

GUIDELINES FOR POST-DATES PREGNANCY

The College of Midwives of British Columbia supports registered midwives in providing primary care for women with post-dates pregnancies. This guideline is intended to assist midwives in offering choices to these women.

When the estimated due date is considered to be accurate, the evidence suggests that in an uncomplicated pregnancy the biological norm is a median duration of 40 weeks and two days (282) and a mode duration of 40 weeks and three days (283). Two standard deviations beyond the median and the mode are approximately 13 days. Using this approach, an uncomplicated pregnancy with certain dates would only be considered outside the standard deviation of normal, if the duration of pregnancy is greater than forty-two weeks and three days (296 days).

Based on a review of the available evidence, and assuming that the well-being of the fetus is being regularly monitored, the following choices for care can be presented when counseling a woman with a post-dates pregnancy:

- expectant management, with induction of labour recommended only if there are specific concerns about the well-being of mother or fetus, or
- induction of labour sometime after 41 weeks at a point of time chosen by the woman and her midwife.

Women experiencing a post-dates pregnancy should be provided with the following information along with the range of options for care available in their community:

- Induction of labour after 41 weeks gestation has been shown to slightly reduce the risk of perinatal death;
- Induction before 41 weeks is not associated with any advantage and increases the likelihood of cesarean section;
- Periodic assessment of fetal heart patterns through non-stress testing (NST) and assessment of amniotic fluid volume (AFI) have been shown to be as effective as more complex forms of monitoring fetal wellbeing. These tests assess well-being at the point they are performed and will need to be repeated if the woman has not delivered by 42 weeks. No form of fetal surveillance can guarantee a positive outcome.
- Midwives are required to refer their clients for a physician consultation visit at 42 weeks. A midwife will generally request one of the above tests just prior to this 42 week consultation so that the results can be provided to the consultant.

Both induction and expectant management remain options for the woman after 42 weeks. The midwife remains the primary care provider in the hospital unless a specific indication for transfer of care arises. Post-term pregnancy alone is not an indication for transfer of care. Home birth remains a choice that midwives can offer up until 43 completed weeks of pregnancy. However, due to the increasing incidence of perinatal mortality and morbidity after 42 weeks, midwives will often recommend hospital birth. If a woman chooses to birth at home after 42 weeks, the midwife should ensure that the woman has information about the increased risks and the limitations of the home setting

in responding to situations that may arise during post-term labour and birth and document this discussion in the antenatal record.

The midwife should be prepared to deal with the complications of post-term pregnancy as listed below.

When a post-dates pregnancy becomes a post-term pregnancy

Post-dates pregnancy is any pregnancy which extends beyond the woman's due date. True post-term pregnancy is defined by the World Health Organization as a pregnancy of 42 completed weeks (294 days) or more, although the term is more and more often used to refer to any pregnancy that goes beyond 41 weeks. Whether post-term pregnancy should be considered an indication for induction of labour, and if so, when, continues to be a source of considerable controversy in both the obstetric and midwifery literature. Early ultrasound increases the accuracy of dating and reduces the number of pregnancies labelled as post-term. With accurately calculated due dates the incidence of post-term pregnancy is as follows:

Incidence:	41 weeks:	27%
	42 weeks:	4 – 15%
	43 weeks:	2 – 7%

Despite considerable research in this area, the reason some pregnancies go beyond term remains unclear.

Complications:

Meconium staining:	approximately 25% of post-term births
Macrosomia:	10 – 20 %
Shoulder dystocia:	8 – 10 % of babies larger than 4,000 g.
Perinatal mortality:	1.0 – 4.0 per 1000 (excluding congenital abnormalities) 1 perinatal death prevented for every 500 -1000 inductions performed after 41 weeks ¹

Meconium: The higher incidence of meconium stained amniotic fluid after 41 weeks has the attendant risk of aspiration should the fetus encounter undue stress in labour. Meconium aspiration is associated with respiratory distress and pulmonary infection. *A Guide to Effective Care in Pregnancy and Childbirth (2000)* reports that in the trials reviewed, induction of labour reduced the risk of meconium stained fluid, but the risk of meconium aspiration syndrome and neonatal seizures were not affected.

¹ Crowley, P., Interventions for preventing or improving the outcome of delivery at or beyond term (Cochrane Review). *The Cochrane Library*, Issue 2, 2003. Oxford: Update Software, This meta analysis of 19 randomized controlled trials states 1 death is prevented in 500 inductions; Menticoglou, S.M. and Hall, P.F. in their *Commentary in the BJOG*, May 2002, analyzing the same literature state 1 in 1000 is more likely.

Perinatal Mortality and Fetal Distress: In addition to the known increase in the rate of perinatal mortality in babies born after 42 weeks, amniotic fluid volume often decreases after 41 weeks due to declining placental function, and this can increase the chances of umbilical cord compression in labour resulting in a non-reassuring fetal heart pattern, with or without meconium, and a decision to deliver by vacuum, forceps or caesarean section. While the literature has associated induction with a reduced perinatal mortality rate, in some studies it was also associated with an increased rate of caesarean section, especially for women having their first baby.

In a population of low risk women with post-dates pregnancies, the perinatal mortality rate (excluding congenital abnormalities) is low – between 1.0 and 4.0 per 1,000. What is significant is that the perinatal mortality rate starts to rise gradually after 41 weeks. While the reported rate varies somewhat depending on the population studied and the methods of analysis, the perinatal mortality rate roughly doubles by 42 weeks as compared to the rate at term, and rises more sharply after 43 weeks. Where it has been evaluated, the perinatal mortality rate at 44 weeks is 4 to 6 times greater than the mortality rate of a term gestation. Where other risk factors, such as hypertension or diabetes, are present, the risk of perinatal death in post-term pregnancy is more significant.

Shoulder Dystocia: While shoulder dystocia is a complication that can also occur with normal birth weight infants and in labours at or before term, the potential for shoulder dystocia increases with the larger babies often associated with post-term pregnancies. There is, however, no clear evidence that routine induction after 41 weeks significantly reduces the rate of shoulder dystocia.

Congenital Abnormalities: There is also an increase in the number of babies born with congenital abnormalities after 42 weeks. It has been suggested that some of these congenital problems may interfere with the fetus' ability to play its role in the initiation of labour, however this remains speculative. Hospitals generally have more resources and expertise to respond to the infant born with an abnormality than are available at an out-of-hospital birth.

Recommendations for Midwifery Management

Midwifery practices may have their own protocols for the management of post-dates pregnancy. These may include an initial discussion of post-dates in early pregnancy at an appropriate time for the woman to consider a dating ultrasound, as well as recommendations for fetal movement counting in the third trimester, and additional remedies to encourage spontaneous labour that are not referenced here. The following suggestions are based on a review of the literature, as well as a number of midwifery and obstetrical guidelines for post-term pregnancy noted in the references.

39 to 40 weeks

- Reconfirm estimated due date;
- Continue to evaluate fetal movement;
- Begin discussion of approaches to post-dates/post-term pregnancy and options for care with the client.

40 to 41 weeks

- Continue to evaluate fetal movement;
- Continue discussion re: risks and options for care including recommended fetal surveillance, options for induction or expectant management after 41 weeks, strategies to encourage spontaneous labour, community standards, college guidelines and the indication for physician consultation by 42 completed weeks.

41 to 42 weeks

- Continue to evaluate fetal movement;
- Recommend fetal assessment (non-stress test, assessment of amniotic volume, etc. as available in the community) and book first assessment for prior to physician consultation (earlier if clinically indicated);
- Refer client for physician consultation by 42 weeks;
- Book consultation visit for client and follow-up fetal assessment in case client has not given birth by 42 weeks;
- Offer vaginal assessment and sweeping of membranes if client is agreeable;
- For women who have been planning a home birth discuss risks, options etc. and consider recommending hospital birth after 42 completed weeks (or 42 plus 3 days);
- Book induction of labour if chosen by the woman or continue expectant management.

42 to 43 weeks

- Continue to evaluate fetal movement;
- Schedule fetal assessment (NST, AFI, etc.) for every 3 days from 42 weeks and daily from 42 weeks plus 3 days onward;
- Discuss recommendations of physician consultant;
- Offer vaginal assessment and sweeping of membranes if client is agreeable;
- Book induction of labour if chosen by the woman or continue expectant management;
- If the woman has declined hospital birth, especially after 42 weeks plus 3 days², discuss the increasing risk and the limitations of the home setting with regard to post-term birth and document accordingly.

Note: A change in fetal status outside of normal parameters (e.g. reduced fetal movement, a non-reactive non-stress test, reduced amniotic fluid volume) is an indication for physician consultation and for hospital birth. The consultant may recommend induction of labour.

When Choosing Induction of Labour

If, after a discussion of risks and benefits, a woman chooses induction after 41 weeks, an accurate assessment of due date is important to avoid the risks associated with prematurity, which can be greater than the risks of post-term pregnancy.

² 42 +3 is the standard deviation of normal - Baskett, T., and Nagele, F., (2000), Naegele's rule: a reappraisal, *Br J Obstet Gynaecol* 107, 1433 - 1435

If induction of labour is either clinically indicated or chosen by the woman, the safest and most effective means available should be offered. The available evidence suggests that sweeping the membranes from 39 weeks reduces the duration of pregnancy and thus the proportion of women seeking induction for post-term pregnancy. The Cochrane Review found that pre-labour rupture of membranes associated with this procedure was not statistically significant and there is no evidence to suggest an associated risk of maternal or neonatal infection. In post-term pregnancy the benefits of sweeping the membranes appear to outweigh the risks.³

The research literature also indicates that women choosing induction should have access to prostaglandin E₂ gel or the PGE₂ insert (Cervidil) to prepare the cervix, unless prostaglandins are specifically contraindicated. For example, the slight risk of uterine hyperstimulation may contraindicate its use if a woman has had a previous caesarean section. Prostaglandins are more likely than oxytocin alone to result in vaginal birth within a reasonable length of time, and to lower the rate of operative delivery associated with induction. If amniotomy is selected as the most appropriate initial approach and then fails to result promptly in the desired uterine contractility, then oxytocic drugs are recommended. The use of oxytocin without amniotomy is also associated with an increased rate of failed induction.

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