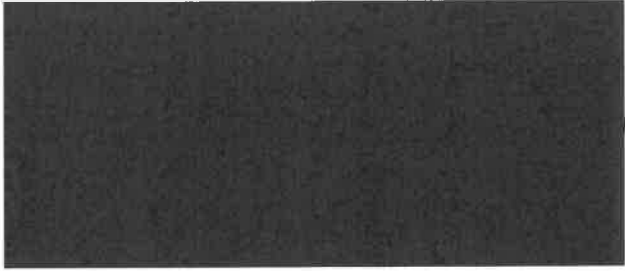


CLINICAL GUIDELINES ID TAG	
Title:	Induction of Labour (IOL)
Author:	
Speciality / Division:	IMWH – SCS
Directorate:	Acute
Date Uploaded:	15/4/25
Review Date:	25/4/2028
Clinical Guideline ID:	CG0252[2]

Induction of Labour (IOL) Guideline SHSCT

Contents

1.0 Purpose of Guideline

Induction of labour is defined as the process of artificially stimulating the uterus to start labour (WHO, 2020).

The purpose of this guideline is to provide guidance and outline best practice for women who are being offered induction of labour (IOL), in line with NICE (2021) NG207 *Inducing Labour*.

2.0 Responsibilities

Clinical Directors and Lead Midwives are responsible for the dissemination and implementation of this guidance within IMWH.

Line Managers are responsible for ensuring staff have a working knowledge of and adhere to the guidance, and future amendments are disseminated.

All practitioners are responsible for familiarising themselves with and using this guidance to influence practice.

3.0 Evidence-Based Information and Decision-Making

Discuss preferences about mode of birth with women early on in their pregnancy. Take into account their individual circumstances and discuss that options for birth can include expectant management, induction of labour, or planned caesarean birth. Record these discussions and the woman's preferences in her maternity record. Confirm a woman's preferences for birth at antenatal visits towards the end of pregnancy, as these may have changed since earlier discussions.

When discussing induction of labour place of birth should be considered, taking into consideration the antenatal risk stratification (see appendix 1)

4.0 Impact on Birth Options and Experiences

Explain to women that induction of labour is a medical intervention that will affect their birth options and their experience of the birth process.

This could include that:

- Vaginal examinations to assess the cervix are needed before and during induction, to determine the best method of induction and to monitor progress
- Their choice of place of birth will be limited, as they may be recommended interventions (for example, oxytocin infusion, continuous fetal heart rate monitoring and epidurals) that are not available for home birth or in midwife-led birth units

- There may be limitations on the use of a birthing pool
- There may be a need for an assisted vaginal birth (using forceps or ventouse), with the associated increased risk of obstetric anal sphincter injury (for example, third- or fourth-degree perineal tears)
- Pharmacological methods of induction can cause hyperstimulation – this is when the uterus contracts too frequently or contractions last too long, which can lead to changes in fetal heart rate and result in fetal compromise
- An induced labour may be more painful than a spontaneous labour
- Their hospital stay may be longer than with a spontaneous labour.

5.0 Providing Information on the IOL Process

Discuss with women being offered induction of labour:

- The reasons for induction being offered
- When, where and how induction could be carried out
- The arrangements for support and pain relief
- The alternative options if the woman chooses not to have induction of labour, or decides at a later stage that she no longer wishes to proceed with the induction process
- The risks and benefits of induction of labour in specific circumstances, and the proposed induction methods
- That induction may not be successful, and how this would affect the woman's options.

Regional and local leaflets on Induction of Labour should be provided to support the discussion between healthcare professionals, women and their partners.

6.0 Induction of Labour in Specific Circumstances

6.1 Pregnancy Lasting Longer Than 41 Weeks

Give women with uncomplicated pregnancies every opportunity to go into labour spontaneously. Explain to women that labour usually starts naturally before 42+0 weeks, based on the gestational age estimated by their dating scan.

Explain to women that there is evidence that caesarean birth, perinatal mortality and neonatal intensive care unit admission are reduced by earlier induction of labour (at 41+0 weeks) compared to later induction (at 42+0 weeks or after).

Furthermore, discuss while the NICE Committee agreed that the risk of perinatal mortality, NICU admission, and caesarean birth increases with induction of labour, the absolute risk remains low: (NICE, 2021)

Table 1: Outcomes for women that may be more likely with induction at 40-42 weeks (nulliparous women only)			
Outcomes	Induction of labour at 39 weeks	Induction of labour at 40-42 weeks	Risk difference
Caesarean birth	About 1,860 per 10,000 women would be expected to have a caesarean birth (so 8,140 would not)	About 2,220 per 10,000 women would be expected to have a caesarean birth (so 7,780 would not)	About 360 more women per 10,000 whose labour was induced at 40-42 weeks would be expected to have a caesarean birth; so for 9,640 per 10,000 the outcome would be the same irrespective of the timing of induction
NICU admission	About 1,170 per 10,000 babies would be expected to be admitted to NICU (so 8,830 would not)	About 1,300 per 10,000 babies would be expected to be admitted to NICU (so 8,700 would not)	About 130 more babies per 10,000 whose mothers' birth was induced at 40-42 weeks would be expected to be admitted to NICU; so for 9,870 the outcome would be the same irrespective of the timing of induction

Outcomes for:-

- Maternal death
- Perinatal death
- Meconium aspiration syndrome (MAS)
- Hypoxic-ischaemic encephalopathy (HIE)
- Instrumental vaginal birth

With IOL at 39 weeks and 40-42 weeks for nulliparous women are highlighted in the table below (NICE 2021):

Table 2: Outcomes for women that may be more likely with induction at 42 weeks (mixed parity)			
Outcomes	Induction of labour at 41 weeks	Induction of labour at 42 weeks	Risk difference
Perinatal death	About 4 per 10,000 babies would be expected to die (so 9,996 would not)	About 35 per 10,000 babies would be expected to die (so 9,965 would not)	About 31 more babies per 10,000 whose mothers gave birth at 42 weeks would be expected to die; so for about 9,969 babies per 10,000 the outcome would be the same irrespective of the timing of induction
NICU admission	About 300 per 10,000 babies would be expected to be admitted to NICU (so 9,700 would not)	About 440 per 10,000 babies would be expected to be admitted to NICU (so 9,560 would not)	About 140 more babies per 10,000 whose mothers gave birth at 42 weeks would be expected to be admitted to NICU; so for about 9,860 babies per 10,000 the outcome would be the same irrespective of the timing of induction

Outcomes that are likely to remain the same with IOL at 41 weeks and 42 weeks for all parity women (NICE 2021):

- Maternal death
- Caesarean birth
- Instrumental vaginal birth
- Unassisted vaginal birth
- Meconium aspiration syndrome (MAS)
- Hypoxic-ischaemic encephalopathy (HIE)

Discuss with women that induction of labour from 41+0 weeks may reduce these risks, but that they will also need to consider the impact of induction on their birth experience when making their decision.

Explain that the NICE Committee acknowledged that not enough evidence is currently available on the optimal timing of induction for post dates pregnancy, so a recommendation has been made for research to identify the optimal timing of induction more precisely (NICE, 2021).

Offer women who choose to await the spontaneous onset of labour the opportunity to discuss their decision again at all subsequent reviews, if they wish to do so. Advise women to contact their midwife or maternity unit if they change their mind before their next appointment, or as soon as possible if they have concerns about their baby (for example reduced or altered fetal movements).

Offer women who choose not to have their labour induced additional fetal monitoring from 42 weeks.

Advise women that monitoring only gives a snapshot of the current situation, and cannot predict reliably any changes after monitoring ends, but provides information on how their baby is at that moment, and so may help them make a decision on options for birth. Adverse effects on the baby, including stillbirth, and when these

events might happen, cannot be predicted reliably, or prevented even with monitoring.

Refer to the SHSCT Guideline CG0826 “Care of Women With Post Dates Pregnancy” for guidance on care for women declining IOL at 41 weeks’ gestation. [Care-of-Women-with-Post-Dates-Pregnancy.pdf](#)

6.2 Preterm Prelabour Rupture of Membranes (PPROM)

Induction of labour should not be carried out before 34 weeks unless there are additional obstetric indications (for example, infection or fetal compromise). Women with PPRM diagnosed after 24 weeks gestation should be offered expectant management until 37 weeks gestation, if there are no contraindications to continuing the pregnancy.

If a woman has PPRM after 34 weeks but before 37 weeks, discuss with her:

- Risks to the woman (e.g. sepsis, possible need for caesarean birth)
- Risks to the baby (e.g. sepsis, complexities relating to preterm birth)
- Local availability of neonatal intensive care facilities
- The woman’s individual circumstances and her preferences.

If a woman has PPRM after 34 weeks but before 37 weeks, and has had a positive group B streptococcus test at any time in their current pregnancy, offer immediate augmentation of labour or caesarean birth.

Augmentation process for women with PPRM:

- PGE2 3mg PV tablet*, followed by transfer to Delivery Suite after 6 hours, and augmentation with oxytocin
- Oxytocin alone in selected cases.

6.3 Prelabour Rupture of Membranes at Term (PROM)

Offer women with prelabour rupture of membranes at term (at or over 37 weeks gestation) a choice of expectant management for approximately 24 hours, or augmentation of labour as soon as possible, taking into consideration any obstetric complications such as meconium stained liquor.

Women testing positive for GBS should be offered immediate augmentation of labour or caesarean birth.

Discuss the benefits and risks of these options with the woman, and take into account her individual circumstances and preferences. Respect the woman's decision if she chooses to wait for spontaneous onset of labour for over 24 hours after PROM.

Augmentation process for women with PROM:

- PGE2 3mg PV tablet*, followed by transfer to Delivery Suite after 6 hours, and augmentation with oxytocin
- Direct admission to Delivery Suite for oxytocin augmentation.

6.4 Previous Caesarean Birth

If birth needs to be expedited, offer women who have had a previous caesarean birth a choice of induction of labour, or planned caesarean birth. Take into account the woman's circumstances and preferences and record the discussions and plan in the woman's records. Advise women that they can choose not to have induction of labour or caesarean birth, even when it may benefit their or their baby's health.

Discuss methods of induction with a woman who has had a previous caesarean birth, so that she can make an informed decision about the most appropriate choice. This should cover the following:

- Induction of labour can lead to an increased risk of emergency caesarean birth
- Induction of labour can lead to a risk of uterine rupture
- The suitability of mechanical methods of induction, including the risk of infection
- The marketing authorisations for dinoprostone (PGE2 3mg) contraindicate their use for inducing labour in women with a uterine scar, because they increase the risk of uterine rupture
- The risks and consequences of caesarean birth, including both short- and long-term morbidity.

IOL process for women wishing VBAC:

- Mechanical method (balloon)
- If cervix is favourable, amniotomy and oxytocin can be considered.
- PGE2 3mg PV tablet*, followed by vaginal examination after 6 hours to assess suitability for ARM, and oxytocin augmentation on Delivery Suite. **The use of a PGE2 3mg for VBAC must be discussed with the Consultant before proceeding and documented within the records.**

*The SmPCs for Prostin E2 vaginal tablets states that these products are not recommended for IOL for VBAC or PROM. However, there is sufficient established practice and evidence to support use in these groups.

6.5 Maternal Request

Consider requests for induction of labour only after discussing the benefits and risks with the woman, taking into account the woman's circumstances and preferences.

6.6 Breech Presentation

Induction of labour is generally not recommended if a woman's baby is in the breech position.

Consider induction of labour for babies in the breech position if the woman chooses not to have a planned caesarean birth and the external cephalic version is unsuccessful, declined or contraindicated. Please refer to the breech presentation in labour counselling and assessment (see Appendix 2).

6.7 Suspected Fetal Macrosomia / Large for Gestational Age (LGA) Baby

Advise women that clinical fetal weight estimation is unreliable, and third-trimester ultrasound scans have at least a 10% margin for error for actual birth weight and a sensitivity of just 60% for macrosomia (over 4.5kg) (RCOG, 2012).

Discuss with women without diabetes and with suspected fetal macrosomia / LGA baby that the options for birth are expectant management, induction of labour, or caesarean birth.

Discuss that there is uncertainty about the benefits and risks of induction of labour compared to expectant management, but:

- With induction of labour the risk of shoulder dystocia is reduced compared with expectant management (see table 3 below)
- With induction of labour the risk of third- or fourth-degree perineal tears is increased compared with expectant management (see table 3 below)
- There is evidence that the risk of perinatal death, brachial plexus injuries in the baby, or the need for emergency caesarean birth is the same between the 2 options
- They will also need to consider the impact of induction on their birth experience and on their baby.

Outcome	Induction of labour	Expectant management	Risk difference
Shoulder dystocia	About 410 babies would per 10,000 would be expected to have a shoulder dystocia (so 9,590 would not)	About 680 babies per 10,000 would be expected to have a shoulder dystocia (so 9,320 would not)	About 270 more babies per 10,000 whose mother's birth was managed expectantly would be expected to have a shoulder dystocia; so for 9,730 the outcome would be the same irrespective of the management strategy
Third or fourth degree perineal tears	About 260 per 10,000 women would be expected to have third or fourth degree tears (so 9,740 would not)	About 69 per 10,000 women would be expected to have third or fourth degree tears (so 9,931 would not)	About 191 women whose labour was induced would be expected to have third or fourth degree tears; so for 9,809 the outcome would be the same irrespective of the management strategy

(NICE 2021: table 3)

In relation to the risk of shoulder dystocia (SD) in suspected fetal macrosomia / LGA babies, discuss with women:

- The large majority of infants with a birth weight $\geq 4500\text{g}$ do not develop SD
- 48% of births complicated by SD occur with infants who weigh less than 4000g
- In non-diabetic women with an estimated fetal weight $>4\text{kg}$, an additional 2,345 caesarean births would be required to prevent one permanent injury from SD. (RCOG, 2012)

6.8 Advanced Maternal Age (RCOG, 2013)

The incidence of stillbirth at term (40 weeks) is higher in women of advanced maternal age (≥ 40 years of age): 1 woman in 132 aged ≥ 40 , versus 1 in 182 women aged 35-39 years, and 1 in 213 women aged 30-34 years.

IOL can be offered to women aged 40 years and over at 39–40 weeks as the available evidence suggest that this practice will reduce the risk of late antenatal still birth and maternal risks of an ongoing pregnancy such as preeclampsia. However, further research is required to define the effect of IOL in women of advanced maternal age.

6.9 Grand Multiparous Women

Management should be individualised and take account of indication and vaginal examination findings. Any woman with parity >5 should be discussed with Consultant Obstetrician for individualised plan on admission.

Propress is not licensed for women with parity >3 and PGE2 3mg tablet is not licensed for parity >5.

Assess Bishop Score:

- Bishop score more than 6: Consider direct ARM and intravenous oxytocin infusion
- Bishop score 6 or less: Offer induction of labour with PGE2 3mg PV tablet, followed by vaginal examination 6 hours later, and further PGE2 3mg PV or transfer to Delivery Suite for ARM and augmentation.

7.0 Methods of Induction of Labour

7.1 Membrane Sweeping

The aim of membrane sweeping is used to promote the normal physiological onset of labour by releasing localised hormones to soften and ripen the cervix, increasing cervical favourability and stimulating spontaneous uterine contractions (Finucane *et al.*, 2020).

Membrane sweeping is performed with consent during a vaginal examination. It involves the examining finger passing through the cervix to rotate against the wall of the uterus, to separate the chorionic membrane from the decidua of the uterus. If the cervix will not admit a finger, massaging around the cervix in the vaginal fornices may achieve a similar effect.

Discuss with women the evidence that membrane sweeping may be effective in achieving a spontaneous onset of labour (Finucane *et al.*, 2020):

- 6 out of 10 women ended up in spontaneous labour without a membrane sweep (598 women in 1000)
- Just over 7 out of 10 women ended up in spontaneous labour with a membrane sweep (723 in 1000)
- 3 out of 10 women without a membrane sweep had their labour induced (313 women in 1000)
- 2 out of 10 women with a membrane sweep had their labour induced (228 women in 1000).

At antenatal visits after 39+0 weeks, discuss with women if they would like a vaginal examination for membrane sweeping, and if so obtain verbal consent from them before carrying out the membrane sweep.

Explain to women:

- What a membrane sweep is

- That membrane sweeping might make it more likely that labour will start without the need for additional pharmacological or mechanical methods of induction
- That pain, discomfort and vaginal bleeding are possible from the procedure.

If membranes rupture during a membrane sweep, the pathway for PROM will be followed.

Discuss with women whether they would like to have additional membrane sweeping if labour does not start spontaneously following the first sweep.

7.2 Cervical Ripening – Mechanical and Pharmacological Methods

Women should be offered induction of labour via pharmacological or mechanical methods of induction.

Explain to women that a vaginal examination to assess the readiness of the cervix (recorded as the Bishop Score) will help to decide which method of induction would be most appropriate for them. A vaginal examination should be offered to determine this.

Discuss with women the risks and benefits of different methods to induce labour. Include that:

- When using pharmacological methods of induction, uterine activity and fetal condition should be monitored 4 hourly or more frequently if clinically indicated.
- If hyperstimulation occurs, care should be escalated to the senior doctor for review and management plan. In the event that a Propess has been inserted, the Propess should be removed. Terbutaline 0.25mg SC should be considered.
- Mechanical methods are less likely to cause hyperstimulation than pharmacological methods.

7.3 Cervical Ripening – Mechanical Methods

Balloon Catheter

The aim of the balloon catheter is to cause cervical ripening through mechanical pressure on the cervix, which stimulates the release of endogenous prostaglandins. Most women are then suitable for artificial rupture of membranes (ARM) following 24 hours of use. In the event that the balloon falls out before 24 hours these women should be offered immediate augmentation by ARM if work load permits.

Balloon catheter induction has a favourable risk profile:

- Low risk of uterine hyperstimulation, uterine rupture and adverse cardiotocography (CTG) changes
- Lower in cost than Propess
- More suitable for women who have had a previous caesarean birth, or are at risk of placental insufficiency and fetal compromise

Following introduction of inpatient balloon catheter induction in March 2021, we are now in a position to implement a hybrid system with outpatient induction with balloon catheter for women deemed suitable.

Suitable for outpatient IOL	
Yes	No (unless consultant approval)
Prolonged pregnancy up to T+14	GDM insulin/ metformin
Advanced Maternal Age	PIH/ PET
Social	Multiple Pregnancy
LGA	Previous caesarean birth
GDM diet	SGA
	Type 1 DM
	Reduced fetal movement
	IOL with pharmacological agents

List is not exhausted and clinical judgement should be used if any query regarding suitability for outpatient IOL, discuss with consultant on call.

Contraindications to Insertion

- Ruptured membranes
- Regular uterine activity (i.e. in early labour, in which case they should be left to establish without intervention. Women with mild tightenings can still have balloon catheter IOL)
- Suspected lower genital tract infection
- Breech presentation / Unstable lie / Fetal head >4/5^{ths} palpable abdominally
- Abnormal CTG
- Placenta praevia
- Undiagnosed vaginal bleeding
- Suspected or confirmed polyhydramnios.

7.4 Process for Balloon Catheter Insertion

Perform abdominal palpation to assess fetal lie, presentation and head engagement

- Perform CTG for 20 minutes
- Perform vaginal examination and determine Bishop Score
- If CTG is normal insert balloon catheter and remove CTG
- If unsuitable for outpatient IOL 4 hourly CTG's should be performed.
- Record maternal observations and auscultate FHR for 1 minute
- Assess for any vaginal loss
- Check presentation
- Medical review if any concerns

- Size 18ch foley catheter is inserted into the cervix either digitally or with the aid of a speculum
- 50mls of sterile water is then instilled into the catheter balloon and correct placement is checked (above internal os)
- The outflow tract of the catheter should be occluded with a spigot. The catheter is then taped to the woman's leg for comfort.

The aim is for the balloon catheter to be in situ for 24 hours. However, to aid workload planning they can also be used for 12 hours. For example, this would allow VBACs to come in at 6pm and then brought to delivery suite for ARM +/- oxytocin at 6am, aiming for birth during the day.

If the balloon catheter cannot be inserted, then other options should be discussed with the woman, including hormonal methods.

7.5 Issues that May be Encountered During Use of Balloon Catheter

Complications following the use of a balloon catheter are uncommon; however, the following may be encountered:

- Discomfort on insertion
- Discomfort with balloon in place – consider removing 10mL of water from the balloon
- Unintended amniotomy
- Vaginal bleeding
- Infection
- Malpresentation – caution in multiparous women. Consider using less than 50mL of water in the balloon catheter.

The woman should be informed that a small amount of blood may appear within the catheter tubing and this is normal.

Remove the balloon catheter if:

- There is evidence of fetal compromise (abnormal fetal heart rate / abnormal CTG)
- There is evidence of uterine tachysystole, hypertonus or hyperstimulation
- There are maternal systemic adverse effects
- There is a spontaneous rupture of membranes.

If Labour Establishes whilst Balloon catheter is inserted:

- Assess contractions
- If contractions are ≥ 4 in 10 minutes remove Balloon
- Perform CTG to establish fit for labour.

Following the onset of labour, women can be offered intermittent auscultation of the fetal heart rate if the CTG was classified as fit for labour and there is no other indication for continuous electronic fetal monitoring

7.6 At 24 Hours Post Insertion of Foley Catheter

The balloon catheter should be removed at 24 hours post insertion by removing the 50mL of water from balloon and applying to light traction.

Record maternal observations and auscultate FHR for 1 minute.

Assess suitability for ARM. If unsuitable, for medical review and consideration of pharmacological method of induction.

7.7 Management on Transfer to Labour Ward

If the cervix is favourable, amniotomy should be offered. If accepted, oxytocin infusion should then be considered and offered 60 minutes after the amniotomy. The decision to commence Oxytocin should be made in conjunction with the woman. Please refer to the SHSCT guideline for the use of intravenous oxytocin for labour.

Once labour has established, vaginal examinations should be offered 4 hourly, unless there is another clinical indication to perform earlier (e.g. fetal heart rate abnormality).

7.8 Cervical Ripening – Pharmacological Methods

The Southern Trust advocates the use of Propess 10mg pessary and Prostin 3mg tablet.

The recommended regimens are:

- 10mg Vaginal Propess controlled release: one dose over 24 hours.
- Vaginal PGE2 3mg: one dose for 6 hours. A vaginal examination should be offered with consent to assess if amniotomy would be possible. A second PGE2 3mg, no sooner than 6 hours can be administered if labour has not established. (Maximum 2 doses in 24 hours.)
- Timing of administration of Propess or PGE2 3mg tablet or will depend on the workload in labour ward and clinical need of the induction.
- When Propess or PGE2 has been the method of induction, **4 hourly CTG's must be preformed** irrespective of the indication for induction.

7.9 Propess

Propess is a vaginal pessary containing 10mg of dinoprostone, delivered by sustained release over 24 hours.

Propess is licensed for use in women with **parity 3** or less without any additional contraindication.

Contraindications to Propess administration:

- Previous caesarean birth
- Allergy to Prostaglandins
- CTG classified as not fit for labour
- Suspected cervical stenosis (e.g. following previous major cervical surgery, for example multiple LLETZs, cone biopsy)
- Gestation less than 37 weeks

Caution to use of Propess

- Parity >3 (use with caution as there are no studies performed)
- Severe asthma, glaucoma, multiple pregnancy

7.10 Process for Propess Insertion

- Perform abdominal palpation to assess fetal lie, presentation and head engagement
- Perform CTG for 20 minutes to determine fetus fit for labour
- Perform vaginal examination and insert Propess
- Document Bishop score along with Vaginal examination findings
- Continue CTG for 60 minutes and remove if normal
- Evaluate CTG using checklist on antenatal sticker in absence of regular uterine contractions.

Propess should be inserted as follows:

- Propess should be removed from the freezer and can be inserted immediately.
- To remove Propess from packaging, tear along foil (do not use scissors). Use the retrieval system to gently pull the product out of the sachet.
- Propess should be held between the index and middle finger and inserted high into the posterior vaginal fornix using only a small amount of a water-soluble lubricant to aid insertion. NB Hibitane should not be used as this interferes with the pharmacological properties.
- The Propess should lie transversely in the posterior fornix.
- After Propess has been inserted ensure that there is sufficient tape outside the vagina to allow removal. No attempt should be made to tuck the end of the tape into the vagina.

Insertion and removal times for Propess should be recorded in the maternity records.

Post Propess insertion – initial management:

At 1 hour post-insertion, the CTG, if normal, should be discontinued. Any adverse effects should be noted (nausea, vomiting, fever, vaginal irritation, abdominal pain, vaginal bleeding, hypertonic uterine activity, abnormal fetal heart rate).

When Propess has been the method of induction, **4 hourly CTG's must be preformed** irrespective of the indication for induction.

The woman should be instructed to inform the midwife if:

- Contractions become regular (every 5 minutes or more frequent)
- She becomes uncomfortable with contractions
- She has bleeding
- The membranes rupture
- Propess falls out or drops lower in the vagina

The frequency of contractions and any vaginal loss should be documented.

The frequency of maternal observations should be tailored to the clinical needs of the woman, and as a minimum should be recorded 12 hourly.

Any palpable uterine activity which is painful for the woman should be regarded as a contraction.

If there are regular painful contractions (3 or more in 10 minutes for a period of 30 minutes) or morphine is administered, then a CTG should be performed to ensure the fetus remains fit for labour.

Continuous CTG monitoring should start and remain in place at the onset of regular uterine activity.

If any of the following occur then the Obstetric team should be informed to review the woman:

- Contractions more frequent than 5 in 10
- Concern about the fetal heart rate / abnormal or pathological CTG
- Vaginal bleeding
- Maternal systemic adverse effects such as nausea, vomiting, hypotension or tachycardia.

7.11 At 24 Hours Post Insertion of Propess.

A cervical assessment and a decision regarding amniotomy should be made.

If amniotomy is possible, Propess should be taken out and women should be offered transfer to delivery suite. The timing of this will depend on the volume of clinical activity on labour ward and the woman's risk profile.

If amniotomy is not possible, Propess should be taken out and a discussion should be had between the woman, the Midwife and the medical team. The discussion and decision will be individualised and depend on the overall clinical scenario and the wishes of the woman.

There is no evidence to support the administration of a PGE2 3mg. The On Call Consultant Obstetrician may, however, request this additional step depending on the delivery suite workload, or may be requested by the woman.

7.12 Management on Transfer to Labour Ward

If the cervix is favourable, amniotomy should be offered. If accepted a Oxytocin infusion should then be considered and offered 60 minutes after the amniotomy.

Vaginal examinations once labour has established, should be offered 4 hourly unless there is another clinical indication to perform earlier (e.g. fetal heart rate abnormality or delivery felt to be imminent).

If cervix is unfavourable, after discussion with the obstetric team, the midwife and the women, oxytocin infusion should be offered and commenced 60 minutes following the removal of Propess. Cervical assessment should be offered after 4 hours to perform amniotomy. These women should be advised of and offered continuous CTG monitoring.

If amniotomy is still not possible a further discussion with the woman, midwife and obstetric team regarding next steps and plan of care is required.

7.13 Issues that May be Encountered During Use of Propess

- Uterine Hyperstimulation
- Tachysystole: ≥ 5 contractions in 10 minutes with normal CTG
- Hypertonus: painful contraction lasting > 60 seconds with normal CTG
- Hyperstimulation: Tachysystole or hypertonus with abnormal CTG

In the presence of uterine tachysystole, hypertonus or hyperstimulation the following action should be taken:

- Inform on-call SAS doctor or senior registrar
- Perform CTG
- Place woman in left lateral position
- Remove Propess – keep in labelled universal container
- Consider transfer to labour ward if CTG classified as not fit for labour
- IV Access
- FBC / Group & Hold / U&E

If uterine hyperstimulation or CTG concerns persist after removal of Propess administer 0.25mg subcutaneous Terbutaline. However, due to the short half-life of Propess and slow release per hour, the hyperstimulation should resolve spontaneously within 15-20 minutes.

If the cervix is unfavourable after removal of Propess and there is no fetal compromise, the Propess may be re-inserted after 30 minutes. CTG monitoring

should continue for 1 hour following the reinsertion of Propess, if it was removed for an abnormal trace or hyperstimulation.

If cervix is favourable and a woman has regular contractions, await events. Elective amniotomy in the presence of very recent/ongoing increased contraction activity should be avoided if possible at this time, as this will increase prostaglandin release.

7.14 Removal of Propess

Remove Propess when:

- There is evidence of fetal compromise (abnormal fetal heart rate as per antenatal CTG checklist)
- There is evidence of uterine tachysystole, hypertonus or hyperstimulation
- There are maternal systemic adverse effects.

7.15 Spontaneous Rupture of membranes (SROM) with Propess In Situ

The reservoir of 10mg Propess is released at 0.3 mg/hr over 24 hours, whereas release is higher and more variable in women with ruptured membranes.

- Assess contractions and perform CTG
- If contractions are ≥ 4 in 10 minutes remove Propess and transfer to delivery suite when space available. Consider oxytocin augmentation if required. Infusion of oxytocin should not be started within 60 minutes of removal of Propess
- If there are no contractions, then Propess may be left in place for the remainder of the 24 hours.

7.16 If Labour Establishes Following Propess Insertion

- Assess contractions
- If contractions are ≥ 4 in 10 minutes remove Propess
- Perform CTG for 20 minutes to assess fit for labour
- If labour established transfer to delivery suite

7.17 If Propess Falls Out

If Propess falls out a new Propess pessary may be used, but the woman should receive no more than 24 hours of Propess in total. A new prescription for Propess is not required.

No additional CTG monitoring is necessary unless fetal heart rate auscultation warrants otherwise.

Clear explanation to mother and documentation should be made if Propess is

repositioned or new one inserted.

7.18 Missing Propess

If Propess is not found during the final assessment after 24 hours and no history of Propess falling out or being removed has been documented, two members of the team, one of them being medical staff have to confirm that Propess is not in the vagina and documentation in the notes to be made before oxytocin infusion is started.

7.19 PGE2 3mg Tablet

The recommended maximum dose of PGE2 3mg is 2 tablets in 24 hours^{1,6}. Any decision regarding a 3rd pessary (especially for a parous woman) in the next 24-hour period should be made by a Consultant.

Maternal and fetal observations should be conducted in same manner as for Propess.

If there are concerns regarding CTG or increased contraction frequency, unless immediately post insertion, it is unlikely that tablet will be retrievable. Peak absorption of the PGE2 3mg occurs 40 minutes post insertion.

7.20 Induction of Labour by Amniotomy (Artificial Rupture of Membranes (ARM))

In the event of bishop score more than 6, offer induction of labour with amniotomy and an intravenous oxytocin infusion. (NICE 2021)

Contraindications to IOL via amniotomy

- Malpresentation
- High presenting part
- Unfavourable cervix
- Vasa previa
- Placenta previa
- Cord presentation

Process for Amniotomy

- Perform abdominal palpation to assess fetal lie, presentation and head engagement
- Perform CTG for 20 minutes to determine fetus fit for labour
- Perform vaginal examination
- Using an amnihook, hold the handle of the hook with non-dominant hand outside the vagina. While inserting the amnihook care should be taken to protect maternal tissue. When the hook is placed against the amniotic sac, the tip should

be pressed against the sac using the index or middle finger of the internal hand to pierce the membranes. The hook should then be pulled through the membranes to create a hole in the sac. The examining hand should remain in place to confirm there is no cord prolapse following the amniotomy. The hook should be carefully removed.

- Document Bishop score along with Vaginal examination findings and liquor colour.

Monitoring following Amniotomy for women receiving universal care

Following amniotomy CTG should be continued for 20minutes, if trace classified as fit for labour, CTG should be discontinued. Advise women that they can delay commencement of oxytocin infusion for up to 4 hours and await expectant management. The fetal heart should be auscultated hourly until first stage of labour then as per regional intrapartum fetal monitoring guideline. [Regional-Intrapartum-Fetal-Monitoring-Guideline.pdf](#)

If labour has not established then intravenous oxytocin to be discussed.

Monitoring following Amniotomy for women receiving additional care

Continuous CTG monitoring as per regional intrapartum fetal monitoring guideline.

8.0 Unsuccessful Induction of Labour

Unsuccessful induction is defined as labour not starting after induction treatment.

If induction is unsuccessful, discuss this with the woman and provide support. Fully reassess the woman's condition and the pregnancy in general, and assess fetal wellbeing using antenatal CTG interpretation.

If induction is unsuccessful, the subsequent management options include:

- Offering a rest period if clinically appropriate and then re-assessing the woman
- Expectant management
- Further attempts to induce labour
- Caesarean birth.

7.0 References

Finucane E.M., Murphy D.J., Biesty L.M., Gyte G.M.L., Cotter A.M., Ryan E.M., Bouvain M. and Devane D. (2020) 'Membrane sweeping for induction of labour'. *Cochrane Database of Systematic Reviews* Membrane sweeping for induction of labour - Finucane, EM - 2020 | Cochrane Library

National Institute for Health and Care Excellence (NICE) (2021) NG207 *Inducing Labour* Overview | Inducing labour | Guidance | NICE

Royal College of Obstetricians and Gynaecologists (RCOG) (2012) Green-Top Guideline No. 42 *Shoulder Dystocia* Layout 1 (rcog.org.uk)

Royal College of Obstetricians and Gynaecologists (RCOG) (2013) Scientific Impact Paper No. 34 *Induction of Labour at Term in Older Mothers* Layout 1 (rcog.org.uk)

GUIDELINES

SPC (Summary Product Characteristics) Propess ® ® Dec 2018

Package Information Leaflet Propess ®: Ferring. Sept 2017

SPC Prostin E2 vaginal tablets Feb 2018

Package Information leaflet Prostin E2 Vaginal Tablets: Pfizer. Jul 2016

BNF 75 British National Formulary September 2017 BMA & Pharmaceutical Press, London

Appendix 1

Standard Operating Procedure for Risk Assessment and Risk Stratification for Women Requiring Obstetric Care in the Southern HSC Trust

STANDARD OPERATING PROCEDURE

Author & Job Title	
Responsible Directorate:	Surgery and Clinical Services
Issue Date:	31.01.2025 (updated 25.02.2025)
Review Date:	21.03.2025

Version Control

Version:	
5	



Standard Operating Procedure for Risk Stratification and Risk Assessment for Women Requiring Obstetric Care in Southern HSC Trust

PURPOSE

Maternity care in the SHSCT is holistic, individualised, and woman-centred, taking into consideration a woman's physical, mental, emotional, social and cultural circumstances and needs. The purpose of this document is to describe the process of identifying women who, when pregnant, are at higher risk of physical maternal and/or fetal complexities and indicating where evidence-based care during pregnancy and/or birth is delivered most safely in a specific unit.

Risk assessment is a fundamental aspect of antenatal care and applies to all women. However, the action in this protocol may require women with certain risk factors to be strongly advised by their midwife and/or consultant obstetrician to have their birth (and in some cases, full antenatal care) in Craigavon Area Hospital (CAH), where there is the wider infrastructure of co-adjacent services in Endocrinology, Surgery, Critical Care, and Neonatology.

Furthermore, risk assessment is a dynamic process. In the case of maternity care, the booking appointment is the first in a series of risk assessments undertaken at every appointment in the antenatal period to ensure care is provided by the appropriate health professional(s) in the most appropriate clinical setting. Thereafter, at each antenatal contact, the risk assessment must be reviewed to ensure women remain on the correct care pathway.

It should be recognised that despite clinical advice some women may choose to continue their antenatal care and plan their birth at Daisy Hill Hospital (DHH) or by home birth. In line with NICE guidance (2023) the woman must be supported so she can continue to make decisions about her care. She should be reassured that the maternity care team will continue to be there to assist her, that she can change her mind and that the decisions she makes will not affect how care is provided to her.

A respectful relationship should be established with the woman in order to ask her about her care preferences, being mindful of the words, tone and non-verbal cues used. The multidisciplinary team will facilitate a discussion with the woman in line with the regional guidance provided for women who consider or choose care 'outside of guidance'. The discussion includes the completion of a regional proforma (PHA, 2023), which is shared with the woman, lead professionals, and other specialities involved in her care.

IMPLEMENTATION & MONITORING

This SOP is for implementation with immediate effect and the categorisation should be applied to all women 'booking' for their pregnancy care across the Trust from now onwards,

having ensured they fully understand and consent to the decision. It will also apply to those women already booked and form part of their ongoing antenatal care assessments.

There will be a requirement for a retrospective risk assessment and realignment of pathways for women who would have been deemed at higher risk of complexity requiring care in CAH, had this version of this SOP been in place when they first booked with their pregnancy.

Application of this SOP will be monitored via clinical audit.

Standard Operating Procedure for Risk Stratification and Risk Assessment for Obstetric Patients in the Southern HSCTrust

RISK ASSESSMENT FOR WOMEN @ FIRST BOOKING FOR ANTENATAL CARE		
Risk Indicator (Medical)	Recommended Pathway	
	Antenatal Care	Birth
➤ 3 or more caesarean births	Choice of Locality	Craigavon
➤ Epilepsy	Consultant Led Antenatal Care Epilepsy nurse specialist in attendance at clinic on CAH site.	Craigavon
➤ Previous major bowel surgery including stoma surgery	Consultant Led Antenatal Care to 30 weeks (transfer third trimester) - Choice of Locality	Craigavon
➤ Obesity – weight 120Kg or BMI ≥ 50 (at booking)	Consultant Led Antenatal Care - Choice of Locality	Craigavon
➤ Diabetes outside pregnancy	Craigavon	Craigavon
➤ Previous anaesthetic difficulties	Pathway agreed in conjunction with Consultant Anaesthetist	
➤ Cardiac disease	Pathway agreed in conjunction with Cardiologist (pathway may include Belfast Trust)	
➤ Renal disease	Pathway agree in conjunction with Consultant in Renal Medicine.	
Risk Indicator (Obstetric)	Antenatal Care	Birth
➤ Multiple pregnancy	Consultant Led Antenatal Care - Craigavon	If less than 34 weeks' gestation – Craigavon. If more than 34 weeks' gestation, women should be offered choice of locality
➤ Previous uterine rupture	Consultant Led Antenatal Care - Craigavon	Craigavon

ONGOING RISK ASSESSMENT - DURING ANTENATAL CARE		
Risk Indicator (Obstetric / Medical)	Recommended Pathway	
	Antenatal Care	Birth
➤ Impaired GTT / Gestational diabetes	Transfer Antenatal Care to Craigavon	Craigavon
➤ Developing pre-eclampsia (early recognition in line with risk factors)	Dependent on gestation severity and stability of woman.	Individualised depending on severity and gestation
➤ Low, anterior placenta at structural anomaly scan with history of previous caesarean birth	Transfer Antenatal Care to Craigavon for assessment	If not associated with placenta accreta spectrum, women can be offered choice of unit for birth. Craigavon or Belfast if placenta accreta spectrum
➤ Previous upper segment or classical caesarean incision with an anterior placenta	Transfer Antenatal Care to Craigavon	Craigavon
➤ Other complex medical conditions	Best model of antenatal care available as recommended by medical specialists	To be decided by multidisciplinary input from medical specialities, Obstetrics and Anaesthetics

Appendix 1 - Process for all women that are identified through – ‘The Standard Operating Procedure for Risk Assessment and Risk Stratification for Women requiring Obstetric Care in the Southern HSC Trust’.

Booking IOL / planned caesarean birth

Booking Induction of Labour.

Contact CAH DOU to agree and confirm induction date with the woman.

DOU Ext: 60289

Booking a planned caesarean birth.

Contact CAH DOU to agree and confirm caesarean birth and pre op date.

CAH DOU Ext 60289

N.B. Pre-op must be arranged for CAH for blood bank purposes.

Telephone Triage in Maternity Admission and Assessment Unit

Woman reports that she is in labour: -

- Full history to be taken, prompted questions should be used with reference to SOP.
- If risk factors identified, advise woman to attend CAH as limited surgical/speciality cover on DHH. Reassure the woman that this is in line with Trust Process.
- DHH Midwife to contact CAH Admission and Assessment Unit on Ext **61830** with the woman's details.

Woman reports pregnancy related concerns: -

- Full history to be taken, prompted questions should be used with reference to SOP.
- Where risk factors are identified, the case should be discussed with ST3+ /SAS Obstetrician, and a decision should be made regarding where the lady should attend for review.
- If attendance in CAH is advised, DHH Midwife to contact CAH Admission and Assessment Unit on Ext **61830** with the woman's details.

Presentation to Maternity Admission and Assessment Unit

Woman presents in labour (any gestation).

- Urgent escalation to Band 7 Labour Ward Midwife and ST3+ /SAS for risk assessment to determine if transfer deemed safe due to limited surgical cover.
- Communication by DHH Obstetric team to the Obstetric team on CAH site advising of transfer.
- DHH Midwife to contact CAH Labour Ward Band 7 advising of transfer. SBAR communication to be used. (Delivery Suite Ext **62345/62335**)
- NIAS contacted and blue light ambulance requested. Consider IV cannulation whilst awaiting ambulance.
- Midwifery assistance required during this transfer. Fetal heart does not need to be auscultated throughout the journey as this will not change management plan.
- If transfer not deemed safe Consultant Obstetrician must be contacted for advice.

Presents to MAAU but not in labour.

- Escalate to Labour Ward B7 and ST3+ /SAS for clinical review.
- If risk factors identified and transfer of care is deemed necessary, CAH Obstetric team to be contacted and case discussed.
- Email to CAH DOU for urgent AN review appointment if >37 weeks.
dayobstetric.unit@southerntrust.hscni.net
- If admission is warranted, transfer to CAH should be considered.
- Review records to determine next clinic appointment.
- During out of hours period, woman to be discussed at next Obs and Gynae handover with Consultant Obstetrician input re plan of care.

Appendix 2

Breech Presentation in Labour Counselling + Assessment:

Patients presenting in spontaneous labour with a baby in breech position should all be counselled in an unbiased manner for them to appropriately make an informed decision on mode of delivery.

Decision should depend on the stage of labour, whether factors associated with increased complications are found and availability of appropriate clinical expertise.

1. An ECV should be offered (if in early labour) provided there is no absolute contraindication. Risks and benefits of ECV should be explained and the implications for mode of delivery.
2. Following an unsuccessful or declined offer of ECV, she should be counselled on the risks and benefits of planned vaginal breech delivery versus caesarean section:

- ☐ If a breech baby is born by planned caesarean section this very slightly reduces the risk of the baby not surviving (perinatal mortality)
There are three reasons for this:
 1. As the baby is born at 39 weeks it is often born slightly earlier.
 2. Risks that are unique to breech labour.
 3. Risks of labour in general not specific to a breech baby
- ☐ When planning delivery for a breech baby, the risk of perinatal mortality is approximately 0.5/1000 with caesarean section after 39 weeks and approximately 2.0/1000 with planned vaginal breech birth. This compares to approximately 1.0/1000 with planned birth where a baby is headfirst.
- ☐ Planned vaginal breech birth increases the risk of low Apgar scores (scores assigned to a baby when it is born to indicate whether support is required) and serious short-term complications, but has not been shown to increase the risk of long-term harm.
- ☐ Planned caesarean section for breech presentation at term carries a small increase in immediate complications for the mother compared with planned vaginal birth.
- ☐ Maternal complications are least with successful vaginal birth; planned caesarean section carries a higher risk, but the risk is highest with emergency caesarean section which is needed in approximately 40% of women planning a vaginal breech birth.

Caesarean section increases the risk of complications in future pregnancy, including

1. Opting for vaginal birth after caesarean
2. Increased risk of complications at repeat caesarean
3. The risk of an abnormally invasive placenta (placenta accrete spectrum)

☐ An individualised assessment of the long-term risks of caesarean section are based on individual risk profile and reproductive intentions.

☐ Caesarean section has been associated with a small increase in the risk of stillbirth (1/1000) for subsequent babies but it's uncertain why this occurs.

☐ The presence of a skilled birth attendant is essential for safe vaginal breech birth. Due to lack of enough numbers of vaginal breech deliveries, it is difficult to assess or maintain skills and experience of the birth attendant. To gain experience obstetricians use breech manoeuvres at caesarean section and also simulate breech births using mannequins.

☐ If near or in active second stage of labour caesarean section should not be routinely offered

☐ **Preterm Labour-** Routine caesarean section for breech presentation in spontaneous preterm labour is not recommended. The mode of birth should be individualised based on the stage of labour, type of breech presentation, fetal wellbeing, and availability of an operator skilled in vaginal breech birth. Labour with a preterm breech should be managed as with a term breech.

Assessment

The following should be assessed if appropriate, when time and circumstances permit. The patient should be informed that the presence of any of these will result in a higher risk planned vaginal breech birth:

- ☐ Hyperextended neck on US scan
- ☐ Estimated Fetal weight >3.8kg
- ☐ Estimated fetal weight less than 10th centile
- ☐ Footling Breech presentation
- ☐ Evidence of Antenatal Fetal compromise

Signed :

Position:

Date

