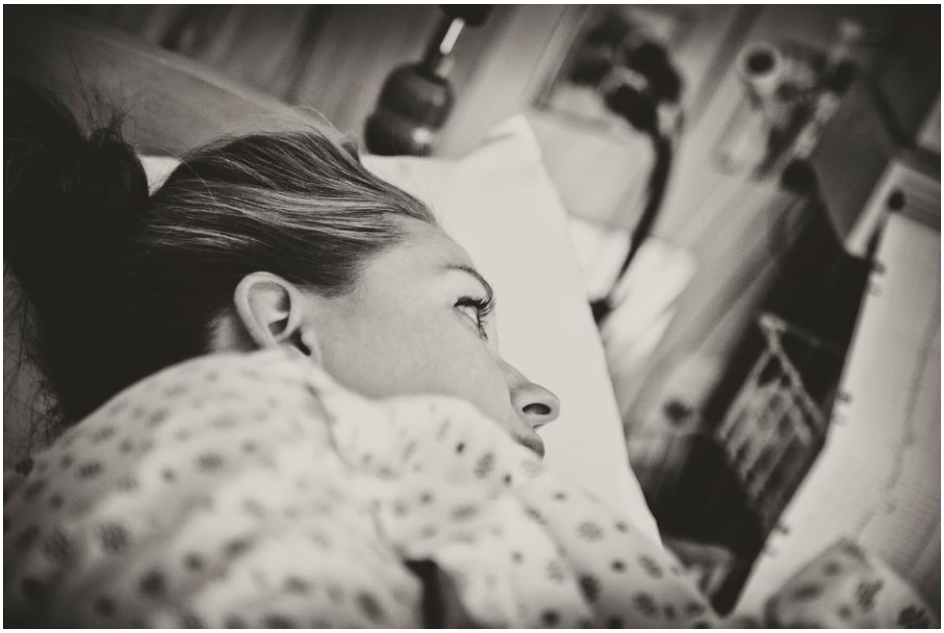
Champlain Maternal Newborn Regional Program
Programme régional des soins à la mère et au nouveau-né de Champlain

Full Induction of Labour Toolkit



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on behalf of the

CMNRP Induction of Labour Workgroup

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PATIENT IDENTIFICATION INFORMATION

Induction of Labour (IOL) Request Form

Preferred Name:	Tel.: Alt Tel.:					
Health Care Provider:	**PREVIOUS C/S: Yes ☐ No ☐ KNOWN INCISION /CLOSURE: Yes ☐ No ☐**					
REQUESTED DATE OF INDUCTION: _____ **RECOMMENDED METHOD OF CERVICAL RIPENING**: ☐ Foley ☐ Cervidil ☐ Gel ☐ Misoprostol **(Inpatient only)** **RECOMMENDED IOL METHOD**: ☐ ARM ☐ Oxytocin	ALLERGIES:					
GBS Status: ☐ NEGATIVE ☐ POSITIVE ☐ UNKNOWN						
GA at induction: _____	EDC: _____	G	T	P	A	L
☐ Cervical ripening and IOL process explained to patient and documented	☐ IOL information given to patient	☐ Consent documented				

PRIORITY	MATERNAL AND FETAL INDICATIONS FOR IOL	
☐ **Priority 1** Immediately or within 24 hours of requested induction date	☐Severe Preeclampsia, HELLP Syndrome or Eclampsia at any gestational age ☐Preeclampsia, greater than or equal to 34 weeks ☐Abnormal fetal surveillance (circle all that apply); Abnormal BPP; Abnormal NST; Abnormal Doppler Flow Studies (indicate findings): decreased / absent / reversed EDF ☐EFW less than the 10th percentile WITH other abnormal FHS parameters, please indicate _____ ☐EFW less than the 5th percentile, otherwise uncomplicated greater than or equal to 37 weeks ☐Monochorionic/Diamniotic twins 36-37 weeks ☐ Significant Maternal medical disease _____OR ☐Fetal complication_____ ☐TERM Pre-labour SROM GBS +/- Date/time of SROM_____☐ Patient declined	☐ Inpatient
☐ **Priority 2** Between 24-48hrs from requested induction date	☐Dichorionic/Diamniotic twins, otherwise uncomplicated, 37-38 weeks ☐EFW 5th to 10th percentile, otherwise uncomplicated greater than or equal to 39 weeks **(*Suggest inpatient*)** ☐Type 1, Type 2 or GDM on insulin, uncomplicated, 38-39 weeks **(*Suggest inpatient*)** ☐Gestational hypertension or pre-existing hypertension, with or without medication(s) greater than or equal to 39 weeks, with well controlled BP and NO adverse conditions ☐Cholestasis: greater than or equal to 39 weeks with clinical diagnosis OR Bile salts less than 40mmol/L; ☐Cholestasis: less than 39 weeks if Bile salts are greater than 40mmol/L **(*Suggest inpatient*)** ☐Fetal demise, genetic or anatomic indications ☐Other: ☐ Maternal_____ ☐Fetal:_____	☐ Inpatient OR ☐ Outpatient
☐ **Priority 3** Within 2-4 days of requested induction date	☐Gestational diabetes (diet managed) greater than or equal to 39 weeks, otherwise uncomplicated ☐AMA (greater than or equal to 40 years), otherwise uncomplicated, greater than or equal to 40 weeks ☐Postdates, greater than or equal to 41 weeks ☐Pre-pregnancy BMI greater than or equal to 40 kg/m², otherwise uncomplicated, greater than or equal to 39-40 weeks BMI=_____ kg/m² ☐VTE or additional thrombotic disorders receiving anticoagulation therapy, greater than or equal to 38 weeks ☐Other: ☐ Maternal_____ ☐Fetal:_____	☐ Inpatient OR ☐ Outpatient
OUTPATIENT CRITERIA ☐ Lives less than 1 hour away ☐Adequate transportation ☐ BPP 8/8 (within 7 days) **OR** ☐ NST + AF Assessment (within 48hrs) ☐ IOL explained ☐ Demonstrates understanding of information provided		

BISHOP SCORE

SCORE	DILATATION (cm)	EFFACEMENT (cm)	STATION	POSITION	CONSISTENCY	FAVORABLE CERVIX
0	Closed	Greater than 3 cm	-3	Posterior	Firm	**Greater than or equal to 6**
1	1-2	2-3cm	-2	Midline	Medium	**A Bishop score greater than 8, increases the likelihood of vaginal birth similar to that of spontaneous labour.** Consider additional cervical ripening to improve Bishop's score prior to additional intervention.
2	3-4	1-2cm	-1, 0	Anterior	Soft	
3	Greater than 5	0 cm	+1, +2	----	----	**TOTAL SCORE**
SCORE						

FOLLOW-UP: ☐NST Date: _____ ☐BPP Date: _____☐Additional follow-up items: _____

ADDITIONAL COMMENTS: _____

_____

_____

Health Care Provider Name (print)	Health Care Provider Signature	Date (yyyy/mm/dd)

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PATIENT IDENTIFICATION INFORMATION

LEGEND:

IOL = Induction of Labour	**Tel**. = Telephone	**Alt. Tel.** = Alternate Telephone
C/S = Cesarean Section	**ARM** = Artificial Rupture of Membrane	**GBS** = Group B Streptococcus
GA = Gestational Age	**EDC** = Estimated Date of Containment	**BPP** = Biophysical Profile
EDF = End Diastolic Flow	**IUGR** = Intrauterine Growth Restriction	**USS** = Ultrasound Scan
GDM = Gestational Diabetes Mellitus	**BP** = Blood Pressure	**AMA** = Advanced Maternal Age
BMI = Body Mass Index	**VTE** = Venous Thromboembolism	**NST** = Non Stress Test
AFI = Amniotic Fluid Index	**G** = Gravida	**T** = Term Birth
P = Preterm Births	**A** = Abortions	**L** = Living Children
HELLP = Hemolysis Elevated Liver Enzymes Low Platelet Count	**FHS** = Fetal Health Surveillance	**SROM** = Spontaneous Rupture of Membrane

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Cervical Ripening Process

*Maternal assessment and FHS **before** and **after** procedure/medication administration according to institutional policy*

If, at any time during cervical ripening, tachysystole or abnormal FHR features occur, consider removing medication or device and determine whether tocolytic therapy is necessary

Patient arrives to unit for **induction of labour**: **Assess Bishop Score**

Favourable cervix (Bishop score greater than or equal to 6)

Consider ARM

Unfavourable cervix (Bishop Score less than 6)

Patient arrives to unit with **term SROM** (not labouring): **Assess Bishop Score**

Favourable cervix (Bishop score greater than or equal to 6) **Start oxytocin**

Unfavourable cervix (Bishop Score less than 6)

Inpatient/Outpatient Options

Inpatient Only

MECHANICAL

PHARMACOLOGICAL

Foley/Balloon Catheter

Vaginal or Cervical Prostaglandin (PGE_2)

Dinoprostone Insert

Vaginal Gel every 6h

Misoprostol (PGE_1)

Oral every 4h

Maternal and fetal re-assessment at **12-24hrs** hours post-insertion

Maternal and fetal re-assessment **every 6hrs** pre/post- insertion

Maternal and fetal re-assessment **every 4hrs** pre/post-administration

Reconsider method of cervical ripening after 12-24hrs

Reconsider method of cervical ripening after 2 doses (48 hours)

Reconsider method of cervical ripening after 2 doses

Reconsider method of cervical ripening after 4 doses

Reassess Bishop Score

Unfavourable cervix (Bishop Score less than 6)

Favourable cervix (Bishop Score greater than or equal 6)

Consider additional ripening techniques. ***A combination of cervical ripening methods may need to be used***

30 minutes after removal of last dose +/- ARM

6 hours after last dose +/- ARM

4 hours after last dose +/- ARM

Start Oxytocin Infusion

*** CAUTION for all pharmacological methods***
Confirm medication preparation, dose and route prior to administration

Adapted from Safer Care Victoria

Induction of Labour Audit Tool

This template is to assist with auditing induction of labour (IOL) indications, outcomes and/or standards of care within your centre. Standards of care refer to those established through regional work on IOL and the Low Risk Birth Initiative set forth by the Provincial Council for Maternal and Child Health (PCMCH). The audit measures can be used in their entirety or can be used separately to target one area of practice. Organizations can use this audit template by printing and completing a form for each chart audited, or by using the parameters to set up their own audit tool. This tool has been adapted from Safer Care Victoria to fit the context of obstetrical care in Ontario.

Key for Audit Measures

Antenatal Care and Decision Making	Indications for IOL	IOL Methods	Outcomes

Audit Tool

Antenatal Care and Informed Decision Making			
Where did the patient receive their antenatal care?		**Did the patient receive information about the risks and benefits of an induction of labour?**	
Hospital		Yes	
Community		No	
If the EDC is documented, how was it calculated?		**If information was provided on the risks, benefits and available methods, when did the patient receive information to assist in making an informed decision?**	
T1 Ultrasound			
Last menstrual period			
Ultrasound in T2 or later		Less than or equal to 38 weeks gestation	
Not specified		Greater than 38 weeks gestation	
Is the agreed upon Estimated Date of Containment (EDC) documented?		**If the patient had a previous C/S, was specific information about the risks of IOL after a previous C/S given?**	
Yes		Yes	
No		No	

Additional Notes:

Indications for IOL			
Was the Indication for induction documented?		**Were there any contraindications?**	
Yes		Yes	
No		No	
Indication(s) documented (tick all that apply)			
Severe Preeclampsia, HELLP Syndrome or Eclampsia at any gestational age		Dichorionic/Diamniotic twins, otherwise uncomplicated, 37-38 weeks	
Preeclampsia, greater than or equal to 34 weeks		EFW 5th to 10th percentile, otherwise uncomplicated greater than or equal to 39 weeks	
Abnormal fetal surveillance		Type 1, Type 2 or GDM on insulin, uncomplicated, 38-39 weeks	
EFW less than the 10th percentile WITH other abnormal FHS parameters		Gestational hypertension or pre-existing hypertension, with or without medication(s) greater than or equal to 39 weeks, with well controlled BP and NO adverse conditions	
EFW less then the 5th percentile, otherwise uncomplicated greater than or equal to 37 weeks		Cholestasis: greater than or equal to 39 weeks with clinical diagnosis OR Bile salts less than 40mmol/L;	
Monochorionic/Diamniotic twins 36-37 weeks		Cholestasis: less than 39 weeks if Bile salts are greater than 40mmol/L (Suggest inpatient)	
Significant maternal medical disease OR fetal complication		Fetal demise, genetic or anatomic indications	
TERM Pre-labour SROM GBS +/-		Postdates, greater than or equal to 41 weeks	
Gestational diabetes (diet managed) greater than or equal to 39 weeks, otherwise uncomplicated		Pre-pregnancy BMI greater than or equal to 40 kg/m2, otherwise uncomplicated, greater than or equal to 39-40 weeks	
AMA (greater than or equal to 40 years), otherwise uncomplicated, greater than or equal to 40 weeks		VTE or additional thrombotic disorders receiving anticoagulation therapy, greater than or equal to 38 weeks	

Additional Notes:

Induction of Labour Methods			
Was a maternal assessment completed and documented?		**Was fetal well-being monitored appropriately and documented prior to commencing the IOL (cervical ripening, ARM or oxytocin administration)?**	
Yes		Yes	
No		No	
Which IOL methods were used? (indicate multiple methods used in the order they occurred e.g. 1, 2, 3 etc.)			
Balloon Catheter		ARM	
Gel		Oxytocin	
Cervidil		Other:	
Misoprostol			
If cervical ripening was performed, was the patient a candidate for Outpatient IOL?		**If the patient was a candidate for outpatient IOL, but remained in hospital, was the rational documented?**	
Yes		Yes	
No		No	

Additional Notes:

Pharmacologic Methods of Cervical Ripening (Cervidil, Gels, Misoprostol)			
Was more than 1 dose of prostaglandin given?		**If the patient received more than 1 dose was the dosing interval appropriate? (Cervidil greater than 12hrs; Gels greater than 6hrs, Misoprostol greater than 4hrs)**	
Yes		Yes	
No		No	
After administration of medications for cervical ripening, was an EFM tracing or NST done until normal classification was obtained?		**If the patient was a candidate for outpatient IOL, did the patient go home?**	
Yes		Yes	
No		No	
Was there at least 6 hours between the last dose of gel; 30 minutes from the removal of Cervidil or 4 hours from the last dose of misoprostol prior to starting oxytocin?		**Was continuous EFM initiated if regular painful uterine contractions were documented as being established?**	
Yes		Yes	
No		No	

Balloon Catheters			
What type of balloon catheter was used?			
Single (e.g. Foley)			
Double (e.g. Cook)			
When was the balloon removed?			
Less than 12hrs		Greater than 25hrs	
12-24hrs		Balloon fell out	
Were volumes instilled into the balloons documented?			
Yes		No	
Was the balloon taped to the patient's leg with tension on it?			
Yes		No	

Additional Notes:

Oxytocin			
Was there continuous EFM 30 minutes prior to staring the oxytocin?			
Yes			
No			
Was there continuous EFM while oxytocin was infusing?			
Yes			
No			
If 'No' was there an order indicating that the EFM could be stopped for up to 30 minutes provided the maternal fetal condition was stable and the oxytocin rate was stable?			
Yes			
No			
When was the oxytocin started?			
Immediately after presenting with SROM		6 hours after last prostin dose administered	
Immediately after AROM		30 minutes after Cervidil removal	
After expectant management of S/AROM		4 hours after last dose of Misoprostol	
Less than 12hrs following ROM		Immediately after removing balloon	
12-24hrs following ROM		While balloon catheter still in-situ	
Greater than24hrs following ROM		At a set time or other	
Was the oxytocin started ☐ with or ☐ without regular contractions.			

Additional Notes:

Outcomes			
Were there any complications documented?		**Type of Birth**	
Yes		Spontaneous Vaginal	
No		Vacuum Assisted Vaginal	
Complications documented include:		Forcep Assisted Vaginal	
Tachysystole without FHR changes		Cesarean Section (C/S)	
Tachysystole with FHR changes		**If a C/S birth: what was the documented primary and secondary indication for C/S?**	
Antepartum bleeding		Abnormal FHR	
Atypical or abnormal FHR monitoring leading to C/S		Failed IOL. Indicate cm of dilation at time of diagnosis:	
Was a scalp pH or lactate done prior to C/S?		Failure to Progress. Indicate cm of dilation at time of diagnosis:	
Yes			
No			
Was meconium present?		Failed operative vaginal birth	
Yes			
No		Other indications:	
Was there a postpartum hemorrhage?		**Was the estimated blood loss documented?**	
Yes		Yes	
No		No	
Were other intrapartum or postpartum complications sufficiently documented? : ☐ **YES** ☐ **NO**			

Additional Notes:

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STARTING YOUR INDUCTION
Cervical Ripening

What is an induction of labour?

An induction of labour is when your labour is started before it begins on its own. It involves different steps. The goal is to increase your chance of having a vaginal birth. In most cases, cervical ripening will be the first step.

Why do I need an induction of labour?

The most common reason is that your pregnancy is 1-2 weeks past your due date. This is a post-dates induction. Other reasons may include:

- Your baby is not growing as expected or baby movements have slowed down
- Your water has broken before labour has started
- You have an infection
- You have a medical condition like high blood pressure, diabetes, kidney disease or heart problems.
- There is a problem with your placenta

(Best Start & PCMCH, 2019)

What is cervical ripening and why may I need it?

Cervical ripening helps your cervix (lowest part of your uterus) get ready for labour, which increases your chance of having a vaginal birth.

Helping you make an informed decision about cervical ripening.

Your health care provider will discuss the options you have. They may be different depending on your health, the health of your baby, the location of your placenta or the place you are planning to give birth.

What are my options and how does cervical ripening work?

Mechanical

Foley or balloon catheters are a common way to ripen a cervix. Your health care provider will insert a catheter through your cervix and fill the balloon with water. This works well when your cervix is open enough to fit the catheter through. The weight of the balloon helps your cervix open (just like your baby's head will later in labour). It can be uncomfortable to have the catheter inserted. You may have some cramping or contractions. Following insertion, you will experience very little discomfort. The catheter can be left in place for 24 hours. When your cervix is ripe, the balloon will fall out.

Medications

Prostaglandins help your cervix get ready for labour. They can be given by mouth, put in your vagina or in your cervix. They work by causing contractions. Before they are given to you, your health care team will monitor you and your baby and will explain the procedure.

Oral Misoprostol is a pill that you take every 4 hours. **You will need to stay at the hospital if this method is chosen**. You may be given this medication up to 4 times

Cervidil is a prostaglandin medication that comes on a string like a tampon. The string is tucked up into your vagina. If you are having too many contractions your health care provider may instruct you to pull it out. The Cervidil can stay in for up to 24 hours. You may need more than one dose.

If you have had a previous caesarean section, prostaglandins are not a safe choice for you

Some people need more than one method of cervical ripening. A combination of these methods can be used. In some cases it can take 3-4 days.

The option to stay in the hospital or go home will depend on many factors. Some of them include: how you and your baby are coping with the cervical ripening, how many babies you have had before, how far away you live from the hospital and what type of method is being used.

You don't always stay in the hospital until you give birth

Going home may be the most comfortable option. In case you need to stay at the hospital, make sure to bring all the things you need for you and your support person such as: comfortable clothes, books, movies, tablet, etc.

My cervical ripening may not occur at the time it is booked because:

- Other patients have more urgent medical needs
- The labour and birth unit is very busy
- All beds are occupied
- Many people may be booked for induction of labour on the same day; priority will be decided by the health care team

What if the cervical ripening does not work?

If you and your baby are both healthy, you may be able to go home and come back in a day or two and try again. Not all inductions of labour will result in a vaginal birth; a caesarean birth may be needed. Your health care provider will discuss your options with you.

Websites for more information:

- **The MotHERS Program themothersprogram.ca**
- **Best Start en.beststart.org**
- **Omama omama.com**
- **SOGC Pregnancy Info pregnancyinfo.ca**
- **Association of Ontario Midwives (AOM) ontariomdiwives.ca**

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DÉCLENCHEMENT DU TRAVAIL
Maturation cervicale

Qu'est-ce que le déclenchement du travail?

On parle de déclenchement du travail (induction) lorsqu'il est nécessaire de provoquer le travail avant qu'il débute naturellement. Ceci implique différentes étapes visant à augmenter les chances d'un accouchement vaginal. Dans la plupart des cas, la maturation cervicale est la première étape.

Pourquoi ai-je besoin d'un déclenchement?

La raison la plus commune est que vous avez dépassé votre date prévue d'accouchement par 1-2 semaine (grossesse prolongée). Autres raisons peuvent inclurent :

- Votre bébé ne se développe pas bien, ou ses mouvements ont ralenti
- Vous avez perdu vos eaux avant que le travail commence
- Vous avez développé une infection
- Vous souffrez d'un problème médical, comme l'hypertension, le diabète, une maladie rénale ou un problème cardiaque
- Il y a un problème avec votre placenta

(Meilleur départ et PCMCH, 2019)

Qu'est-ce que la maturation cervicale et pourquoi puis-je en avoir besoin ?

La maturation cervicale aide le col (la partie inférieure de l'utérus) à se préparer au travail, ce qui augmente vos chances d'avoir un accouchement vaginal.

Pour vous aider à prendre une décision éclairée à propos de la maturation cervicale

Votre fournisseur de soins discutera des options qui vous sont offertes. Elles peuvent être différentes selon votre état de santé, celui de votre bébé, l'emplacement de votre placenta ou l'endroit où vous prévoyez accoucher.

Quelles sont mes options et comment fonctionne la maturation cervicale?

Mécanique

La sonde de Foley est un moyen courant de faire murir le col de l'utérus. Votre fournisseur de soins insère la sonde dans le col de l'utérus et remplit le ballonnet d'eau. Ceci fonctionne bien lorsque le col est suffisamment ouvert pour permettre le passage de la sonde. Le poids du ballonnet aide le col à s'ouvrir (tout comme la tête de votre bébé le fera plus tard pendant le travail). La pose de la sonde Foley peut être inconfortable. Vous pouvez avoir des crampes ou contractions. Après l'insertion, vous ne ressentirez que très peu d'inconfort. La sonde de Foley peut demeurer en place pendant 24 heures. Une fois le col dilaté, la sonde tombera d'elle-même.

Médicaments

Les prostaglandines aident le col de l'utérus à se préparer au travail. Ils peuvent être donnés par la bouche, insérer dans le vagin ou le col de l'utérus. Ils agissent en provoquant des contractions. Avant de les recevoir, votre équipe soignante surveillera votre état et celui de votre bébé et vous expliquera la procédure.

Misoprostol par voie orale : Il s'agit d'une pilule que vous devez prendre toutes les quatre heures. **Vous devrez rester à l'hôpital si cette méthode est choisie.** On pourrait vous donner ce médicament jusqu'à quatre fois.

Cervidil : Médicament à base de prostaglandine qui ressemble à un tampon avec une corde. La corde est insérée dans le vagin. S'il y a trop de contractions, votre fournisseur de soins pourrait vous demander de le retirer. Le Cervidil peut demeurer en place jusqu'à 24 heures. Une deuxième dose peut être nécessaire.

Si vous avez déjà eu une césarienne, les prostaglandines ne sont pas recommandées dans votre cas.

Certaines personnes ont besoin plus qu'une méthode de maturation cervicale. Une combinaison de ces méthodes peut être utilisée. Dans certains cas, ceci peut prendre de trois à quatre jours.

La décision de rester à l'hôpital ou de retourner à la maison dépend de plusieurs facteurs : comment vous et votre bébé avez réagi à la maturation cervicale, le nombre d'accouchements que vous avez eu, la distance entre votre maison et l'hôpital, et la méthode utilisée.

Vous ne restez pas toujours à l'hôpital jusqu'à l'accouchement.

Retourner à la maison peut être l'option la plus confortable. Si vous devez rester à l'hôpital, assurez-vous d'apporter tout ce dont vous aurez besoin pour vous et votre personne de soutien : vêtements confortables, livres, films, tablette électronique, etc.

Il est possible que votre rendez-vous pour commencer la maturation cervicale soit retardé, car:

- Nous devons prioriser des patientes avec un besoin médical plus urgent
- L'unité de naissance est très occupée
- Tous les lits sont occupés
- Plusieurs patientes peuvent être prévues pour un déclenchement du travail la même journée, la priorité sera décidée par l'équipe de soins.

Que se passe-t-il si la maturation cervicale ne fonctionne pas ?

Si vous et votre bébé êtes en bonne santé, vous pourriez retourner à la maison et revenir à l'hôpital dans 1 à 2 jours pour réessayer. Ce n'est pas tous les déclenchements qui mènent à un accouchement vaginal ; une césarienne pourrait être nécessaire. Votre fournisseur de soins discutera de vos options.

Sites web pour plus d'informations:

- **Omama omama.com/fr/index.asp**
- **Info grossesse SOGC pregnancyinfo.ca/fr/**
- **Association of Ontario Midwives (AOM) : dépliants disponibles en français mais site web en anglais seulement ontariomidwives.ca**
- **The MotHERS Program (en anglais seulement) themothersprogram.ca**

Outpatient Cervical Ripening

Patient Information Sheet

INSERT UNIT NAME AND TELEPHONE NUMBER HERE

Your health care provider has booked you for an outpatient cervical ripening before your induction. They will have talked with you about the risks and benefits for you and your baby.

DATE/TIME to expect call: _____ at _____
(YYYY/MM/DD) (HHMM)

If you have not received a call 4-6 hours from the expected time, you need to call the hospital.

You will get a phone call from the hospital telling you when to come in for your cervical ripening.

When you get to the hospital go straight to the nursing station [INSERT UNIT NAME]. There is a chance that when you arrive you will be asked to wait. If this happens, it is because the unit is very busy. In rare cases, you may be asked to return later in the day, evening or possibly the next day. Upon your arrival, a nurse will greet you and bring you to a room where the first assessment of you and your baby will begin.

The nurse will ask you questions while checking your vital signs. They will apply the fetal monitor to your belly to make sure that your baby is doing well before they start the cervical ripening process.

What to Expect:
If you are receiving a **Foley/balloon catheter** for mechanical cervical ripening, it is normal to have some discomfort throughout the procedure followed by menstrual-like cramps.

If you are receiving medication **vaginally**, it is normal to have some back pain and menstrual like cramping. In rare cases, contractions may start quickly and may happen too often. If this happens, some types of medications can be taken out. If the medication cannot be taken out, other medications may be given to help slow or stop the contractions you are having.

Whether you have a Foley or medications, you may have some spotting or pink discharge. If you and baby are coping well, you may be able to go home with a plan to return later.

After 12-24 hours, your health care provider will recheck your cervix to decide whether it is ready for labour.

If your cervix is ready for labour, a plan for induction will be made with you. This may include immediate admission or you may be asked to return home for a short period depending on the situation.

If your cervix is not ready for labour, your health care provider may insert a Foley/balloon or give you extra medications. This may be frustrating at the time, but is completely normal. Additional ripening of your cervix will increase your chance of having a successful vaginal birth. In some cases, cervical ripening can take 3-4 days.

During this time, you may have a shower or bath, eat normally, sleep and resume your usual activities.

Outpatient Cervical Ripening Patient Information

You will need to call the triage nurse (PHONE NUMBER) 6 hours ( ) and 12 hours ( ) after you have gone home. This telephone call is very important. The nursing staff will ask you questions and answer any questions you may have. If you are tired and want to go to sleep before the time you are supposed to call for assessment, please call the triage nurse to let them know.

If your Foley/balloon falls out:
Throw it in the garbage and call the hospital to let them know. If it does not fall out, return to the hospital at the planned time for reassessment.

Call the nurse if:

- Your contractions are every 5 minutes or closer
- You have severe abdominal pain
- Your water breaks
- You are having bright red bleeding that is more than "pink mucousy discharge"
- You think your Cervidil or Foley/balloon has fallen out
- You have any concerns or are unsure of what to do
- You are planning to sleep or will be out of the house when the follow-up phone calls are due.

If you have a Cervidil for cervical ripening and you have contractions that are too close together, the triage nurse may ask you to pull it out. It has a string like a tampon and can easily be pulled out by putting your fingers into your vagina to grab the string and then pulling it out like a tampon.

Cautions:

- **Do not use any form of aspirin, ibuprofen or pain relief cream.**
- **When toweling off or after going to the bathroom, carefully pat (not wipe) your vagina so you don't accidentally remove the Cervidil or Foley/balloon. Make sure you do not tug on the Foley/balloon; tugging may cause additional cramping. If it falls out, DO NOT attempt to put it back in, call the hospital. You may be asked to return to the hospital.**

My questions for the labour and birth staff:

Your cervical ripening has been booked for _____ (date). If you have not heard from the hospital when expected, please call [INSERT NUMBER] to determine when would be the best time for you to arrive to the unit.

Maturation cervicale pour patiente en externe

Fiche d'information pour la patiente

INSÉRER LE NOM ET LE NUMÉRO DE TÉLÉPHONE DE L'UNITÉ

Votre fournisseur de soins vous a donné rendez-vous pour une maturation cervicale avant le déclenchement du travail. Celui-ci vous aura déjà expliqué les risques et les avantages pour vous et votre bébé.

DATE et HEURE prévues pour l'appel : _____ **à** _____
(AAAA/MM/JJ) **(HHMM)**

Si vous n'avez pas reçu d'appel dans les 4 à 6 heures après l'heure prévue, vous devez appeler à l'hôpital.

Vous recevrez un appel de l'hôpital pour vous dire quand vous devez vous présenter pour votre maturation cervicale.

Lorsque vous arrivez à l'hôpital, allez directement au poste infirmier [NOM DE L'UNITÉ]. Il est possible qu'on vous demande d'attendre. Si c'est le cas, c'est que l'unité est très occupée. Rarement, on pourrait même vous demander de revenir plus tard dans la journée, en soirée, ou le lendemain. À votre arrivée, une infirmière vous accueillera et vous conduira dans une salle où auront lieu votre première évaluation et celle de votre bébé.

L'infirmière vous posera des questions pendant qu'elle vérifie vos signes vitaux. Elle installera le moniteur fœtal sur votre abdomen pour s'assurer que le bébé va bien avant de commencer le processus de maturation cervicale.

À quoi s'attendre :
Si une **sonde de Foley** est utilisée pour la maturation cervicale, il est normal que vous ressentiez un inconfort durant la procédure, suivi de crampes menstruelles.

Si vous recevez un **médicament par voie vaginale**, vous pourriez ressentir de la douleur au dos et des crampes menstruelles. Rarement, les contractions commencent rapidement et sont trop fréquentes. Dans ce cas, certains types de médicaments peuvent être retirés. S`il est impossible de le retirer, d'autres médicaments peuvent vous être donnés pour ralentir ou arrêter les contractions.

Que vous ayez une sonde de Foley ou des médicaments, vous pouvez avoir des taches ou des pertes rosées. Si vous et votre bébé êtes en bonne santé, vous pourriez retourner à la maison avec un plan de revenir plus tard.

Après 12 à 24 heures, votre fournisseur de soins réexaminera votre col et décidera s'il est prêt pour le travail.

Si votre col est prêt pour le travail, un plan de déclenchement du travail sera établi avec vous. Ce plan pourrait inclure de rester à l'hôpital ou de retourner à la maison pour une courte période, tout dépendant de la situation.

Si votre col n'est pas prêt pour le travail, votre fournisseur de soins pourrait insérer une sonde de Foley, ou vous donner une autre dose de médicament. Cela peut être frustrant à ce moment-là, mais c'est tout

à fait normal. Une maturation cervicale supplémentaire augmente les chances d'avoir un accouchement vaginal. Dans certains cas, la maturation cervicale peut prendre de trois à quatre jours.

Durant ce temps, vous pouvez prendre une douche ou un bain, manger normalement, dormir et reprendre vos activités habituelles.

Vous devrez appeler l'infirmière du triage (Nº DE TÉLÉPHONE) 6 heures ( ) et 12 heures ( ) après votre retour à la maison. Cet appel est très important. L'infirmière vous posera des questions et répondra aux vôtres. Si vous êtes fatiguée et que vous voulez dormir durant la période que vous devez appeler l'infirmière, veuillez appeler à l'avance pour l'informer.

Si votre sonde de Foley tombe:
Jetez-la à la poubelle et appelez l'hôpital pour les informer. Si elle reste en place, retourner à l'hôpital à l'heure prévue pour votre évaluation.

Appelez l'infirmière si :

- Vos contractions sont toutes les 5 minutes ou plus rapprochées
- Vous avez une douleur intense à l'abdomen
- Vos perdez vos eaux
- Vous avez des saignements rouge vif (non seulement des pertes vaginales rosées)
- Vous pensez que votre Cervidil ou sonde de Foley est tombé(e)
- Vous avez des inquiétudes ou vous ne savez pas quoi faire
- Vous prévoyez dormir ou sortir de la maison à l'heure prévue pour l'appel de suivi

Si vous avez reçu un Cervidil pour la maturation cervicale et que vos contractions sont trop rapprochées, l'infirmière du triage pourrait vous demander de le retirer. Celui-ci est muni d'une corde semblable à celle d'un tampon qui permet de le retirer facilement. Insérez les doigts dans le vagin pour sentir la corde, puis tirez sur celle-ci comme vous le feriez avec un tampon.

Mises en garde :

- **Ne pas prendre aucune forme d'aspirine, d'ibuprofène ou de crème antidouleur.**
- **Après être allée à la toilette, tapoter délicatement (ne pas essuyer) votre vagin pour ne pas retirer accidentellement le Cervidil ou la sonde de Foley. Évitez de tirer sur la sonde, ce qui pourrait causer plus des crampes. Si elle tombe, n'essayez PAS de la remettre en place et appeler l'hôpital. On pourrait vous demander de vous y rendre.**

Mes questions pour le personnel de l'unité de naissance :

Votre rendez-vous pour la maturation cervicale aura lieu le _____ (date). Si vous n'avez pas reçu l'appel de l'hôpital à la date et l'heure prévue, veuillez appeler au [INSÉRER LE NUMÉRO] pour déterminer le meilleur moment pour votre rendre à l'hôpital.

Outpatient Cervical Ripening: Telephone Call-back Form

PATIENT IDENTIFICATION INFORMATION

Foley

ASSESSMENT	(Y/N)	Comment
Have you had regular contractions for more than 1 hour?		
Have you had more than 5 contractions within 10 minutes?		
Have you had any contractions that have lasted 90 sec. or longer?		
If you are contracting, how painful are your contractions on a scale of 0-10 (VAS: 0-10)?		
Can you talk through your contractions? Do you need to breathe through them?		
Have you had any vaginal bleeding?		
Is your baby moving as much as usual?		
Is the Foley still in place?		
Do you have any other concerns or questions about what to do?		
ACTION TAKEN	(Y/N)	
Told to return to hospital		
Clarification, reassurance provided and reviewed comfort measures		
Informed of time to call back for next telephone/triage assessment		
Follow-up plan of care / Comments:		

PRINTED NAME	DESIGNATION	SIGNATURE	DATE (YYYY/MM/DD)	TIME (HHMM)

ASSESSMENT	(Y/N)	Comment
Have you had regular contractions for more than 1 hour?		
Have you had more than 5 contractions within 10 minutes?		
Have you had any contractions that have lasted 90 sec. or longer?		
If you are contracting, how painful are your contractions on a scale of 0-10 (VAS: 0-10)?		
Can you talk through your contractions? Do you need to breathe through them?		
Have you had any vaginal bleeding?		
Is your baby moving as much as usual?		
Is the Foley still in place?		
Do you have any other concerns or questions about what to do?		
ACTION TAKEN	(Y/N)	
Told to return to hospital		
Clarification, reassurance provided and reviewed comfort measures		
Informed of time to call back for next telephone/triage assessment		
Follow-up plan of care / Comments:		

PRINTED NAME	DESIGNATION	SIGNATURE	DATE (YYYY/MM/DD)	TIME (HHMM)

Outpatient Cervical Ripening: Telephone Call-back Form

PGE2 (Cervidil® and Prostin)

PATIENT IDENTIFICATION INFORMATION

ASSESSMENT	(Y/N)	Comment
Have you had regular contractions for more than 1 hour?		
Have you had more than 5 contractions within 10 minutes?		
Have you had any contractions that have lasted 90 sec. or longer?		
If you are contracting, how painful are your contractions on a scale of 0-10 (VAS: 0-10)?		
Can you talk through your contractions? Do you need to breathe through them?		
Have you had any vaginal bleeding?		
Is your baby moving as much as usual?		
If Cervidil® was used only: Is the Cervidil® insert still in place?		
Do you have any other concerns or questions about what to do?		
ACTION TAKEN	(Y/N)	
Told to return to hospital		
Told to pull Cervidil® insert out and come to hospital		
Clarification, reassurance provided and reviewed comfort measures		
Informed of time to call back for next telephone/triage assessment		
Follow-up plan of care / Comments:		

PRINTED NAME	DESIGNATION	SIGNATURE	DATE (YYYY/MM/DD)	TIME (HHMM)

ASSESSMENT	(Y/N)	Comment
Have you had regular contractions for more than 1 hour?		
Have you had more than 5 contractions within 10 minutes?		
Have you had any contractions that have lasted 90 sec. or longer?		
If you are contracting, how painful are your contractions on a scale of 0-10 (VAS: 0-10)?		
Can you talk through your contractions? Do you need to breathe through them?		
Have you had any vaginal bleeding?		
Is your baby moving as much as usual?		
If Cervidil® was used only*:* Is the Cervidil® insert still in place?		
Do you have any other concerns or questions about what to do?		
ACTION TAKEN	(Y/N)	
Told to return to hospital		
Told to pull Cervidil® insert out and come to hospital		
Clarification, reassurance provided and reviewed comfort measures		
Informed of time to call back for next telephone/triage assessment		
Follow-up plan of care / Comments:		

PRINTED NAME	DESIGNATION	SIGNATURE	DATE (YYYY/MM/DD)	TIME (HHMM)

Inpatient Cervical Ripening and Induction of Labour with Misoprostol

DISCLAIMER:

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Inpatient Cervical Ripening and Induction of Labour (IOL) with Misoprostol

GOALS/OBJECTIVES

The goal of cervical ripening is to soften and dilate the cervix to increase the chances of successful labour and vaginal birth. Cervical ripening is often needed prior to commencing induction of labour with Oxytocin.

The goal of induction of labour (IOL) is to stimulate the uterine muscles to contract in order to effect labour and achieve a successful vaginal birth.

This policy refers to the use of Misoprostol for live gestation greater than or equal to 35 weeks only.

CONSIDERATIONS

IOL should be undertaken when continuing the pregnancy is believed to be associated with greater maternal or fetal risk than IOL.

IOL should only be conducted when there are no contraindications to vaginal birth.

Misoprostol (a synthetic prostaglandin E_1 analogue) is a pharmacologic option for **inpatient** cervical ripening with intact **AND** ruptured amniotic membranes.

DEFINITIONS

Cervical ripening: The use of pharmacologic or mechanical means to soften, efface, or dilate the cervix prior to IOL to increase the likelihood of a vaginal birth (ALARM, 2019).

Induction of labour (IOL): The initiation of contractions in a pregnant person who is not in labour to help achieve a vaginal birth within 24 to 48 hours (ALARM, 2019).

Augmentation of labour: The stimulation of ineffective uterine contractions in the active phase of labour to enhance uterine activity in an effort to effect vaginal birth.

Prostaglandins: Hormones that cause relaxation of cervical smooth muscle and increase intracellular calcium levels, causing contraction of myometrial muscle.

Misoprostol: a synthetic prostaglandin E1 analogue (PGE_1) that is supplied in 100 or 200 mcg oral tablets which are then prepared by pharmacy to be delivered as 50 mcg doses **for the purpose of IOL for near-term (greater than or equal to 35 weeks) and term gestations**. Misoprostol causes both cervical ripening and uterine contractions in a dose-dependent fashion (ALARM, 2019).

POPULATION / INDICATIONS

Misoprostol should only be used in an **INPATIENT** setting. The indication for IOL must be convincing, compelling, consented to and documented. The reason for and method of induction should be discussed between the health care provider (HCP) and the patient in order to ensure an informed decision has been made (ALARM, 2019).

INDICATIONS TO USE MISOPROSTOL FOR IOL OF LIVE GESTATION GREATER THAN OR EQUAL TO 35 WEEKS

- Unfavourable cervix with indications for IOL
- Term Prelabour Rupture of Membranes (PROM)
- Preterm Prelabour Rupture of Membranes (PPROM) greater than or equal to 35 weeks
- Consider as first-line method for cervical ripening and induction for pre-pregnancy BMI greater than 40kg/m^2
- Following unsuccessful cervical ripening with the use of other mechanical or pharmacological cervical ripening methods

EXCLUSION CRITERIA

- Any contraindications to labour or vaginal birth, including but not limited to:
    - Placenta previa, vasa previa or cord presentation
    - Abnormal fetal lie or presentation (e.g. transverse lie or footling breech)
    - Prior classical or inverted T uterine incision
    - Significant prior uterine surgery (e.g. full thickness myomectomy)
    - Active genital herpes
    - Pelvic structural deformities
    - Invasive cervical carcinoma
    - Previous uterine rupture
- Less than 35 weeks gestation
- Previous Cesarean section (C/S)
- Abnormal Fetal Health Surveillance (FHS)
- Twins
- Fever
- Chorioamnionitis
- Known hypersensitivity to any prostaglandin
- Grand multiparity (greater than or equal to 5 prior vaginal births)
- Signs of placental insufficiency (e.g. fetal growth restriction or oligohydramnios)
- Active labour/regular or painful uterine contractions

SIDE EFFECTS

- Abnormal FHS (including tachysystole with and without associated Fetal Heart Rate (FHR) changes)
- Nausea
- Vomiting
- Diarrhea
- Abdominal pain
- Shivering
- Chills
- Fever

ALERT

- HCP must wear nitrile gloves while handling Misoprostol
- IV access should be established prior to administration of medication
- Prior to administering Misoprostol, wait:
    - 6 hours after administering Prostin gel
    - 30 minutes after removal of Cervidil
    - 4 hours after discontinuing an Oxytocin infusion

EQUIPMENT

- Misoprostol medication 50 mcg – PRE PACKAGED to be administered PO
- Nitrile gloves
- Cup of water

PRE-ADMINISTRATION PROCEDURE

1) Perform positive patient identification and confirm candidacy for procedure.

2) Discuss use of Misoprostol for induction or augmentation with the patient. Answer questions as applicable.

3) Ensure informed consent was obtained and Bishops score is documented.

4) Ensure patient has voided prior to medication administration (if needed).

5) Assist patient to a comfortable position. Position the patient with a wedge if supine.

6) Assess and document baseline maternal vital signs.

7) Perform a Non-Stress Test (NST)/Electronic Fetal Monitoring (EFM) as per institutional policy.

   a) **If FHS findings are atypical or abnormal**, defer to intuitional policy on FHS and manage accordingly. **Do not proceed with administration of Misoprostol** without notifying the most responsible provider (MRP) to assess the patient.

ADMINISTRATION PROCEDURE

1) Perform independent double verification of medication.

2) Administer Misoprostol 50 mcg PO.

   a) Instruct to swallow quickly to avoid sublingual absorption which may increase the risk of tachysytole.

POST-ADMINISTRATION PROCEDURE

1) Monitor FHR and uterine activity for a minimum of 60 minutes.

   a) If the FHS is normal and there is no uterine activity:

      i) Conduct FHS via auscultation q1h while not in labour.

      ii) Instruct patient to return for assessment if there is a change in uterine activity, vaginal bleeding, rupture of membranes or meconium staining.

   b) If the FHS is atypical or abnormal continue to monitor via EFM, notify MRP and start intrauterine resuscitation as appropriate.

   c) If the FHS is normal and uterine activity is present:

      i) Determine the frequency, duration and strength of contractions via palpation.

      - If the patient is not in active labour, the patient may ambulate prior to next dose. Instruct patient to return for assessment if there is a change in uterine activity, vaginal bleeding, rupture of membranes or meconium staining.

      - If the patient is in active labour, transfer to labour and birth unit.

      - If **tachysystole** present, initiate or continue EFM (for a minimum of 60 minutes), notify MRP and initiate treatment protocol as per institutional policy **(see Appendix A)**.

NOTE: If a break in the induction process is warranted and contractions are absent or mild 4 hours after the preceding dose and the FHR is normal, the patient may return home to rest as needed and continue induction at a later time.

ONGOING MANAGEMENT:

1) Assess maternal vital signs at least q4h (or as per institutional policy) and prior to each administration of Misoprostol.

2) Monitor for side effects.

3) Assess the level of maternal comfort frequently throughout the induction process. Provide relaxation techniques, emotional support, comfort measures, teaching and pharmacologic pain relief as requested and ordered/indicated.

4) Consider vaginal exam:

   a) after 2 hours of regular, painful uterine contractions;

   b) when patient requesting analgesia or pain relief measures;

   c) with rupture of membranes.

5) If contractions are occurring regularly or palpate as moderate to strong at the time of next dose, inform MRP and consider holding or discontinuing dose.

6) Notify MRP to reassess patient if labour has not begun after 4 doses of Misoprostol. MRP may consider alternative induction agents as indicated.

ADDITIONAL DRUG INFORMATION

Additional drug information: Misoprostol 50 mcg PO for IOL
Onset of action: 8 minutes
Peak: 30 minutes
Duration: 4 hours
Maximum doses: 4

DOCUMENTATION

Document according to your institutional policies and procedures.

REFERENCES AND FURTHER READING

Dore, S., Ehman, W., Azzam, S., Basso, M., Bow, M., Morin, F., Mundle, W., Rivard, L., Sawchuck, D., Wilson, K., Young, D. (2020, March). No. 396 Fetal health surveillance: Intrapartum consensus guideline. *Journal of Obstetrics and Gynecology*, *42*, p.316-348.

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APPENDIX A: Treatment of Tachysystole

DEFINTION: Tachysystole

- greater than 5 contractions in 10 minutes, averaged over 30 minutes, and/or
- Inadequate resting tone (less than 30 seconds) **OR** the uterus does not return to resting tone between contractions, and/or
- Prolonged contraction: lasting greater than 90 seconds.

PROTOCOL FOR UTERINE TACHYSYSTOLE: INITIATE OR CONTINUE EFM

Tachysytole with Normal FHR:

- Maintain close continuous EFM
- Inform MRP to assess

Tachysytole with Atypical/Abnormal FHR:

- Assessment by MRP as soon as possible
- Initiate intrauterine resuscitation (see below)
- Consider acute tocolysis (see below)
- Consider scalp electrode/bedside ultrasound if any question about external FHR pick-up or uninterpretable tracing
- Expedite delivery if FHR remains abnormal despite intrauterine resuscitation interventions

INTRAUTERINE RESUSCITATION

- Change maternal position (left or right lateral)
- Assess maternal vital signs
- Consider IV bolus (if patient is hypotensive)
- Consider oxygen (if patient is hypoxic)
- Consider tocolysis
- Consider vaginal exam to rule out prolapsed umbilical cord

NITROGLYCERIN (NTG) ADMINISTRATION

- Monitor maternal BP prior to and following administration of each dose and **HOLD** dose if hypotensive.
- Dose: 50 mcg IV q 90 seconds to 3 min, maximum of 200 mcg over 15 minutes.
    - *Sublingual nitro does not work and will give the patient a headache*
- Example of IV NTG mixing directions (ALARM 26th ed.) - Refer to individual hospital policy:
    - *Dilute: 1ml NTG (200mcg/mL) in 9 ml NS*
    - *Concentration : 20 mcg/mL*
    - *Dosage : 50 mcg = 2.5 ml*
- Nursing assessment
    - Maternal SaO_2 and vital signs
    - Continuous EFM
    - Reassess uterine activity following NTG administration and document evaluation
    - If unresolved and FHR remains abnormal, prepare for emergency C/S

Outpatient Induction of Labour: Cervical Ripening

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Outpatient Induction of Labour: Cervical Ripening

GOALS/OBJECTIVES

Induction of labour (IOL) is indicated when the risk of continuing the pregnancy exceed the risks associated with induction of labour. The indication must be convincing, compelling, consented to, and documented. The most common indication is post-dates (ALARM, 2019).

Induction of labour in an outpatient setting is restricted to low-risk circumstances when cervical ripening and labour induction is carried out without an ongoing requirement for continuous or frequent maternal or fetal monitoring.

The use of outpatient induction of labour attempts to balance potential improvements in maternal satisfaction, convenience, reduced length of hospitalization and lower cost, against those of safety (both maternal and fetal) (Kelly, Alfirevic & Ghosh, 2013).

Outpatient ripening is defined as any cervical ripening or induction of labour intervention (with the exception of membrane sweeping) that can be continued at home or within community healthcare settings. It also includes a package of care initially provided in hospital (fetal monitoring, drug administration) after which the patient is allowed home until a later review or until admission in labour (Kelly, Alfirevic & Ghosh, 2013).

The efficacy and safety of controlled-release dinoprostone (Cervidil) are comparable whether it is used in the outpatient or the inpatient setting. For low-risk women, outpatient use may be a highly attractive option, potentially reducing hospital costs, and improving patient convenience.

Induction of labor in the outpatient setting should only be carried out if safety and support procedures are in place. The practice of outpatient induction should be audited continuously (Royal College of Obstetricians and Gynecologists [RCOG], 2008).

PREREQUISITES FOR OUTPATIENT INDUCTION

- Careful assessment of the patient's medical and obstetrical history. Appropriate patients must be selected excluding high-risk pregnancies and/or patient with contraindications for induction.
- Normal Biophysical Profile (BPP) within 7 days **OR** Normal Non-Stress Test (NST) + Amniotic Fluid Assessment within 48hrs.
- Assessment of cervical status (Bishop's score) (**See Appendix A**).
- Detailed verbal and/or written instructions about the induction process must be provided to the patient (**See Appendix B**).
- The patient must reside less than 1 hour away from the hospital.

At the time of discharge, the patient and support person should be provided with the telephone number of the obstetrical triage nurse or the Birthing Unit and instructed to call if they have any questions or concerns **(See Appendix B)**.

OPTIONS FOR CERVICAL RIPENING

Various methods can be used for cervical ripening. These methods can be divided in two groups:

1. Mechanical options: Foley - Balloon catheters
2. Pharmacologic options: Prostaglandins a) posterior fornix slow release PGE_2 (Cervidil®)
   b) vaginal PGE_2 gel (Prostin)
   c) intracervical PGE_2 gel (Prepidil)

NOTE: PGE_2 is available in different doses. Check the box carefully for type of gel and dosage before administering **(See Appendix C).**

Cervidil:	10 mg (controlled release)
Prostin:	1 and 2mg
Prepidil:	0.5 mg

CONSIDERATIONS

Mechanical options: Foley catheters or specifically designed obstetrical balloons. Balloon type catheters work via endogenous prostaglandin release; traction applied to the catheter wherein the balloon exerts pressure on the cervix is not necessary. Balloons are cost effective and carry a lower risk of uterine tachysystole (ALARM, 2019).

Prostaglandins: Cause relaxation of cervical smooth muscle and increase intracellular calcium levels, causing contraction of myometrial muscle.

Also known as dinoprostone, PGE2 is available as an intravaginal or an intracervical gel. Intravaginal gels or preparations are easier to employ, cause less patient discomfort, and are preferred because they result in more timely vaginal delivery than mechanical methods (ALARM, 2019).

PGE_2 is a bronchodilator and is not contraindicated in women who have asthma. Adverse cardiovascular events are rare, idiopathic, and usually occur almost immediately after the gel or preparation has been inserted (ALARM, 2019).

ALERT

It is important to ensure that vaginal agents (Prostin, Cervidil) are not inserted into the cervical canal because they have a much higher dosage than intracervical preparations (Prepidil).

EQUIPMENT

- Sterile gloves and procedure gloves
- Foley/balloon catheter or prostaglandin (PGE_2) preparation
- Foley Catheter kit (additional items to include):
  - No. 14 to 18 foley with a 30 ml balloon (if patient allergic to latex, catheter must be latex free)
  - 30 to 60 ml of water for inflation
  - Sterile bowl
  - Sponge forceps
  - Cord clamp or catheter plug to block drainage port
- Sterile speculum
- Soluble lubricant
- Adequate light source

PRE-ADMINISTRATION PROCEDURE

1. Review/explain procedure to the patient and support person and inform them that each visit to the hospital for cervical ripening can take up 2-3 hours depending on the method used.

2. Have the patient empty their bladder (if needed).

3. Assess and document baseline maternal vital signs.

4. Perform NST/ Electronic Fetal Monitoring (EFM) 30 minute window as appropriate.

5. Assessment of Bishop's Score by most responsible provider (MRP) as needed.

6. Pre-test the Foley/balloon catheter balloon before insertion.

ADMINISTRATION PROCEDURE

1. Insert/administer the Foley/prostaglandin of choice.

2. Provide pericare at completion of procedure (if needed).

POST-ADMINISTRATION PROCEDURE

1. Position patient in semi-Fowler or side-lying position and apply EFM according to Table 1:

TABLE 1 : Recommended FHS requirement associated with methods of cervical ripening and induction of labour **(obstetrical indications for EFM would take precedence)**		
Method	**EFM requirement PRIOR ripening**	**EFM requirement POST ripening**
Balloon devices including Foley	30 minutes	30 minutes
Prostaglandin E2 intravaginal gel 1-2 mg	30 minutes	60-120 minutes
Prostaglandins E2 controlled released vaginal gel 10 mg (Cervidil)	30 minutes	60-120 minutes
Intracervical gel	30 minutes	60-120 minutes
EFM: electronic fetal monitoring; FHR: fetal heart rate; FHS: fetal health surveillance; IA: intermittent auscultation. Adapted from Dore, Ehman et al. 2020.		

2. Discharge the patient home after insertion/administration if:
    - EFM is classified normal after 30-120 minutes of monitoring depending on the method of cervical ripening used. **Refer to TABLE 1**
    - Not in active labour
    - Membranes are intact
    - Maternal vital signs are within normal limits

3. Give the patient an appointment to return to hospital (usually no more than 6-12 hours, depending on the agent used). Advise the patient of reasons to return to the hospital prior to their appointment as per **Appendix B**.

4. A second dose of PGE_2 may be required.

ALERT

Uterine tachysystole**:** Management of tachysytole depends on whether FHR changes are present. A treatment protocol for tachysystole is recommended for every labour unit **(See Appendix D).**

DOCUMENTATION

Document according to your institutional policies and procedures.

REFERENCES AND FURTHER READING

Dore, S., Ehman, W., Azzam, S., Basso, M., Bow, M., Morin, F., Mundle, W., Rivard, L., Sawchuck, D., Wilson, K., Young, D. (2020, March). No. 396 Fetal health surveillance: Intrapartum consensus guideline. *Journal of Obstetrics and Gynecology*, *42*, p.316-348.

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APPENDIX A: Bishop Score

BISHOP SCORE						
SCORE	**DILATATION (cm)**	**EFFACEMENT (cm)**	**STATION**	**POSITION**	**CONSISTENCY**	**FAVORABLE CERVIX Greater than or equal to 6** **A Bishop score greater than 8 increases the likelihood of vaginal birth similar to that of spontaneous labour.** Consider additional cervical ripening to improve Bishop's score prior to additional intervention.
0	Closed	Greater than 3cm	-3	Posterior	Firm	
1	1-2	2-3cm	-2	Mild	Medium	
2	3-4	1-2cm	-1, 0	Anterior	Soft	
3	Greater than 5	0 cm	+1, +2	----	----	**TOTAL SCORE**
SCORE						

APPENDIX B Outpatient Cervical Ripening Information Sheet

INSERT UNIT NAME AND TELEPHONE NUMBER HERE

Your health care provider has booked you for an outpatient cervical ripening before your induction. They will have talked with you about the risks and benefits for you and your baby.

DATE/TIME to expect call: _____ at _____
(YYYY/MM/DD) (HHMM)

If you have not received a call 4-6 hours from the expected time, you need to call the hospital.

You will get a phone call from the hospital telling you when to come in for your cervical ripening.

When you get to the hospital go straight to the nursing station [INSERT UNIT NAME]. There is a chance that when you arrive you will be asked to wait. If this happens, it is because the unit is very busy. In rare cases, you may be asked to return later in the day, evening or possibly the next day. Upon your arrival, a nurse will greet you and bring you to a room where the first assessment of you and your baby will begin.

The nurse will ask you questions while checking your vital signs. They will apply the fetal monitor to your belly to make sure that your baby is doing well before they start the cervical ripening process.

What to Expect:
If you are receiving a **Foley/balloon catheter** for mechanical cervical ripening, it is normal to have some discomfort throughout the procedure followed by menstrual-like cramps.

If you are receiving medication **vaginally**, it is normal to have some back pain and menstrual like cramping. In rare cases, contractions may start quickly and may happen too often. If this happens, some types of medications can be taken out. If the medication cannot be taken out, other medications may be given to help slow or stop the contractions you are having.

Whether you have a Foley or medications, you may have some spotting or pink discharge. If you and baby are coping well, you may be able to go home with a plan to return later.

After 12-24 hours, your health care provider will recheck your cervix to decide whether it is ready for labour.

If your cervix is ready for labour, a plan for induction will be made with you. This may include immediate admission or you may be asked to return home for a short period depending on the situation.
If your cervix is not ready for labour, your health care provider may insert a Foley/balloon or give you extra medications. This may be frustrating at the time, but is completely normal. Additional ripening of your cervix will increase your chance of having a successful vaginal birth. In some cases, cervical ripening can take 3-4 days.
During this time, you may have a shower or bath, eat normally, sleep and resume your usual activities.

You will need to call the triage nurse (PHONE NUMBER) 6 hours ( ) and 12 hours ( ) after you have gone home. This telephone call is very important. The nursing staff will ask you questions and answer any questions you may have. If you are tired and want to go to sleep before the time you are supposed to call for assessment, please call the triage nurse to let them know.

If your Foley/balloon falls out:
Throw it in the garbage and call the hospital to let them know. If it does not fall out, return to the hospital at the planned time for reassessment.

Call the nurse if:

- Your contractions are every 5 minutes or closer
- You have severe abdominal pain
- Your water breaks
- You are having bright red bleeding that is more than "pink mucousy discharge"
- You think your Cervidil or Foley/balloon has fallen out
- You have any concerns or are unsure of what to do
- You are planning to sleep or will be out of the house when the follow-up phone calls are due.

If you have a Cervidil for cervical ripening and you have contractions that are too close together, the triage nurse may ask you to pull it out. It has a string like a tampon and can easily be pulled out by putting your fingers into your vagina to grab the string and then pulling it out like a tampon.

Cautions:

- **Do not use any form of aspirin, ibuprofen or pain relief cream.**
- **When toweling off or after going to the bathroom, carefully pat (not wipe) your vagina so you don't accidentally remove the Cervidil or Foley/balloon. Make sure you do not tug on the Foley/balloon; tugging may cause additional cramping. If it falls out, DO NOT attempt to put it back in, call the hospital. You may be asked to return to the hospital.**

My questions for the labour and birth staff:

Your cervical ripening has been booked for _____ (date). If you have not heard from the hospital when expected, please call [INSERT NUMBER] to determine when would be the best time for you to arrive to the unit.

APPENDIX C: Cervical Ripening Options for Outpatient IOL

Cervical Ripening		Route	Dose	Number of doses	Contra-indications	Removal	Time until oxytocin	Management
Mechanical	**Foley Catheter**	Insert past internal os	No. 14 to 18 Foley with 30ml balloon Inflate 30-60ml of water	1	**RELATIVE:** ROM Genital tract infection _____ **ABSOLUTE:** Low-Lying Placenta	Remove within 24hrs if it has not fallen out	Immediately following removal or may use concurrently	Safe use with TOLAC Traction is not necessary Can be done as outpatient
Pharmacological	**PGE 2 Dinoprostone vaginal insert (Cervidil)**	Posterior fornix	10mg (release of 0.3mg/h) over 12hrs	2 (may be repeated once 12-24hrs later)	TOLAC	When in active labour or 12-24hrs post-insertion Easy removal by pulling on the string	30 minutes	Remain in supine position 1h after insertion Can be done as outpatient
	PGE 2 Dinoprostone vaginal gel (Prostin)	Posterior fornix ***(Not to be placed in the cervical canal)***	Initial dose: 1mg Repeat dose: 1 -2mg	2 (may be repeated once 6 hours later)	TOLAC	Not removable	6 hours	Remain in supine position 30min after insertion to prevent leakage May be considered with ROM at term Can be done as outpatient
	PGE 2 Dinoprostone intracervical gel (Prepidil)	Intracervical	0.5mg	1	TOLAC and PROM	Not removable	6 hours	Remain in supine position 10-15min after insertion to prevent leakage Can be done as outpatient

ROM= Rupture of membranes
TOLAC= Trial of labour after cesarean section
PROM= Prelabour rupture of membranes

APPENDIX D: Treatment of Tachysystole

DEFINTION: Tachysystole

- Greater than 5 contractions in 10 minutes, averaged over 30 minutes, and/or
- Inadequate resting tone (less than 30 seconds) **OR** the uterus does not return to resting tone between contractions, and/or
- Prolonged contraction: lasting greater than 90 seconds.

PROTOCOL FOR UTERINE TACHYSYSTOLE: INITIATE OR CONTINUE EFM

Tachysytole with Normal FHR:

- Maintain close continuous EFM
- Inform MRP to assess

Tachysytole with Atypical/Abnormal FHR:

- Assessment by MRP as soon as possible
- Initiate intrauterine resuscitation (see below)
- Consider acute tocolysis (see below)
- Consider scalp electrode/bedside ultrasound if any question about external FHR pick-up or uninterpretable tracing
- Expedite delivery if FHR remains abnormal despite intrauterine resuscitation interventions

INTRAUTERINE RESUSCITATION

- Change maternal position (left or right lateral)
- Assess maternal vital signs
- Consider IV bolus (if patient is hypotensive)
- Consider oxygen (if patient is hypoxic)
- Consider tocolysis
- Consider vaginal exam to rule out prolapsed umbilical cord

NITROGLYCERIN (NTG) ADMINISTRATION

- Monitor maternal BP prior to and following administration of each dose and **HOLD** dose if hypotensive.
- Dose: 50 mcg IV q 90 seconds to 3 min, maximum of 200 mcg over 15 minutes.
    - *Sublingual nitro does not work and will give the patient headache*
- Example of IV NTG mixing directions (ALARM 26th ed.) - Refer to individual hospital policy:
    - *Dilute: 1ml NTG (200mcg/mL) in 9 ml NS*
    - *Concentration : 20 mcg/mL*
    - *Dosage : 50 mcg = 2.5 ml*
- Nursing assessment
    - Maternal SaO_2 and vital signs
    - Continuous EFM
    - Reassess uterine activity following NTG administration and document evaluation
    - If unresolved and FHR remains abnormal, prepare for emergency cesarean section (C/S)