirth increases from one per 1000 pregnancies at 42 weeks, to two per 1000 continuing pregnancies at 43 weeks (RCOG 2000). There is no evidence that induction of labour increases the likelihood of caesarean (Crowley 2000). On this basis, there appears to be good evidence that induction of labour should be offered routinely to women whose pregnancies continue beyond 41 weeks. There is an increased risk of respiratory distress syndrome in the baby if labour is induced before term. So, accurate dating of gestational age is important in these cases to ensure labour is not induced unnecessarily or when the risks would outweigh the potential benefits.

For women whose membranes rupture spontaneously before labour starts, a large randomised controlled trial suggests that there is no difference in outcome whether induction is started immediately or delayed, provided that the condition of the baby is monitored (Hannah *et al* 1996).

The method of induction of labour depends on the favourability of the cervix. If the cervix is 'unfavourable', the need for induction of labour should be reconsidered (RCOG 2000). If induction is considered necessary and the cervix is unfavourable, evidence supports the use of prostaglandins.

Key Points:

Induction of labour is indicated when there is evidence of a higher probability that the baby or the mother will have a healthier outcome if the baby is born sooner rather than later. Around 20% of pregnant women in the UK have their labour induced, with prolonged pregnancy being the most common reason. After 42 weeks of pregnancy there is a small, significant increased risk of health problems and stillbirth. There is therefore evidence to support offering induction of labour routinely after 41 weeks. Accurate dating is important in these cases to ensure the pregnancy really is 'prolonged' so as not to carry out unnecessary inductions. Women tend to find it more difficult to cope with an induced labour because contractions are intense, frequent and often more painful.

The National Institute of Clinical Excellence (NICE) states that women with an uncomplicated pregnancy should be offered induction of labour when pregnancy goes beyond 41 weeks or, in a term pregnancy, if their waters break before labour starts (2001). Women whose waters break at term should be offered a choice of immediate induction of labour or expectant management not exceeding 96 hours. If a woman decides not to have an induction after 41 weeks, then from 42 weeks she should be offered twice weekly checks of the baby's heart rate and an ultrasound.

References:

- Cartwright A. (1979) The Dignity of Labour? A study of childbearing and induction. London: Tavistock.
- Chalmers I. (1979) The Epidemiology of perinatal practice. Journal of Maternal Child Health, November 435-436.
- Chalmers I, Enkin M, Keirse M. (1989) Effective Care in Pregnancy and Childbirth vol 2. Oxford: Oxford University Press.
- Chamberlain G, Wraight A, Crowley P. (1996) Home Births. London: Parthenon.
- Crowley P. Interventions for preventing or improving the outcome of delivery at or beyond term (Cochrane Review). In The Cochrane Library, Issue 4, 2000. Oxford: Update Software.
- Department of Health (1997) NHS Maternity Statistics, England: 1989-90 to 1994-5. Statistical Bulletin 1997/8 London, Department of Health.
- Hannah ME, Ohlsson A, Farine D *et al*. (1996) Induction of labour compared with expectant management for prelabour rupture of membranes at term. TERMROM Study Group. N Eng J Med 334:1005-10.
- McCourt C, Pearce A. (2000) Does continuity of carer matter to women from minority ethnic groups? Midwifery; 16:145-154.
- National Institute for Clinical Excellence. (2001) Induction of labour. National Institute for Clinical Excellence.
- Royal College of Obstetricians and Gynaecologists. (2000) Induction of labour. <http://www.rcog.org.uk/guidelines/labour.html>

**Developed to inform the NCT Birth Policy.
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STUDY DAYS & WORKSHOPS:

Cost £30.

All study days are open to everyone, unless otherwise stated
BCG - Breastfeeding Counsellors' Group PN - Postnatal TP - Teachers' Panel
Early booking is essential, as a decision is made about the viability of the study day
one month before the due date

2002

16th February	Is local tutoring for me? Aimed at BFC's who have been qualified for three years. Follow up weekend is 13th & 14th April	Please contact Hilary English (020 8339 9577) or Lesley Haslam (01252 543622)	London
21st February	Teaching men in antenatal classes (teaching skills) (TP)	Mary Nolan	London
23rd February	Abnormal labour (TP)	Nicola Winson	Reading
2nd March	Joined up physical skills (teaching skills)	Pam Fenton	Reading
2nd March	ATA update day	Jeanne Langford & Caroline Hunt	London
2nd March	Listening skills	Ruth Langford	Leeds
3rd March	Making parenting real (teaching skills)	Fiona Cowell & Noreen Hart	Reading
3rd March	Mentoring - Explore the role of the mentor (BCG)	Val Brady	Carnforth, N.Lancs
9th March	Domestic violence awareness	Stephanie Ward	Woodham
9th March	Mind your language - A look at what we say and how we say it, affects group members	Jo Glasson & Cathy Welch	North Wrexall - between Bath & Chippenham
11th March	Making labour real (teaching skills)	Mary Nolan	London
16th March	Postnatal depression	Sue Orchard & Teresa Wilson	London
16th March	Positioning & attachment - a practical study day (cost £35)	Hilary English	Hampshire
16th March	Management of labour (TP)	Nicola Winson	Reading
24th March	Communication & relationship skills	Jenny Adamson	Stansted, Essex
13th April	Normal labour (TP)	Lesley Shuttler	London
13th April	Introduction to research - for all who would like to learn in a fun & light-hearted way about 'confidence intervals, randomisation, blinding etc' and how to use in teaching & tutoring	Gillian Fletcher	Southampton
20th April	Pam Fenton's last AOT day - beat the deadline	Pam Fenton	Reading
20th April	Normal labour (TP)	Clare Harding & a midwife	Leeds
20th April	Obstetric update day - "Hot Topics"	Nicola Winson	Reading
25th April	Informed choice: "What does informed choice mean and how do we deliver it?"	Shona Gore & Jeanne Langford	Sunninghill
27th April	Thinking about becoming an AT day	Ann Carrington & Caroline Hunt	London
1st May	ATA update day	Shona Gore & Ann Carrington	London
4th May	Furthering your counselling skills and supervision	Lesley Haslam	Leamington Spa
4th May	All about the pelvis (and its floor!)	Marion Grant	Leeds
8th May	Nurturing ourselves and others. (BCG)	Caroline Deacon & Jo Hargreaves	Redhill, Surrey
11th May	Balancing the demands of work & home. Tips and strategies for handling stress positively. (Open to all NCT members)	Gillian Fletcher	Reading
12th May	Teaching skills update day	Ann Dalry	Reading