Policy Overview

This policy will ensure a consistent approach by all obstetrical care providers inducing labour. This consistent approach includes: appropriate timing of induction and safest choice of induction method with the goal of achieving optimal maternal and perinatal safety.

This policy includes:

- Policy- Induction of labour
- Policy- Booking of Induction
- Policy- Foley Catheter – cervical ripening
- Policy- Prostaglandin use
- Policy- Artificial Rupture of membranes
- Policy- Oxytocin infusion
- Appendix- Induction booking request form (to be completed by physician/midwife and sent to OBS)
- Appendix- Induction of labour- patient form (to be distributed by physician/midwives office)
- Appendix- Induction of labour- what to expect after cervical ripening form (to be given out at hospital)
- Appendix- Induction documentation form (to be filled out at the hospital)

Induction of Labour

Goals of Induction

1. Avert anticipated adverse outcomes associated with the continuation of the pregnancy while maximizing maternal satisfaction
2. Eliminate ineffectual failed inductions leading to increased rates of interventions such as caesarean section
3. Effect uterine activity sufficiently for cervical change and fetal descent without causing fetal compromise
4. Allow as natural a birth experience as safely possible

Contraindications

- Placenta previa, vasa previa or cord presentation
- Any contraindication to labour i.e. abnormal fetal heart rate, etc.
- Abnormal fetal lie or presentation i.e. footling breech or transverse
- Prior classical or inverted T uterine incision- confirmed and documented
- Significant full thickness myometrium uterine surgery (confirm and documented)
- Active genital herpes infection
- Pelvic structural deformities
- Previous uterine rupture
- Invasive cervical carcinoma
- Unexplained vaginal bleeding

Definitions

Induction of labour- The initiation of contractions in a pregnant woman who is not in labour to achieve a vaginal birth

Successful induction of labour- A vaginal delivery with optimal maternal and neonatal outcomes

Cervical Ripening- The use of pharmacologic or other means to soften, efface and/or dilate the cervix in order to increase the likelihood of a vaginal delivery. Cervical ripening agents are contraindicated in the absence of normal tests of fetal well-being (and in women with a history of uterine surgery)

Tachysystole- Refers to greater than 5 contractions per 10 minute period averaged over 30 minutes. This is further subdivided into two categories, one with and one without fetal atypical or abnormal FHR pattern by EFM

Post-dates induction- Is defined as an induction performed when a pregnancy goes beyond seven days of the expected day of birth (EDB) or 41 weeks. In the absence of additional indications, consideration for an induction will occur at or after 41 weeks (based on first trimester ultrasound if available)

Indications/Urgency Scale

Urgent (immediate)

- Preeclampsia greater than or equal to 37 weeks
- Significant maternal disease not responding to treatment
- Significant, but stable antepartum bleeding
- Chorioamnionitis
- Suspected fetal compromise

- Term pre-labour rupture of membranes (PROM) with maternal GBS positive culture, or GBS unknown

Less urgent indications (within 48hrs)

- Diabetes mellitus (glucose control may dictate urgency)
- Gestational hypertension greater than or equal to 38 weeks
- Alloimmune disease at or near term i.e. RH sensitization
- Intrauterine growth restriction
- Oligohydramnios
- PROM at or near term with GBS negative culture
- Post-dates (greater than 41+0 weeks) or Post term (greater than 42+0 weeks)
- Uncomplicated twin pregnancy- greater than or equal to 38 weeks gestation
- Intrauterine fetal demise in a prior pregnancy
- Intrauterine fetal demise in current pregnancy
- Logistic problem (rapid labour, distance to hospital) *suggest no earlier than 39 weeks
- Advanced maternal age (greater than 40 years old and greater than 39+0 weeks gestation)

Unacceptable reasons for Induction

- Suspected fetal macrosomia in a non-diabetic woman (no reduction in incidence of shoulder dystocia, but twice the risk of caesarian section)
- Absence of fetal or maternal indication
- Care provider or patient convenience

Procedure

1. Proposer of treatment is to obtain and document informed consent. As elective induction is associated with potential complications, it should only be undertaken after establishing accurate gestational age, ideally based on first trimester ultrasound, fully informing the woman of the reasons for induction, method and risks, including failure to achieve labour and possible risk of caesarian section.
2. Patients should be counseled regarding timing of induction as increased risk to the neonate beyond 42 weeks, and more risk and higher rates of failure before 41 weeks.
3. If induction of labour is being considered the following should be addressed: indication for induction, contraindications, gestational age, cervical favourability, fetal presentation, fetal well-being/ fetal heart rate and membrane status.
4. Indication for induction must be documented on “Induction Booking Request” form.
5. If the cervix is unfavourable, as determined by Bishop’s score, ripening of the cervix should be considered. Bishop scoring should be done on each patient and a score less than or equal to 6 indicates an unfavourable cervix and greater than 6 indicates a favourable cervix
6. The practitioner should consider consultation with anesthesia, an obstetrician, or another obstetrics physician as appropriate.
7. Methods of labour induction include mechanical and pharmacologic means. The method chosen by the practitioner and patient should match the situation. They should consider the degree of urgency of the indication and the status of the cervix. The rationale must be compelling, convincing, consented and documented. Optimal choice of the method depends on the pre-induction status of the cervix, and patient preference/choice.
8. Inductions should be prioritized according to the urgency of the clinical situation and the availability of resources.
9. If attempted induction does not achieve labour, method utilized should be re-evaluated.

Booking of Induction

Scope

This policy applies to all physicians, midwives, nurses and clerks involved in the scheduling and prioritization of obstetrical inductions.

Purpose

Provision of safe obstetrical care to all patients is of highest priority. Induction is indicated when the risk to the mother and/or fetus of continuing pregnancy exceeds the risk associated with inducing labour and birth. The indication must be convincing, compelling, consented and documented. This policy outlines the process for scheduling and prioritizing obstetrical inductions in order to maintain safe and evidence based care.

Policy

1. The physician/midwife will provide request for induction of labour by faxing the completed "induction booking request form" along with antenatal sheets to the obstetrics nurse to fill out the form over the phone.
2. Informed consent, obtained by the physician/midwife, will be documented for all procedures.
3. Induction for postdates will not be delayed beyond 42 weeks.
4. Each hospital will be independently responsible for determining appropriate/safe number of booked inductions on a daily basis.
5. If a difference of opinion arises between the obstetrics nurse/delegate and physician/midwife on call related to the appropriateness of a requested obstetrical procedure, the clinical manager and/or OB on call physical/midwife (whether at the same or alternate site) will be consulted and the case will be reviewed, if necessary.

Procedure

1. When the obstetrics unit receives an "induction booking request form" this form will be reviewed by one of the obstetrics nurses and written in the calendar in the inductions binder or calendar. The request for induction form will be filed attached to the binder/calendar.
2. For post-dates inductions, ideally the booking request form sent in within the 41st week.
3. In the event that this timing will not work for the staffing, or additional procedures are already booked for that day, or if indication is not convincing, compelling or timing appropriate (as per SOGC indications for induction) the obstetrics nurse will call the obstetrics physician/midwife to discuss a plan for rebooking, or reviewing the case.
4. Once the nurse has confirmed this day will work, they will fax the booking request form back to the physician/midwives office with the confirmed date of potential induction so they can confirm with their patient. If a case with a more urgent indication presents itself it is the responsibility of the physician/midwife to speak with the other affected physician/midwife to discuss prioritization of the cases.

Foley Catheter for Cervical Ripening

Purpose
This policy is to ensure standardized usage of Foley catheter for cervical ripening/induction.

Policy
To increase the success of a vaginal delivery with an unfavourable cervix, several effective cervical ripening methods can be applied that include mechanical and pharmacologic options. Neither amniotomy nor oxytocin are effective cervical ripening agents and should not be used as such.

Background
Mechanical options of cervical ripening include balloon devices (Foley catheters) that apply pressure on the internal OS of the cervix to stretch the lower uterine segment and increase the release of local prostaglandins.

Indications
2001 Cochrane review reported mechanical methods resulted in less tachysystole with fetal heart rate changes than prostaglandins and misoprostol but no difference in caesarian (CS) rates. Compared with oxytocin alone in women with an unfavourable cervix, the CS rates were reduced with mechanical methods.
Intracervical Foley catheters are acceptable agents that are both in the setting of a vaginal birth after CS and in the outpatient setting.
Double-lumen catheters may be considered a second-line alternative.
Foley catheters are not associated with increased rates of maternal infection (chorioamnionitis and endometritis) or neonatal infection.

Equipment
- PPE as appropriate
- #14-#18 Foley catheter with a 30cc balloon
- Catheter insertion tray
- Catheter clamp/spigot
- 1- 60 ml syringe
- 30-90 ml normal saline
- Vaginal speculum
- 1 package 4X4’s
- Tape

Procedure
1. Proposer of treatment to obtain and document informed consent
2. Pretest Foley balloon before insertion
3. Using sterile technique, the Foley catheter is inserted into the cervical OS by the physician/midwife
4. Inflate the balloon with 30-60ml of sterile water
5. Tape tubing to patients leg and clamp/insert spigot
6. Remove catheter within 24 hours if it hasn’t fallen out spontaneously
7. Provide post-insertion teaching

8. Document the vaginal exam findings: dilation, effacement, station of the presentation part and its application to the cervix as well as the procedure.

Prostaglandin Use for Induction of Labour

Indications

Initiation and/or continuation of cervical ripening of patients in whom there is a medical or obstetrical indication for the induction of labour.

Contraindications

- Any prior uterine incision
- Contraindications to induction of labour, as per above

Equipment

- PPE as appropriate
- Sterile water soluble lubricant
- Fetal monitor
- Pre-packaged prostaglandin product

Procedure

1. Proposer of treatment to obtain and document informed consent.
2. Assess uterine activity, fetal well-being (20 min fetal monitoring strip, minimum), and maternal vital signs prior to insertion.
3. After administration of prostaglandin, continuous electronic fetal monitoring is required for a minimum of 1-2hours. Patient should be in bed for this time as this allows the medication to swell and stay in the correct location. Patient may resume normal activities once observation period is complete.
4. Obstetrical physician/midwife/nurse may remove or instruct patient to remove the insert based on assessment. Indications for removal include:
    a. Tachysystole
    b. Onset of spontaneous labour
    c. Spontaneous rupture of membranes
    d. 30 minutes prior to oxytocin administration
    e. Atypical or abnormal fetal heart rate characteristics
    f. 12 hours after insertion (or as per physician/midwife order)
5. When patient is deemed acceptable to be discharged patient teaching will occur, and the prostaglandin information sheet will be given to and reviewed with the patient.
6. All discharged patients will be given instruction when to return.

Artificial Rupture of Membranes

Policy
Amniotomy creates a commitment to deliver. The risks of infection increases with the duration of ruptured membranes, therefore, reasons for induction should be convincing, compelling and documented. Cervix accessibility and favourability should be assessed prior to this procedure.

Purpose
This policy will ensure a consistent approach, by all obstetrical care providers, to induce labour.

Contraindications
- Unengaged vertex
- Contraindications to induction of labour, as per above

Equipment
- Sterile gloves
- PPE as appropriate
- Sterile water soluble lubricant
- Amni-hook
- Electronic fetal monitor
- Pads or extra linen

Procedure
1. Proposer of the treatment to obtain and document informed consent (verbal consent appropriate). This should be documented in the notes.
2. Have the patient empty her bladder prior to the procedure.
3. Assess and document uterine activity, fetal well-being, and maternal vital signs prior to ARM.
4. Position the patient ensuring her comfort and privacy. Place the absorbent pads underneath.
5. Perform cervical assessment and ARM.
6. Gentle fundal and suprapubic pressure may be applied as required to decrease risk for cord prolapse (Note: Severe variable or prolonged fetal heart decelerations are indicators of cord compression and possible cord prolapse).
7. After ARM, the practitioner should palpate the presenting part until it rests on the cervix to ensure cord prolapse does not occur.
8. Following ARM document the amount, colour, and consistency of the fluid.
9. Document fetal heart rate following ARM.
10. Re-evaluate fetal heart rate and contractions again 30minutes after the amniotomy if not using continuous monitoring. Then Reassess q1 hour if in latent phase and q 15mins if in active labour.
11. Take temperature q4 hours if normal or q1hour if greater than 37.5 degrees.
12. Keep vaginal exams to a minimum, and when required, use aseptic technique.

Use of Oxytocin

Purpose

This policy will ensure a consistent approach, by all obstetric care providers, to induce labour. The goal of this policy is to maximize optimal maternal and fetal outcomes. This document contains information and is intended to act as a resource for the assessment and monitoring of maternal and fetal health during an oxytocin infusion for the induction of labour.

Contraindications

- Contraindications to induction of labour, as per above

Alerts

1. Oxytocin should not be initiated until at least 30 minutes after removal of the cervidil due to the potential for tachysytole. Oxytocin should be delayed until at least 6 hours after application of prostaglandin gel.
2. Oxytocin can have an antidiuretic effect when high doses (greater than 40mU/min) are used.

Policy

1. The cervix should be favourable with a Bishops score greater than 6 for membranes rupture. (Oxytocin induction is more effective with a rupture of membranes).
2. Oxytocin dosage and IV solution will be independently double checked prior to the initiation of the infusion.
3. The infusion will be administered through a pump, which will be connected into a mainline IV at the port closest to the patient.
4. Continuous fetal and uterine monitoring will be provided.
5. One to one care will be provided during an oxytocin induction.
6. Increase oxytocin dose as ordered until active labour is achieved. See order-set for dosages.

Equipment

- PPE as appropriate
- Administration set and solution for mainline IV
- Infusion pump, tubing, and solution for secondary line
- Oxytocin premixed bags from pharmacy (30IU in 500cc of Ringers Lactate)
- Monitoring equipment for vital signs and fetal health surveillance

Procedure

1. Proposer of treatment to obtain and document informed consent.
2. Determine the cervical Bishop score and document (see Induction Documentation form).
3. Assess and document maternal vital signs, findings of vaginal exam to indicate dilation, effacement, station of presenting part and its application to the cervix.
4. Apply external fetal monitor to the patient for a minimum of 20 minutes prior to the induction.
5. Prepare equipment for mainline IV and initiate IV as per order.

6. Pharmacy prepares oxytocin for induction of labour. If pharmacy- prepared oxytocin is unavailable, prepare oxytocin infusion utilizing an independent double-check of dosage and IV fluid as per physician/midwife order (Suggested low dose oxytocin protocol).
7. Label oxytocin tubing, attach to the oxytocin solution, and connect to the infusion pump using the medication library. Piggyback the oxytocin line to the mainline IV at the port closest to the patient.
8. Initiate the infusion as per physician/midwife order. (Suggested low dose oxytocin protocol see page 10).
9. Increase the rate as per physician/midwife order. An increase above the maximum rate in the low dose oxytocin induction protocol or utilization of a high dose oxytocin induction protocol requires a physician/midwife order and a physician/midwife reassessment.
10. Continuous fetal heart rate monitoring and document on the partogram: fetal heart rate characteristics, uterine resting tone, frequency, duration and intensity of contractions q15 minutes (unless the patient condition warrants more frequent assessment).
11. Assess and document maternal BP and pulse at each dosage change and then q30minutes unless patient condition warrants more frequent assessment.
12. Monitor and document maternal temperature on initiation of the infusion and then q4 hours unless patient condition warrants more frequent assessment.
13. Decrease or discontinue the infusion and notify the physician/midwife if:
    a. The contractions are less than 2 minutes apart and last 90 seconds or more.
    b. The uterus does not return to resting tone between contractions.
    c. Atypical or abnormal fetal heart rate characteristics develop.
14. Track oxytocin line from the patient back to the pump with every change of nursing/RM personnel and document on the partogram.
15. Document any dosage changes and interventions during care.
16. If SROM or ARM, do not increase dose for another 30 minutes.

Restarting Oxytocin

When oxytocin is discontinued for less than 20-30minutes and the FHR is normal, contraction frequency, intensity and duration are normal it is recommended that oxytocin be restarted at half of the rate prior to the discontinuation. Review the Case and findings with the most responsible provider prior to restarting oxytocin.

If oxytocin is discontinued for more than 30-40minutes it is recommended that the infusion be resumed at or near the initial dose.

Protocol for LOW DOSE oxytocin infusion

1. Mainline IV 1000cc Ringers Lactate
2. Piggyback 5IU of intravenous oxytocin in 250cc of Ringers Lactate
3. Commence at _____ (1-2mU/min)
4. Increase by _____ (1-2mU/min) every 30 minutes until contractions every 2-3 minutes, lasting 45-60seconds. DO NOT exceed 30mU/min.

Note: Usual does for good labour is 8-12mU/min.

References

MoreOB and perinatal Death review, 2010
Indications urgency scale SOGC, 2013
North Muskoka LHIN (care Connections) 2015. Induction of Labour Policy and Procedure

Appendix

See attached

MUSKOKA ALGONQUIN HEALTHCARE

Induction Booking Request Form

- To be completed by the physician/ midwife or via phone with obstetrics nurse
- Contact on-call physician and charge nurse/delegate for immediate/urgent indications
- The patient is required to call the obstetrics unit 1 hour prior to coming into the obstetrics unit on the date specified.

Patient: _____ Age: ___ Health Card #: _____
G: ___ P: ___ Physician/Midwife: _____ Patient's phone #: _____

Induction Date Requested: _____
EDD: _____ based on LMP ___ 1st Trimester us___ 2nd trimester us ___
GA on requested induction date: _____
Date of most recent vaginal examination: _____
Bishops score ____ or cervical dilation/ effacement _____

Please indicate reason for induction with a check on the urgency of the induction indication table below

- Potential wait times from the submitted induction date request is based on the urgency of the induction indication and obstetrics unit workload
- The on call physician and the MRP (physician/midwife) and the nurse in charge will be contacted for any immediate/urgent considerations
- If for any reason the induction CANNOT be done on the specified date, the patient will be called in for a NST as required.

Urgency	Indication for Induction	Reason	√	Urgency	Indication for Induction	Reason	√
Immediate (1 day)	Atypical/abnormal fetal status	1		Within 4 days	Perinatal Death	10	
	Intrauterine growth restrictions	2			Logistical reasons	11	
	Significant antepartum bleeding	3			Gestation 41+ 0 with normal fetal health	12	
	Clinical signs of chorioamnionitis	4			Chronic disease/essential hypertension	13	
	Gestational hypertension with adverse conditions	5			Other obstetrical/medical condition	14	
	Significant maternal disease not responding to treatment	6			• Other: Insulin dependant gestational diabetes. Book pt. when ____ wks.	15	
	Term PROM GBS unknown or positive	7					
Within 2 days	Gestational hypertension without adverse conditions	8					
	Term PROM, GBS negative	9					

Reviewed by obstetrics nurse: _____ Date: _____

Tentative booked induction date/time: _____

Re-fax form to physician's/ midwife's office: Date/time faxed_____

MUSKOKA ALGONQUIN HEALTHCARE

INDUCTION OF LABOUR: WHAT TO EXPECT

What does induction of labour mean?
Induction of labour means to start labour with a medical procedure rather than waiting for it to begin naturally. The purpose of induction of labour is to help start the process that leads to the birth of your baby. Most women will start naturally, but for some a health care provider may need to help start the process.

When is labour induction recommended?
The following are some common reasons for recommending induction of labour:

- a pregnancy that has continued past the due date
- your baby's growth is less than expected
- low amniotic fluid volume
- breaking of the water (rupture of the membranes) before labour begins
- medical conditions of the mother or baby (e.g. high blood pressure, diabetes)
- infection

The decision to induce your labour is made when the benefits of starting your labour are more important for you and/or your baby's health than the risks that may occur. Your doctor or midwife will discuss your situation and the available options as well as the possible risks and complications of labour induction.

How long does labour induction take?
Induction can take several days or a few hours depending on how ready your body is for labour. Induction for women having the first baby can take several days from the start of induction to the birth.

What are the different types of induction?
There are many different ways to induce you depending on how ready your body is. This may include:

1. Preparing the body for labour by "ripening" the cervix (making the cervix thin, soft and slightly open). This involves inserting a prostaglandin medication into your vagina, either in the form of a tampon-like insert or a gel.
2. Your doctor or midwife may insert a foley catheter into your cervix (see below)
3. Your doctor or midwife may break your water
4. A medication called oxytocin may be given to you through an intravenous into your vein.

Ripening the Cervix

This method has three options that are used to soften and dilate your cervix. The first is a foley catheter, which is a soft hollow tube with a balloon at its tip that is placed in the cervix. The catheter causes the cervix to become thin and soft for induction by mechanically stretching the cervix and stimulating the production of naturally occurring hormones.

The second is the use of a prostaglandin medication attached to a string, which is inserted into the vagina where it is left in place until labour starts or for 12 hours. If labour has not started, it may be removed and replaced at that point.

The third is the use of prostaglandin gel, a hormone gel that is inserted into the vagina to soften and open the cervix. Prostaglandin gel works slowly and more than one application may be needed.

You and your baby will be monitored for one to two hours after the insertion. Unless there is a reason for you to stay in hospital, you will then go home.

I understand that:

- If I have any questions about timing of the labour induction processes I can call my obstetrical physician or midwife. I can also contact the local obstetrics department with any problems.
- I must call the obstetrics department one hour before arriving for my scheduled induction to confirm my appointment time and whether or not my induction will go ahead as planned
- The hospital admits patients based on medical need and priority. In some cases, and after speaking with my doctor or midwife, the hospital may need to change the time of my induction or reschedule it for another day
- The obstetrics department or midwife will let me know if my induction needs to be rescheduled. If my induction is rescheduled, I may need to have a non-stress test or an ultrasound before I am given an new date and time for induction

TIME AND DATE OF INDUCTION: _____

Obstetrics Department at Huntsville Hospital: 705-789-0022 ext. 2261
Obstetrics Department at Bracebridge Hospital: 705-645-4404 ext. 3272

What to Expect After Cervical Ripening

Now that the procedure is complete, you will be going home.

You have had_____inserted to help prepare your cervix for labour.

Common side effects from this medication are:

- Slight backache
- Mild stomach upset
- Contractions
- Diarrhea
- Cramps

Taking care of yourself when you are at home:

- You may eat and drink normally. If you feel the effects of the medication, a lighter meal is suggested.
- When going to the bathroom please wipe carefully so you don't accidentally remove the prostaglandin insert.
- You may have a shower, but not a bath.
- Try to get some rest.

If you have any questions at any time, have concerns, or are no longer comfortable please call the obstetrics department, page your midwife, or come back into the hospital to be reassessed.

Muskoka Algonquin Healthcare Obstetrical Units:
Bracebridge Site: 705-645-4404 ext. 3272
Huntsville Site: 705-789-0022 ext. 2261

Please return to the obstetrics unit at this time: _____

Call the Obstetrics Unit or Page Your Midwife if:	**How to Count Fetal Movements:**
• You have contractions occurring approximately every 5 minutes or less, they last longer than 30 seconds over a period of one hour • If you feel like you are not getting a break between your contractions(one on top of the other) • If you water breaks (leaking of clear fluid from the vagina) • Prostaglandin medication or foley catheter insert falls out • If there is bright red bleeding (like a menstrual period) from the vagina (pink mucous is normal often means labour is starting) • If there are decreased fetal movements. Your baby shouldn't stop moving following a cervical ripening. • You are no longer comfortable • You have questions, or concerns	• Lie on your side and relax • Mark down each time you feel the baby move • Continue to record fetal movements until you feel six • You should feel a minimum of six movements in 2 hours

MUSKOKA ALGONQUIN HEALTHCARE

Induction Documentation Form

(To be used on obstetrics unit)

Physician/midwife: _____

Patient Information						
Weeks gestation:_____ para:_____ gravida:_____	Bishop score	0	1	2	3	Patient score
Expected date of confinement:	Station in relation to spines	-3	-2	-1 to 0	1-2	
Reason for induction:	Cervix dilatation (cm)	0	1-2	3-4	>4	
	Length (cm)	3	2	1	0	
	Consistency	Firm	Med	Soft		
	Position	Posterior	Mid	Anterior		
					Total:	

Initial Induction Agent/Method					
Date/Times of Administration	Agent/Method	Dose	Date/Time Patient Sent Home	Inpatient (Indicate reason)	MRP
	□ Foley				
	□ Prostin E2				
	□ Cervidil				
	□ Prepidil				
	□ Rupture of membranes				
	□ Oxytocin				

Subsequent Induction Agents/Methods:					
Date/Times of Administration	Agent/Method	Dose	Date/Time Patient Sent Home	Inpatient (Indicate reason)	MRP
	□ Foley				
	□ Prostin E2				
	□ Cervidil				
	□ Prepidil				
	□ Rupture of membranes				
	□ Oxytocin				

Nurses Notes:

_____

_____

_____