Approved by Quality & Patient Safety Committee
20/6/13

INDUCTION OF LABOUR FOR WOMEN WITH A POST-DATES LOW RISK PREGNANCY

This LOP is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this LOP.

1. AIM

- Appropriate management of woman with prolonged pregnancy

2. PATIENT

- Woman under the age of 40 with pregnancy duration exceeding 41 weeks by best available dates

3. STAFF

- Registered Midwives
- Medical staff
- Student Midwives

4. EQUIPMENT

- Cardiotocograph (CTG) Machine
- Doppler

5. CLINICAL PRACTICE

- Discuss option of stretch and sweep to prevent post dates pregnancy
- Verify estimated due dates as over 41 weeks
- Date by :
    - Menstrual dates or from conception dates (in-vitro fertilisation-IVF)
    - If 1st trimester (<12 weeks) ultrasound differs from calculated gestation by 6 days or more alter estimated due date (EDD) accordingly
    - If 2nd trimester (<20 weeks) differs from calculated EDD by 10 days or more, alter EDD accordingly. Do not alter EDD if 1st trimester ultrasound is available
    - Unknown/Unsure last menstrual period (LMP): use earliest ultrasound to estimate EDD

- **Review risk factors**
- Explain to the woman the rationale for offering induction of labour and explain the background risk of stillbirth is low
- Inform woman with the following that they are at a increased risk of stillbirth :
    - Women over the age of 40 years
    - Obesity (Body mass index ≥30)
    - Small for gestational age fetus (<10th centile)
    - Smokers
    - History of decreased fetal movements
    - Pre-existing diabetes
    - Hypertension

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INDUCTION OF LABOUR FOR WOMEN WITH A POST-DATES LOW RISK PREGNANCY cont'd

- Discuss induction of labour with the woman at the antenatal clinic visit closest to 40 weeks
- Give woman the information brochure on induction of labour "Going over your due date: Induction of Labour" (Appendix 1)
- Offer induction of labour from 40+8 weeks gestation and recommend induction of labour no later than 42+0 weeks gestation
- Perform vaginal examination to determine Bishop's Score, if induction of labour (IOL) is planned and organise to occur prior to 42 weeks
- Book induction of labour by calling Birthing Services Manager (in hours), then book antenatal bed if cervical ripening is required

Expectant Management

- Arrange medical consultation regarding ongoing management (to occur by 42 weeks gestation) for those women who wish to await spontaneous labour after 41+6 weeks gestation
- Organise Amniotic Fluid Index (AFI) and twice weekly CTG from 42 weeks gestation
- Recommend induction of labour if initial or subsequent AFI <=5cms

6. DOCUMENTATION

- Antenatal card
- Integrated clinical notes

7. EDUCATIONAL NOTES

- Foley Catheter is cheaper than Prostin and equally effective
- There is no sensitive test for fetal welfare in prolonged pregnancy
- Women should be offered induction at 40+8 to 42+0 weeks, as the present evidence reports a decrease in perinatal mortality without increased risk of Caesarean section[1]
- A Cochrane review of twenty-two trials (2,797 women) assessing membrane sweeping to induce labour, of which 20 compared sweeping of membranes with no treatment, showed that sweeping of the membranes, performed as a general policy in women at term, was associated with reduced duration of pregnancy and reduced frequency of pregnancy continuing beyond 41 weeks (relative risk RR 0.59, 95% confidence interval (CI) 0.46 to 0.74) and 42 weeks (RR 0.28, 95% CI 0.15 to 0.50). To avoid one formal induction of labour, sweeping of membranes must be performed in eight women (number needed to treat (NNT) = 8)[4]
- A Cochrane review of 22 trials included 9,383 women[2]. Compared with a policy of expectant management, a policy of labour induction was associated with fewer (all-cause) perinatal deaths: (RR= 0.31, 95% CI 0.12 to 0.88; 17 trials, 7,407 women. There was one perinatal death in the labour induction policy group compared with 13 perinatal deaths in the expectant management group. The number needed to treat to benefit (NNTB) with induction of labour in order to prevent one perinatal death was 410 (95% CI 322 to 1492). Fewer babies in the labour induction group had meconium aspiration syndrome (RR 0.50, 95% CI 0.34 to 0.73; eight trials, 2,371 infants) compared with a policy of expectant management. For women in the policy of induction arms of trials, there were significantly fewer caesarean sections compared with expectant management in 21 trials of 8,749 women (RR 0.89, 95% CI 0.81 to 0.97).

INDUCTION OF LABOUR FOR WOMEN WITH A POST-DATES LOW RISK PREGNANCY cont'd

8. RELATED POLICIES / PROCEDURES / CLINICAL PRACTICE LOP

- Induction of Labour Policy and Procedure
- Fetal Heart Rate Monitoring
- Obesity in pregnancy, labour and postpartum
- Age and maternity outcomes guideline
- Fetal Growth Assessment in Pregnancy
- Estimating due date (EDD)
- Sweeping Membranes to prevent Post-tern Pregnancy

9. REFERENCES

1 Clinical Practice Obstetrics Committee; Maternal Fetal Medicine Committee, Delaney M, Roggensack A, Leduc DC, Ballermann C, Biringer A, Delaney M, Dontigny L, Gleason TP, Shek-Yn Lee L, Martel MJ, Morin V, Polsky JN, Rowntree C, Shepherd DJ, Wilson K. Guidelines for the management of pregnancy at 41+0 to 42+0 weeks. J Obstet Gynaecol Can. 2008 Sep;30(9):800-23.

2 Metin Gülmezoglu, Caroline A Crowther, Philippa Middleton, Emer Heatley, Induction of labour for improving birth outcomes for women at or beyond term. Cochrane Database of Systematic Reviews. 2012; 13;6:CD004945

3 Flenady V, Koopmans L, Middleton P, Frøen JF, Smith GC, Gibbons K, Coory M, Gordon A, Ellwood D, McIntyre HD, Fretts R, Ezzati M Major risk factors for stillbirth in high-income countries: a systematic review and meta-analysis. Lancet. 2011 Apr 16;377(9774):1331-40.

4 Boulvain M, Stan CM, Irion O. Membrane sweeping for induction of labour. Cochrane Database of Systematic Reviews 2005, Issue 1. Art. No.: CD000451.

REVISION & APPROVAL HISTORY

Endorsed Maternity Services LOPS group June 2013
Reviewed April 2013
Approved RHW Quality Council 16/5/05
Endorsed Maternity Servies Clinical Committee 19/4/05 (addition to point 2 following RCA Oct 2009)
Replaced : Postdates management of women with a low risk pregnancy – Approved Quality Council 17/5/04

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INDUCTION OF LABOUR FOR WOMEN WITH A POST-DATES LOW RISK PREGNANCY cont'd

Appendix 1 - Patient information leaflet

Going over your due date: Induction of Labour

- Normal pregnancy duration is 37-42 weeks from the first day of a woman's last menstrual period or early pregnancy ultrasound. Now that your pregnancy has gone past the due date (40 weeks) you have some choices to make in consultation with your doctor and/or midwife regarding induction of labour.
- You may be offered a "stretch and sweep of the membranes" when you have reached 38 weeks or more. This involves a vaginal examination and stretching of the cervix (neck of the womb) and separation of the membranes from the cervix by the midwife or doctor's fingers. Sweeping of the membranes performed as a general policy in women at term, has been shown to be associated with reduced duration of pregnancy and reduced frequency of pregnancy continuing beyond 41 weeks and to reduce the need for induction of labour. Sweeping of the membranes is generally safe when there are no other complications. Some women find that the procedure can cause discomfort, bleeding and irregular contractions and it may cause you to go into labour.
- If you have a complication of pregnancy such as being 40 years of age or are obese your midwife/doctor will discuss other risk factors that may require an induction of labour earlier. Otherwise your induction of labour will be offered after you are 7 days overdue.
- You will be offered induction of labour because the risk of stillbirth (although very low) increases. (The risk increases from 1:3000 pregnancies at 37 weeks to 3 in 3000 at 42 weeks and six in 3000 in pregnancies lasting longer than 42 weeks) In addition the risk of your baby dying in labour or after birth increases from about 3:1000 pregnancies at 41 weeks to 5:1000 at 42 weeks. The risk for you of stillbirth in your low risk pregnancy remains very low. Babies continue to mature even after 37 weeks. We do not recommend induction of labour earlier than 41 weeks if your pregnancy is uncomplicated, as induction of labour when there is no medical indication may have greater risks for mother and baby. If you would like further information please discuss this with your midwife of doctor.
- A review in 2012 of studies into the effectiveness of induction at reducing infant mortality found that: inducing labour was associated with fewer perinatal deaths (foetus or newborn deaths) and fewer caesarean sections, compared with expectant management (monitoring without induction) some problems in the baby, such as breathing meconium and amniotic fluid into the lungs (meconium aspiration), were reduced with a policy of induction after 40 weeks, but there wasn't a significant difference in the number of babies admitted to neonatal intensive care units. Studies that have compared induction of labour to no induction of labour have not assessed women's experiences and opinions about these choices.
- You may choose not to have your labour induced. If your pregnancy extends 14 days past your due date and you do not want to have an induction of labour, we recommend that you have an ultrasound scan and twice a week fetal heart rate monitoring (CTG) to assess the well-being of your baby: this will quantify how much fluid is around your baby, the best marker of your baby's wellbeing at this stage of the pregnancy. There is every chance you will go into labour spontaneously prior to 42 weeks or prior to a booked induction of labour. However tests such as ultrasound or CTG (cardiotocograph or heart rate monitoring) have not been shown to predict how your placenta will continue to function or how your baby will cope once labour begins.

INDUCTION OF LABOUR FOR WOMEN WITH A POST-DATES LOW RISK PREGNANCY cont'd

- If you choose an induction of labour this will be recommended before 42 weeks. A vaginal examination will be performed prior to your induction to determine how 'favourable', 'ripe' or 'ready' your cervix is. Usually, the more ready your cervix, the induction of labour is likely to be easier.
- If your cervix is not favourable you will need to have either a Foley catheter inserted or Prostaglandin (hormone) gel applied to the cervix in order to make it more favourable. You will be asked to come into the hospital the day before your booked induction if this is required. You will be required to stay overnight in the hospital. Many women do not go into labour with just a Foley catheter or Prostaglandin gel, and require their waters to be broken the next morning and a drip containing oxytocin to get them into labour.
- Foley catheter insertion: If your labour is being induced with a Foley catheter, this is performed by inserting a soft plastic catheter (tube) into the cervix and inflating a small balloon. The catheter usually falls out once the cervix is 'ripe'. You will usually stay in hospital overnight until you transfer to the Delivery Suite for the labour and birth (usually the following morning).
- Prostaglandin gel induction of labour: You will be asked to come into the hospital the day before you are booked for your induction for the application of Prostaglandin gel. This encourages the cervix to soften and dilate. Frequently more than one dose is needed and you will stay in hospital overnight until you transfer to the Delivery Suite for the labour and birth (usually the following morning).
- If your cervix is favourable, (this means thin and starting to dilate) then you will be asked to call your midwife or Delivery Suite 02 9382 6100 at 06:00am on the morning of your booked induction to confirm a bed is available. When you are admitted the induction will be started by breaking your waters. This is done during a vaginal examination, by using a plastic strip with a small hook at the end to break the membrane over your baby's head. This membrane has no nerve-endings, so the baby does not feel any pain. You may have some discomfort from the vaginal examination. You may feel the waters flowing out.
- Sometimes contractions start with the gel or Foley catheter and/or having the waters broken. Usually you will also require a drip (intravenous infusion) inserted into your hand that contains a synthetic hormone called Oxytocin to start or maintain the strength of your contractions.
- Your baby's heart rate will be monitored closely together with the contractions by having a CTG monitor which requires two elastic straps around your abdomen during labour. You will still be able to move around or use the shower as we have a wireless CTG.
- If you have any concerns or questions about your pregnancy or future induction please feel free to talk to your doctor, midwife or call Delivery Suite.

FREQUENTLY ASKED QUESTIONS:

How long will it take for my labour to start?

It is impossible to predict when your labour will start. The more 'ripe' or 'favourable' your cervix is, the less time it will take. First babies, on average, have a longer labour than subsequent ones. For most women having their first baby they will be in hospital for more than 24 hours before their labour starts.

How long will my labour be?

The average length of a first labour is 12 hours - this is timed from when active labour begins (regular strong contractions) not from when milder irregular contractions may start. Subsequent labours are generally shorter.

INDUCTION OF LABOUR FOR WOMEN WITH A POST-DATES LOW RISK PREGNANCY cont'd

What can I have for pain relief?
This is your choice and you can discuss this with the midwife who is caring for you in labour. Some women manage using active birth (position changes, massage, heat and water) for the whole of their labour. Others may prefer to have some pain relief like Morphine or an Epidural. All methods are effective and your choice.

Is there anything I can do to encourage my labour to start?
There have been many suggestions over the years: hot curries, sex, acupuncture, raspberry leaf tea and nipple stimulation. Unfortunately none of these have proven to be effective methods of labour induction.

If I don't want my labour induced how long is it safe to wait?
It is generally safe to wait for normal labour to commence at 41-42 weeks, provided you have a well-grown baby, and you have no other complications. If you prefer to wait after 42 weeks, ultrasound and twice weekly fetal heart rate monitoring can monitor your pregnancy. However, no tests can tell if a baby would be better to be left in the womb or labour induced. If any of these tests produce results that are concerning you would be advised to have an induction.

Where can I find more information?
Please find the link to Cochrane:
http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD004945.pub3/abstract.
http://www.nhs.uk/conditions/pregnancy-and-baby/pages/induction-labour.aspx#close