



# TURNING THE TIDE

INDUCTION OF  
LABOUR



The human body experiences a powerful gravitational pull in the direction of hope. That is why the patient's hopes are the physician's secret weapon. They are the hidden ingredients in any prescription.

*-Norman Cousins*



# OBJECTIVES

- Review women's opinions on post-dates induction
- Review current evidence and guidelines around induction of labour between 41 and 42 weeks of pregnancy
- Review the evidence around measures to reduce the need for induction
- Stimulate discussion about next steps needed to be taken to reduce intervention rates in post-dates pregnancies.



# Post-Dates Pregnancy in BC<sup>1</sup>

- Between 13 and 15 % of all pregnancies will go beyond 41 weeks of gestational age
- The SOGC and RCOG have issued guidelines recommending induction be offered between 41 and 42 wks
- In Practice this is often interpreted as a recommendation that labour should be induced at 41 weeks
- 15-20% more women will be induced if routine induction is advanced from 42 to 41 weeks of pregnancy<sup>1</sup>



# Post-Dates Pregnancy in BC<sup>2</sup>

<b>PRIMIP CESAREAN SECTION RATE IN SPONTANEOUS VS INDUCED LABOURS</b>						
Gest. Age (weeks)	2000-1		2001-2		2002-3	
	Spont. Labour	Induced Labour	Spont. Labour	Induced Labour	Spont. Labour	Induced Labour
41	24.24%	39.38%	25.86%	40.87%	27.13%	41.83%
41-42	27.05%	44.16%	27.85%	40.3%	29.10	46.11%
>42	23.81%	75%	25%	66.67%	10%	50%



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# The management of prolonged pregnancy—an analysis of women's attitudes before and after term

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**Abstract**



# Prolonged Pregnancy – Women's Preferences

Robert & Young (1991)<sup>3</sup>

- Expectant Management vs induction of labour at 42 weeks
- Stated preference was expectant management
- Questionnaire related to preference administered at 37 and 41 weeks gestation



## Prolonged Pregnancy – Women’s Preferences

- 44% at 37 weeks and 31% at 41 weeks preferred expectant management
- 0% of women moved from preferring induction to expectant management between the 2 questionnaires





# Prolonged Pregnancy – Women's Preferences

Reasons given at 37 weeks for preferring induction:

1. Could not stand the thought of being pregnant for more than 42 weeks
2. No benefit in waiting
3. No risks involved in having labour induced
4. Concern regarding fetal size
5. No member of the family available after 42 weeks gestation
6. Advice from friends or family
7. No support all available after 42 weeks
8. Difficulty complying with expectant management
9. Earlier birth meant earlier opportunity of joining their husbands
10. Advice from a doctor or midwife
11. Impatience



# Prolonged Pregnancy – Women’s Preferences

Authors comments:

- Greater need for patient education
- Abandon the term “expected date of delivery”
- The trend towards induction for post dates, although initially started by the medical profession is, at least to some extent, being perpetuated by pregnant women themselves



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## **Feasibility study of a Latest Date of Delivery (LDD) system of managing pregnancy**

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# Latest Date of Delivery (LDD) system of managing pregnancy<sup>5</sup>

- LDD = 42 weeks, explained extensively
- Preliminary Survey, 62 subjects
- 64% would agree to an LDD, 11% would not
- 40% would prefer and LDD to EDD, 36% weren't sure
- 74% if given only and LDD would still work out their EDD



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**informa**  
healthcare

**ORIGINAL ARTICLE**

**Women's experiences and attitudes towards expectant management and induction of labor for post-term pregnancy**

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- In 2003 the vast majority of units in Sweden and Norway induced labour at 42 weeks gestation
- Prospective study of 508 women randomized at 41 weeks to either induction of labour or expectant management
- Questionnaires were given to all women at the time of inclusion and a phone questionnaire administered 6-8 months post partum.



At the time of inclusion antenatally:

- 74% of all participants would have chosen induction at 41 weeks if given the option
- 41% of women believed that the ‘complication’ rate would be increased with induction

Post-partum:

- 74% of women randomized in the induction arm would hope to be randomized in this arm again
- 38% of women in the expectant management arm would hope to be randomized into this arm if the study was repeated.
- The induction group reported the contractions in labour to be more intense and frequent compared to the expectant group.
- A positive labour experience was reported by 84% of all women undergoing induction



# **Have Women Become More Willing to Accept Obstetric Interventions and Does This Relate to Mode of Birth? Data from a Prospective Study**

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# Comparing acceptance of OB interventions 1987 vs 2000

- Women in 2000 were more willing to accept Obstetrical interventions
- In the 2000 group:
  - Women with a high willingness to accept intervention had a near 2 fold increase in operative or instrumental birth
  - Were more likely to have an epidural
  - When corrected for epidural use, the mode of delivery difference disappeared



Induction at 41 vs 42 to weeks is there a difference in outcomes?

- Cochrane Review<sup>6</sup>
  - 11 trial intervened at or after 41 weeks, 5 trials at or after 42 weeks
  - Relative risk of peri-natal death not significant in the 41 week group, but was significant when the 2 groups were combined
  - No difference in C/S rate with induction vs. expectant management



# SOGC Guideline Pregnancies from 41<sup>0/7</sup> to 42<sup>0/7</sup> weeks<sup>7</sup>

## Reviewed:

- Interventions to decrease the incidence of pregnancies beyond 41<sup>0</sup>-42<sup>0</sup> weeks
- Evidence for induction vs. expectant management between 41<sup>0</sup> and 42<sup>0</sup> weeks
- Role of antenatal fetal monitoring between 41<sup>0</sup> and 42<sup>0</sup> weeks



## Interventions to decrease the incidence of pregnancies beyond 41-42<sup>0</sup> weeks

- Accurate Pregnancy dating using 1<sup>st</sup> trimester US' s
- Sweeping of Fetal Membranes



# Accurate Pregnancy dating using 1<sup>st</sup> trimester US's

- The use of 1<sup>st</sup> and 2<sup>nd</sup> trimester US' s to revise dating of pregnancies when necessary reduces the rates of delivery at >41 and 42 wks gestation<sup>8,9</sup>
- Rate of induction for post dates >41 weeks was reduced using the 1<sup>st</sup> trimester US vs. 2<sup>nd</sup> trimester US, 5% vs. 13%.<sup>10</sup>
- Using 1<sup>st</sup> trimester US resulted in re-dating EDC in 41.3% of cases<sup>10</sup>



# Accurate Dating Using US's

- SOGC recommends 1<sup>st</sup> trimester US, 11 – 14 weeks GA
- 1<sup>st</sup> trimester US, difference >5 days use the US EDC
- 2<sup>nd</sup> trimester US, difference >10 days use the US EDC



# Sweeping of Fetal Membranes

- Cochrane Review<sup>11</sup>
  - 22 trials, sweeping from 38-41 weeks
  - Sweeping of membranes at term reduced the frequency of pregnancies continuing after 41<sup>0</sup> and 42<sup>0</sup> weeks
  - No increased risks of SROM, GBS colonization or maternal/neonatal infection
  - NNT = 8 sweeps to prevent one induction of labour



# Sweeping of Fetal Membranes

- SOGC recommendation:

Women should be offered the option of membrane sweeping commencing at 38 weeks to 41 weeks, following a discussion of risks and benefits





# Induction vs. Expectant Management at 41 weeks

- Hannah Trial<sup>12</sup>
  - RCT, randomised at 41 week or more.
  - Those assigned to be induced had to be induced within 4 days of randomization
  - No difference in neonatal outcomes
  - Lower C/S rate in those women randomized for induction
  - BUT the monitored group did not have the benefit of prostaglandins when it came to their inductions



# Induction vs. Expectant Management at 41 weeks

- Cochrane review (2006)<sup>15</sup> conclusion:  
A policy of labour induction after 41 completed weeks or later compared to awaiting spontaneous labour either indefinitely or at least one week is associated with fewer perinatal deaths. However, the absolute risk is extremely small. Women should be appropriately counseled on both the relative and absolute risks.



# Induction vs. Expectant Management at 41 weeks

- SOGC Guideline recommendations:
  - Women should be offered induction at 41<sup>0</sup> to 42<sup>0</sup> weeks, as the present evidence reveals a decrease in perinatal mortality without increase risk of C/S



# Post-dates Fetal Assessment

- No evidence from RCT's on the benefit of antenatal testing in this setting
- Clinical practice is that monitoring begins after 41 completed weeks of pregnancy which usually consists of a Non-stress Test (NST) and US assessment of the fetus
- US assessment of fetal well-being can be accomplished by:
  - Amniotic fluid index (AFI)
  - Biophysical profile (BPP)
  - Deepest Vertical Pocket (DVP)



# Post-dates Fetal Assessment

- SOGC guidelines
  - Antenatal testing used in the monitoring of the 41-42 week pregnancy should include at least a non-stress test and an assessment of the amniotic fluid volume



# Pregnancy between 41<sup>0</sup> and 41<sup>6</sup>

- Inform women of their options and risks/benefits of induction vs. expectant management
- Take steps to reduce the likelihood of post-dates pregnancy: early US and sweeping the membranes
- Timing of induction after 41 weeks depending on the status of the cervix, woman's wishes and fetal well-being.



# Questions going forward?

- Does fetal assessment add anything to the management of pregnancies 41-42 weeks, or does it add to maternal anxiety?
- How do we best educate women to change the perception of pregnancy in this time period?
- How do we change professional approach to post-dates pregnancy to reduce induction rates at 41<sup>0</sup> weeks?
- Or....do we just induce everyone at 41 weeks?....
- Others?



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